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THE EFFECT OF A STUDY SKILLS PROGRAM ON WITHDRAWAL RATES IN A HIGH RISK COURSE

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Abstract

THE EFFECT OF A STUDY SKILLS PROGRAM ON WITHDRAWAL RATES IN A HIGH RISK COURSE

John D. Watson

This study examines the effect of a Study Skills support program in reducing attrition in a high risk introductory level course. One hundred and twenty-one first year Cegep students, enrolled in twelve sections of Introductory Accounting, were randomly assigned to a Study Skills program (SSP) to be completed either first semester or second semester. At the completion of the first semester, comparisons were made using chi-square and analysis of variance, of pass, fail and withdrawal rates for both groups in a high risk course and a low risk course. While no significant effect was found by risk or SSP, a significant interaction was found in a direction opposite from expected. Significantly more Study Skills group students withdrew from the high risk course than the non Study Skills group. A ten scale learning and study skills inventory, LASSI, was administered in both groups. Overall, students in Study Skills scored significantly better in information processing, use of study aids and self-testing than students not yet enrolled in Study Skills.

In conclusion, the SSP appears to have an effect on pass, fail and withdrawal rates in specific courses. While the SSP utilized in this study appears to be more beneficial in improving performance in English (low risk) courses, it has a negative impact on performance in Accounting I (high risk) courses. A redesign of the SSP is necessary in order to significantly improve performance in a high risk course. Efforts aimed at improving motivation may contribute to a higher success rate in high risk courses based on the significant difference between successful and unsuccessful students' scores on this subscale.

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I would like to acknowledge and thank three individuals who made significant contributions to the completion of this study.

Firstly, without the help of the Learning Skills Coordinator, Gail Booth, this study would not have been possible. Not only did Gail cooperate in creating places to accommodate the experimental group, she very graciously provided assistance with administering and scoring the Learning and Study Strategies Inventory.

Secondly, I would like to thank my secretary for transforming my handwriting into a legible document and for managing to survive the stormy sessions when the computer screen flashed "STOP SPSSX WARNINGS".

Last but not least, I would like to thank my daughter Tamara for faithfully and accurately entering all the data.

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CHAPTER I

The Study

Introduction

The reality of declining enrollment at post secondary institutions has prompted a great deal of research in the last two decades into the area of student retention. Much work (Noel and Levitz , 1987; Tinto ,1982; Pascarella & Terenzini, 1980) has been done in attempting to identify "high risk students" and those factors that contribute to student dropout.

While most efforts (Lara, 1981; Astin, 1975) have centered around identifying student characteristics that lead to withdrawal (high risk students), very little research has dealt with the issue of "high risk courses". The notion of high risk courses does exist among post secondary institutions. For example, it is generally understood by post secondary faculty and administration, that first year Accounting courses tend to be high risk in that they have higher than average withdrawal rates.

A recent study by Winteler (1986) supports the notion of differing withdrawal rates between departments and further supports the notion that different variables contribute to withdrawal rates depending on the department. Variables measured contributing to dropout included entry level grades, institutional and goal

commitment, realization of study expectations, academic integration and social integration. Goal commitment and institutional commitment were found to contribute to academic integration and to persistence. Winteler (1986) found a difference between the Economics Department and Education Department with respect to low grades where intent to drop out was directly influenced by low grades in the Education Department only. Unfortunately the study was limited to a comparison of these two departments only, but did lead to the conclusion that a modification of conditions or remedial intervention in such areas as study expectations and student satisfaction could have a positive effect on dropout prevention.

Blanc, Debuhr and Martin (1983) take the notion of department related variables affecting withdrawal even further to the point of identifying the "high risk course". They define high risk courses as difficult entry-level courses wherein student D and F rates and withdrawals exceed 30 percent of course registrants. This definition of a high risk course remains fairly standard (Friendlander, 1984; Martin & Blanc, 1981) except for Schurr, Ellen & Ruble (1987) who include one more characteristic of a high risk course in their definition. They define a high risk or difficult course as one in which the number of C grades or higher is lower than expected based on the academic preparation of students

enrolled. Blance et al (1983) found that retention was improved in a high risk course by providing a supplementary instruction program. The program combines learning skills instruction with course content. While the program is designed to help students master course content, the primary emphasis is on increasing competency in reasoning and study skills. Students attend regular weekly fifty minute review sessions conducted by a leader competent in the subject field. Attendance is voluntary, with average attendance at 6-1/2 hours per semester. Given the nature of the program, it is not surprising that the retention rate is improved in the high risk course. What remains unclear in this particular study is the effect of motivation on improved retention as a result of voluntary participation in the supplementary program.

Is it supplementary instruction alone that improves retention or are students going to have a better retention rate because they are highly motivated and seek out assistance? Since all students participated in Blanc et al (1983) on a voluntary basis, it is likely that motivation does play a major role. This study could have provided more insight into the causes of withdrawal had assignment to the supplementary program been compulsory.

While the concept of a supplementary instruction

program or Study Skills program is not new, traditionally they have been support programs designed to improve the retention rate of high risk students. Support program here is defined as the typical voluntary participation of students in tutorials designed to help with reasoning, reading, note taking, planning of study schedules and exam taking. High risk students are defined as those students who are perceived to be least likely to succeed or remain enrolled because of particular characteristics such as weak entry level marks or due to membership in a particular socio-economic or cultural group.

What I propose to do is measure the effect of a Study Skills program on the withdrawal rate of a high risk course. In this case, high risk course is defined as a first semester course with a traditionally high withdrawal rate in excess of 25 percent.

Review of the Literature

The literature review begins with a review of articles dealing with general characteristics both individual and institutional contributing to retention and attrition. Following initial (a) identification of withdrawal characteristics, the review is then broken into three components; (b) research related to high risk students, (c) Study Skills programs and lastly (d) high risk courses.

a) Identification of Withdrawal Characteristics

Peng and Fetters (1978) found among individual characteristics contributing to college withdrawal were socio-economic status, college grades, educational aspirations and high school preparation. They found that students most likely to withdraw had lower socio-economic status, aspirations, ability and achievement. Unfortunately minorities were excluded because sample size of minority groups other than blacks or whites was estimated to be too small. Two year insititutions were not part of the study. In addition, only 10 percent of the variance was accounted for by looking at individual characteristics.

Gates and Creamer (1984) conducted a similar study and also found that high socio-economic status, high school grades, high ability and a college preparatory program contribute to persistence. This study goes a step further in that variance accounted for was doubled when institutional characteristics were included. In addition, vocational students and two year institutions were included. The significance of this study is the expansion of variables influencing attrition from pre-enrollment characteristics to include institutional conditions, programs and policies.

Pre-enrollment characteristics analyzed were race, sex, ability, socio-economic status, high school grades,

high school program, and educational aspirations. High school program refers to a college preparatory program which was found to positively influence persistence. Student institutional characteristics analyzed that influenced persistence were entry status, enrollment status and curriculum type. Entry status refers to direct entry from high school compared to delayed entrance. Students with delayed entrance tended to persist. Enrollment status refers to part time versus full time with a higher persistence among full time students. Curricular type refers to academic versus vocational programs, with vocational students exhibiting higher persistence. This study makes a strong case for investigating the effect of institutional programs, policies and organizational patterns on persistence. With retention rates varying from program to program, retention strategies rather than being global in nature would be more effective if designed to assist the high risk groups.

In summary, the student with a delayed entry, not directly from high school, into a vocational program on a full time basis is most likely to persist and not require the assistance of intervention strategies. A student entering directly from high school with low grades without the benefit of a college preparatory program in a regular academic program on a part-time basis, would be more

likely to withdraw and thus require assistance.

b) Research Related to High Risk Students

While isolation of pre-enrollment variables to identify the high risk student initially predominated institutional characteristics as being equally as important if not more so. Pre-enrollment variables refer to such characteristics as ability, high school grades, race, sex, socio-economic status, whereas post enrollment refers to such variables as program, social integration, part-time vs full-time, goal commitment and commuter status. Terenzini, Lorang & Pascarella (1981) found that the higher the degree of integration by the individual into the college system, the greater the commitment to institutional and personal goals. This commitment was defined as believing the student was enrolled in the right institution and it was important for the student to graduate. Institutional and goal commitment was a significant predictor of persistence. Unfortunately as with many of these studies, subjects were volunteers and may have had greater commitment than non-volunteers.

These findings are supported by Pascarella, Duby, Miller & Rasher (1981) who found that measuring nineteen pre-enrollment characteristics did assist in predicting persistence and withdrawal. Only four percent of variance was explained. This study contributes slightly more to

the understanding of persistence by studying a highly dense population of commuters to the campus who traditionally do not integrate as well into college life. Early academic performance was a better predictor of persistence. Consistent with previous studies, voluntary enrollment characteristics than pre-enrollment characteristics.

Focusing on specific post-enrollment experiences contributing to persistence, Pascarella, Terenzini & Wolfe (1986) studied the effects of an orientation program designed to facilitate the students' knowledge of the institution and integration into the institution's social and academic system. Pascarella, Terenzini & Wolfe (1986) measured traditional pre-enrollment variables: sex, ethnicity, high school performance, socio-economic status. They found that students attending orientation had significantly higher levels of social integration and goal commitment resulting in significantly improved retention. While participation in orientation by itself as with pre-enrollment variables was not a significant prediction of persistence, the effect of orientation on social integration was significant. In turn, social integration has a strong influence on persistence. In conclusion, while pre-enrollment characteristics do contribute slightly to predicting persistence, the social integration has an impact on improving retention. Identifying with a

significant other, belonging to a group reduces withdrawal rates. Can participation in a group Study Skills program contribute to this social integration?

c) Study Skills Academic Attitudes Subject Tutoring post-enrollment and institutional characteristics influencing persistence, support programs such as orientation and study skills play a major role. While Pascarella's (1986) orientation study demonstrated indirect effects, research on the effects of more specific support programs such as Study Skills have demonstrated a direct effect.

Forristall-Brown & Brown (1984) found that a Study Skills program designed to improve study skills such as note-taking, reading, text-taking and improve academic attitudes among freshmen had a significant positive impact on persistence. Their program consisted of an eighteen week course where instruction and guidance was provided by upper-class students. Among topics covered were; time management, listening skills, note-taking, test-taking, lab reports, library research, goal setting and reviewing techniques. Unfortunately as with most studies, volunteers were used and in addition, peer counsellors provided instruction. It is impossible to determine if study skills was a direct influence or if peer counsellors assisted with social integration. Since peer counsellors

were trained older students, is it possible that more than Study Skills was learned? It is likely that these peer counsellors also provided, valuable advice on how to get along, institutional values and a sense of belonging to a group.

Curby (1984) reports a significant improvement in grades and retention when a Learning Center provides tutoring support to volunteers. Volunteers, however, tended to have lower academic grades upon entering. The tutoring program took the form of a review of definitions and concepts covered in the preceding lecture. This program was restricted to Economics and Algebra courses and was very content specific. That is, students were given exercises related to lecture content as opposed to assistance with Study Skills. While this approach was found to be effective, it can be very time consuming for students enrolled in more than one high risk course. Furthermore, this approach does little for the student with high entering grades who withdraws or fails a high risk course due to a lack of appropriate study skills.

Behrman, Dark & Paul (1984) found that a Study Skills program conducted over eleven weeks had both a short term and long term positive effect on academic performance and long term attrition was diminished. This structured program offered to volunteers by graduate teaching

assistants, provided instruction in time management, note-taking, test-taking and goal setting. While a positive effect on retention was found, a study skills and attitude assessment was not done to determine what components of the course contributed to improved retention. Once again, motivation was not controlled for.

The positive effects of a Study Skills program for freshmen is supported by Young (1986). He studied the impact of a highly structured support program equivalent to three credit hours offered on a voluntary basis to minority first year students. The major emphasis of this support program was on developing students' research, writing, and learning skills. In addition to social adjustment and self assessment components, a major emphasis was placed on developing study habits. Time management, note taking and library skills were enhanced. Unfortunately a very small sample of thirteen volunteer students was used. While GPA's for this group were higher than minority students not enrolled in the program, little is mentioned about attrition nor is the effect of this program clear as all minority students in the institution were involved in various retention strategies.

Rogers (1984) found that persistence was greater for academically weak students enrolled in a learning assistance course designed to improve basic study skills.

Once again, volunteers were used and little information is provided regarding program content or the nature of basic skill improvement. Attrition rate improved with researchers speculating that some basic skills improved and motivation may have been stimulated which led to more persistence.

Weeks (1987), in her study, examined the effects of providing content specific Study Skills courses. Each instructor in specific courses provided additional content related Study Skills sessions. These sessions were designed to assist students to better learn the particular academic subject matter taught by the instructor. In the Study Skills sessions practical help was provided with note taking, exam taking and textbook mastery. Weeks (1987) found a positive effect on grades and withdrawal rate was reduced. Once again, volunteers were used. That is, students recommended to take the course were compared to students who were recommended but did not follow the program. The effect of motivation remains a question mark. Because instructors of each course provided the Study Skills session, Hawthorne effect may also be possible with enthusiastic instructors giving extra attention to students in specific courses. What is significant about this study is the finding that a Study Skills Support program is more effective for certain subject areas. Weeks (1987) found that study skills was

more effective for Accounting and Behavioral Science than for Math.

In conclusion, a variety of support programs have been used to improve persistence. These include basic Study Skills such as reading, note-taking, as well as content specific programs designed to assist with specific course content. Both types of interventions have been conducted by faculty as well as students. While both types of support programs were found to be effective in reducing attrition, the effect of volunteers and motivation remains unclear. There is a great deal of speculation that volunteers are more highly motivated and would naturally persist to a greater degree.

d) High Risk Courses

Thus far we have examined the research on pre-enrollment characteristics contributing to withdrawal and institutional characteristics and programs contributing to reduction of withdrawal of high risk students. In all cases the emphasis has been on high risk students and institutional withdrawal as opposed to course withdrawal and high risk courses. Friedlander (1984) in a review of support services identifies a growing trend at many colleges to identify "high risk courses" and provide support programs to boost persistence and grades in these introductory courses where historically a high percentage

of students receive unsatisfactory grades or drop out. These support programs consist of early and midterm intervention, use of faculty referral slips, coordination of support services (Learning Center, Advising, Counselling) with content courses, and block programming. Typically, intervention programs take place once a student is identified as being potentially weak or experiencing difficulty. Once a student has performed poorly in a content course, various mechanisms are used to provide support, such as teacher referrals to Learning Centers, Counselling and Advising. These support programs are different from a Study Skills program in that support is usually provided after the student has experienced difficulty and generally takes the form of academic advising and counselling.

Winteler's (1986) study of variables contributing to withdrawal predictability examined not only universities as a whole but also different departments. Winteler (1986) found that withdrawal was directly influenced by low grades in the Education department only. This study raises the question of the need to identify specific intervention strategies to prevent withdrawal in specific departments and courses.

Blanc, Debuhr and Martin (1983) make a significant contribution by identifying high risk courses and finding

that specific support programs for high risk introductory courses with high failure and withdrawal rates improves retention and performance. Blanc, Debuhr and Martin (1983) have shifted the emphasis from high risk students to high risk courses to improve retention. Once again, since volunteers were used it is difficult to assess the role of motivation.

Shurr, Ellen and Ruble (1987) measured the effect of course difficulty during the first semester and subsequent impact on long term grades and retention. They found that poor grades in high risk courses contributed to withdrawal. The implications of this study are profound. The positive effects of intervention strategies to assist high risk students are only a partial solution to increased persistence if no strategies are being used to assist low risk students in high risk courses.

Martin and Blanc (1981) studied the effects of supplementary instruction for students enrolled in high risk courses. They defined high risk courses as introductory level courses in biology, physics, chemistry, history and economics with D or F grades and withdrawals exceeding 40 percent. Participation by volunteers in supplementary instruction groups did have a significant effect on increasing grades and reducing attrition. Once again, motivation was not controlled for.

The literature review demonstrates initial preoccupation with identifying high risk students, that is the student most likely to fail or withdraw from the institution. Typically, high risk students come from lower socio-economic groups, minorities or have poor high school grades. The positive effects of post enrollment institutional intervention are reviewed with a growing trend to identify high risk courses as opposed to high risk students. High risk courses have been identified as introductory level courses such as Accounting where a high failure and withdrawal rate exists. While support programs for high risk courses have a significant effect in reducing attrition, the question of the effect of student motivation remains unanswered. Support programs generally take the form of additional tutoring, study skills programs, content specific support programs, counselling and advising. These programs are provided by faculty and or students. Post enrollment intervention strategies to reduce attrition and studies of these strategies all have one factor in common. Participation in the support program is on a voluntary basis. Do these strategies have the same effect when non-volunteers are used? Will a Study Skills program designed to boost reading, writing, test-taking, note-taking and time management skills ease the transition for first semester students enrolled in a high risk course and contribute to a reduced withdrawal rate?

By providing a Study Skills program to first semester students enrolled in a high risk course, I hypothesize that: (1) students following a Study Skills support (SSP) program will have a lower course withdrawal rate in both high risk and low risk courses (main effect of SS Program), (2) a Study Skills support program will have a greater effect in reducing withdrawal rate in high risk courses than low risk courses (interaction effect of SSPX risk), (3) withdrawal rate will be higher in the high risk course than the low risk course (main effect of risk).

Much research exists identifying characteristics of low risk and high risk students (Gates & Creamer, 1984; Peng & Fetters, 1978). One of the charactreistics of a low risk student, most likely to succeed, is participation in a college preparatory program (Gates et al 1984).

I propose that by using (LASSI) Learning and Study Strategies Inventory to measure differences in attitudes and skills between the experimental and control groups specific characteristics can be identified that contribute to the success of a SS program. While LASSI measures 10 scales; attitude, motivation, time management, anxiety, concentration, information processing, selecting main ideas, study aids, self-testing and test strategies, I propose that improvements in such areas as attitude, information processing and self-testing will contribute to an improved retention rate in a high risk course.

CHAPTER II

Research Method

Selection of the High and Low Risk Courses

Blanc, Debuhr and Martin (1983) define a high risk course as an introductory level course with a high failure and withdrawal rate. Accepting this definition, I have run a course evaluation report for the Fall 87 semester of all courses and sections offered at Cegep John Abbott College indicating course pass, failure and withdrawal rates. As shown in Table 1, the mean withdrawal rate for all twelve sections of Accounting I is 25 percent, while the mean withdrawal rate for all courses at the college is 8 percent.

The standard deviation is 7.02, placing the withdrawal rate in Accounting I more than two standard deviations above the mean. Accounting I has been selected as a high risk course because it is an introductory level course with a high withdrawal rate. In addition, twelve sections offered by eight different teachers allows for teacher effect to be controlled for. Withdrawal rates range from 12 percent to 39 percent for seven of the eight teachers, while one teacher has withdrawal rates of 5 percent and 10 percent.

TABLE 1

Pass, Fail and Withdrawal Rates

For Accounting I By Teacher

Sect	Enroll.	Fail	Grades	Pass	Grades	Withdrawal		Teacher
1	48	11	30.56%	25	69.44%	12	25.00%	OA
2	45	2	6.67%	28	93.33%	15	33.33%	OA
3	39	8	23.53%	26	76.47%	5	12.82%	OB
4	44	17	53.13%	15	46.88%	12	27.27%	OC
5	46	14	38.98%	22	61.11%	10	21.74%	OC
6	40	10	27.78%	26	72.22%	4	10.00%	OD
7	40	13	34.21%	25	65.79%	2	5.00%	OD
8	43	17	62.96%	10	37.04%	16	37.21%	OE
9	45	15	53.57%	13	46.43%	17	37.78%	OE
10	45	14	42.42%	19	57.58%	12	26.67%	OF
11	49	13	30.23%	30	69.77%	6	12.24%	OG
12	39	18	75.00%	6	25.00%	15	38.46%	OH

Withdrawal rates in almost all other multi-section courses tend to range from 0 percent to 15 percent. English has been selected as a low risk course because of its low mean withdrawal rate of 10 percent in forty-nine courses and because it is a required course for all students. In addition, most English courses are multi-section thus enabling a monitoring of teacher effect. While a withdrawal rate of 10 percent is almost half a

standard deviation above the mean, it is consistent with rates of 9 percent for the nineteen Humanities and Philosophy courses which are also required. The mean of all courses tends to be low because of a very low mean withdrawal rate in all eighty-four Physical Education courses of 6 percent. In addition, many complementary courses such as Music and Ceramics tend to have a low withdrawal rate of 6 percent.

Selection of Subjects

Subjects were selected upon registration in Accounting I during the Fall 1988 registration period. All first year students registered in Accounting I received a statement indicating they were requested to sign up for a Study Skills program (see Appendix I). The statement is worded in such a fashion to imply that participation is not optional, thus controlling for motivation. Students were then asked to sign up indicating a preferred time (see Appendix II). Studies measuring the effect of a Study Skills program on retention tend to use students who volunteer for assistance. These students could be more highly motivated and have a lower attrition rate because they will actively search for assistance. By giving students the impression that the Study Skills program is not optional for new students, the variable of greater motivation was controlled for.

Design

The 121 participants were randomly assigned to a Fall session and a Winter session with the Fall group becoming the experimental group receiving treatment and the Winter group becoming the control group. Both groups received notification of assignment by mail with the Fall group receiving Appendix III and the Winter group Appendix IV. This post test control group design controls for all threats to internal validity and in particular allows for control of motivation as a variable through random assignment to treatment.

FALL	R	X	O	
WINTER	R		O	(X)

Initially 156 participants were identified and randomly divided into two groups. Seven subjects were eliminated from the study because they were second year students. An additional ten students were eliminated because their schedules could not be accommodated in the various Study Skills sessions offered. Seventeen students were randomly removed from the control group to keep sample size equal.

Study Skills Treatment

The experimental group were required to participate in a Study Skills Support program of ten weeks duration, meeting 1-1\2 hours per week in the Learning Center. A

Learning Skills specialist assisted students in learning how to:

- manage time effectively
- take better notes
- write better term papers
- prepare for and write exams
- read more carefully

These skills were developed during the ten sessions in the following fashion:

Week I. LASSI was administered to all participants as a diagnostic tool. Students were asked to react to their scores and to identify long term goals based on weaknesses identified by LASSI. A task assignment for the week consisted of keeping a diary of how time was spent during the week.

Week II. Diaries were analyzed with an identification of total times spent on class, study, travel, personal care, leisure activities, and work. Through brainstorming and role playing, solutions were discussed to help avoid procrastination. A pamphlet on procrastination (Appendix VI) was given to each student. All participants were asked to set a goal for the following week.

Week III. Goal attainment success was reviewed. An introduction to learning styles was provided with a self

assessment (Appendix VII). Participants identified themselves as auditory, visual or tactile learners and learned which strategies work best for each learning style. An introduction to long term planning was included in this session.

Week IV. An evaluation of usage of time during the previous week was completed. Participants were given assistance in setting priorities through the use of a daily agenda book (Appendix VIII). This session also included an introduction to self-testing and preparation for test-taking.

Week V. This session concentrated on improving reading strategies using Pauk (1984) as a resource. Timed reading tests (Appendix IX) were used to verify speed and comprehension levels. Emphasis was placed on eye movements, vocalization and use of a pen to drag eyes along printed lines.

Week VI. This session consisted of a continuation of timed readings and vocabulary building activities. Strategies for textbook reading were emphasized with selection of main ideas, concentration and use of author subject index.

Week VII. Using an article (Appendix X) as a resource, the

SQ4R method of study was demonstrated. This process of surveying, questioning, reading, recording, reciting and reviewing is based on part four of Langan (1986) and chapter ten of Pauk (1984). Emphasis was placed on recognizing signal words, headings, taking notes and marking the text.

Week VIII. This session was a continuation of the previous weeks activities stressing note taking, looking for main ideas and recognizing headings. Journal writing and questioning strategies were emphasized.

Week IX. This session on writing of research papers was based on chapter twenty of Pauk (1984). In addition, a librarian gave a presentation of how to research periodical literature and how to use indexes.

Week X. Using chapters eleven to fourteen of Pauk (1984) as a resource, test-taking strategies were outlined with emphasis on preparing for different types of exams, relaxation techniques and reduction of anxiety. Critical and analytical thinking was emphasized throughout.

Data Analysis

Upon completion of the semester, course withdrawal rates were measured. A factorial design was used to measure two main effects and one interactive effect.

Factorial Design:

	COURSE TYPE (Within Factor)	
	High Risk (Accounting)	Low Risk (English)
No Study Skills Support Program N = 60	Withdrawal Rate	Withdrawal Rate
Study Skills Support Program N = 61	Withdrawal Rate	Withdrawal Rate

The two main effects measured were:

1. Does a Study Skills program reduce course withdrawal rate.
2. Do high risk courses have a higher withdrawal rate.

The interactive effect measured is:

1. Does a Study Skills program have a greater effect in reducing withdrawal rate in high risk courses than low risk courses.

These effects were measured using chi-square, T-test and Manova at the .05 level of significance.

Study Skills Questionnaire

In addition to testing for effects of a Study Skills Support program on withdrawal rates, a Study Skills questionnaire was administered to both groups upon completion of the Study Skills Program. The instrument used is the Learning and Study Strategies Inventory (LASSI) (see Appendix V), developed by Dr. C.E. Weinstein of the University of Texas at Austin. It was anticipated that this seventy-seven item inventory measuring ten categories of study skills and attitudes would provide some insight into the specific characteristics that differ between participants and non-participants, thus contributing to reducing withdrawal rate in high risk courses. A difference in attitude, information processing and self-testing was anticipated. Unclear educational goals measured by attitude is a pre-enrollment variable contributing to early attrition. Students scoring poorly on attitude have not developed a recognition of the need to study independently, a skill that is much more necessary at the post secondary level. Similarly, it is assumed that post secondary level instruction will require greater use of inferential and analytical reasoning skills as measured by the Information Processing subscale.

While LASSI measures 10 scales; attitude, motivation, time management, anxiety, concentration, information processing, selecting main ideas, study aids, self-testing

and test strategies, I propose that improvements in such areas as attitude, information processing and self-testing will contribute to an improved retention rate in a high risk course.

Attitude in the LASSI scale refers to what extent students are clear about educational goals, and how important school is to their future. Information processing measures to what extent students use inferential and analytical reasoning skills, outlining, and organizational schemes. Self-testing is a measure of the students' ability to review and use questioning strategies as well as applying new information in novel ways.

LASSI was selected as the preferred measure by the Learning Skills Specialist at John Abbott because of the ten subscales available allowing for an individual diagnostic approach to remediation of Study Skills. Motivation addresses students' self-discipline and willingness to work hard. Time Management is a measure of students' ability to create a schedule, work with distractions and avoid procrastination. The Anxiety scale measures to what extent worrying about school interferes with concentration. Concentration measures the individual's ability to pay close attention to academic tasks. Selecting Main Ideas is defined as the ability to

focus on the key points in a lecture. Students' scores on the Study Aids scale measures their ability to use or create study aids to increase learning and retention. The last scale, Test Strategies, assesses students' ability to prepare for and take exams.

The subscales and corresponding reliability coefficients are:

SCALE	COEFFICIENT ALPHA	TEST-RETEST CORRELATION COEFFICIENT
Attitude	.72	.75
Motivation	.81	.84
Time Management	.86	.85
Anxiety	.81	.83
Concentration	.84	.84
Information Processing	.83	.72
Selecting Main Ideas	.74	.78
Study Aids	.68	.75
Self-Testing	.75	.78
Test Strategies	.83	.81

The LASSI was administered to the experimental group before treatment. The before treatment administering allowed for a diagnostic approach to the Study Skills

program and a more individualized program. Unfortunately such an approach may have had a tendency to contribute inflated post-test scores due to familiarity with test content. It was assumed that a three month interval would render pretest knowledge negligible. Ideally pretest administration to both groups would have been preferential however, test availability prevented pretesting of the control group.

Comparisons of LASSI post-test subscale scores for students withdrawing and persisting were made in an attempt to identify those learning and study strategies that correlated highly with withdrawal from high risk courses.

CHAPTER III

Report on the Findings

Statistically Significant Results

In order to ensure that the Study Skills group and the Non Study Skills group were academically equivalent, Secondary V averages were compared. Group means were 73.75 for the Study Skills group and 75.11 for the Non Study Skills group. These means were not significantly different. $t(119) = 1.17$, $p = .243$

TABLE 2

Means By Method For Secondary V Average, First Term Average, English and Accounting

	Means			
	Secondary V Average	First Term Average	English	Accounting
Study Skills	73.75	68.78	65.90	47.47
No Study Skills	75.11	68.60	60.70	62.70

Pass, fail and withdrawal rates were compared by method (Study Skills, No Study Skills) for Accounting and English using chi-square.

TABLE 3

Pass, Fail and Withdrawal Rates

for Accounting I

	Pass	Fail	Withdrawal	Total Enrollment
Total	276/54%	133/26%	97/19%	508
Study Skills	29/49%	17/28%	15/25%	61
No Study Skills	42/70%	14/23%	4/ 7%	60

TABLE 4

Number of Passes, Failures and Withdrawals (W/D)

By Method for Accounting and English

	Accounting				English			
	Pass	Fail	W/D	Total	Pass	Fail	W/D	Total
Study Skills	29	17	15	61	54	5	2	61
No Study Skills	42	14	4	60	45	10	5	60

Pass, fail and withdrawal rates were found to be significantly different in Accounting by method. X^2 (2,N = 121) = 9.03, p = .010 . The Study Skills group had a higher withdrawal rate and lower pass rate in Accounting.

No significant difference was found in pass, fail and withdrawal rates for English by method. X^2 (2,N = 121) = 3.76, p = .152 .

In order to account for those students who may have failed by not officially withdrawing from the course, the course fail and withdrawal numbers were combined. Pass rates and combined fail withdrawal rates were compared by method for Accounting and English using X^2.

TABLE 5

Number of Pass and Combined Failures and Withdrawals by Method for Accounting and English

	Accounting			English		
	Pass	Failures & W/D	Total	Pass	Failures & W/D	Total
Study Skills	29	32	61	54	7	61
No Study Skills	42	18	60	45	15	60

Results remained consistent using chi-square with the Study Skills group having a significantly lower pass rate and higher combined failure and withdrawal rate, X^2 (1,N = 121) = 5.40, p = .020 . No significant difference was

found in English even by combining fail and withdrawal, x^2 (1, N = 121) = 2.86, p = .091 .

These results were confirmed when using MANOVA for repeated measures. These values were recorded with Pass equal to one, and Fail and Withdrawal equal to two.

TABLE 6

Means of Pass Performance and Combined Failure and Withdrawal Performance by Method for Accounting and English

	Accounting			English		
	Mean	S.D.	N	Mean	S.D.	N
Study Skills	1.525	.504	61	1.115	.321	61
No Study Skills	1.3	.462	60	1.250	.437	60
Total	1.413	.494	121	1.182	.387	121

No main effect of method F(1,119) = .505, p = .479 was found. As expected, a main effect by risk was found F(1,119) = 22.945, p = .000 with the low risk course, English, having a much lower failure and withdrawal rate regardless of method. A significant F(1,119) = 13.86, p = .000 interaction method by risk was found. The Study Skills group had a significantly higher combined failure and withdrawal rate in Accounting.

In addition to testing for differences in actual pass, failure and withdrawal performance, comparisons were made of class average percentages by risk by method.

TABLE 7

Means of Accounting and English

Marks by Method

	Accounting			English		
	Mean	S.D.	N	Mean	S.D.	N
Study Skills	47.47	32.62	61	65.90	19.75	61
No Study Skills	62.70	25.07	60	60.70	23.10	60
Total	55.02	29.99	121	63.32	21.55	121

Using MANOVA for repeated measures, a main effect of risk was found, $F(1,119) = 9.55$, $p = .002$ where English averages were higher than Accounting averages. While no main effect by method was found, $F(1,119) = 1.73$, $p = .190$, there was a significant interaction of method by risk, $F(1,119) = 14.47$, $p = .001$. The Study Skills group had a much lower class average in Accounting.

In order to determine if class averages were significantly different in Accounting due to a larger number of "0's" for withdrawals in the Study Group, analysis of variance was rerun with a value of class

average mark minus ten for each withdrawal. It was assumed that the group with the largest number of withdrawals would have an artificially low average due to the greater number of zero marks. The substituted value was assumed to better represent the projected performance of withdrawing students who would in all likelihood perform below the average but not zero had they not withdrawn.

TABLE 8

Means of Accounting and English Marks By Method Substituting A Value of Average Mark Minus Ten for Each Withdrawal

	Accounting			English		
	Mean	S.D.	N	Mean	S.D.	N
Study Skills	62.60	18.41	58	69.31	13.05	58
No Study Skills	67.01	18.48	55	66.21	14.52	55
Total	64.75	18.50	113	67.80	13.81	113

With substituted values for withdrawals, the main effect of risk was eliminated when a repeated measures analysis of variance was performed. A significant risk interaction by method remained, $F(1,111) = 5.02$, $p = .027$. As with all previous tests, the Study Skills group had a weaker performance than the Non Study Skills group in

Accounting.

In an attempt to isolate characteristics contributing to success and retention, comparisons were made of LASSI post-test subscale scores for; a) students in either Study Skills or No Study Skills, b) students passing Accounting, c) students passing English, and d) students in Study Skills passing and withdrawing from Accounting. These comparisons were made because a sufficient number of students were in each category.

Due to test availability, the Non Study Skills group was not pretested thus eliminating the possibility of measuring pretest/post-test gain and measuring initial differences. However, given the random assignment of students to groups, it is unlikely these differences would be significant.

Students following the Study Skills program scored significantly higher in study aids $t(92) = 2.55$, $p = .012$ and self-testing, $t(192) = 2.01$, $p = .047$. The differences for the other eight scales were not significant.

TABLE 9

Mean Scores and Significance Level For LASSI Subscale Scores by Method

	Group Means			
Scale	Study Skills	No Study Skills	t	p
ATT	29.57	30.88	1.12	.266
MOT	28.13	27.88	.21	.836
TMT	23.46	22.57	.65	.518
ANX	23.78	25.52	1.37	.173
CON	24.73	24.90	.13	.895
INP	26.53	24.50	1.83	.070
SMI	18.17	17.76	.50	.616
STA	24.88	21.92	2.55	.012
SFT	25.46	23.23	2.01	.047
TST	28.40	29.19	.70	.486

Students passing Accounting were compared by method. Students following the Study Skills and passing Accounting scored significantly higher in Information Processing, $t(52) = 2.24$, $p = .029$, Study Aids, $t(52) = 3.01$, $p = .004$ and Self-Testing, $t(52) = 2.67$, $p = .010$.

TABLE 10

Mean Scores and Significance Levels For LASSI Subscale Scores By Method For Students Passing Accounting

	Group Means			
Scale	Study Skills	No Study Skills	t	p
ATT	30.84	31.72	.67	.509
MOT	30.00	28.96	.75	.456
TMT	24.84	23.55	.79	.434
ANX	25.72	26.34	.38	.704
CON	25.96	25.75	.14	.891
INP	27.84	24.82	2.24	.029
SMI	18.76	18.27	.47	.639
STA	27.00	22.62	3.01	.004
SFT	27.76	24.17	2.67	.010
TST	29.40	29.82	.32	.750

Similar results were found when students passing English were compared by method. Students following the Study Skills program scored significantly better in Information Processing $t(79) = 1.96$, $p = .054$ and Study Aids $t(79) = 2.48$, $p = .015$.

TABLE 11

Mean Scores and Significance Levels For LASSI Subscale Scores By Method For Students Passing English

	Group Means			
Scale	Study Skills	No Study Skills	t	p
ATT	29.76	31.38	1.38	.172
MOT	28.81	28.76	.04	.970
TMT	24.04	22.97	.77	.444
ANX	23.95	25.97	1.50	.137
CON	25.09	25.71	.47	.641
INP	27.04	24.71	1.96	.054
SMI	18.38	18.00	.43	.669
STA	25.45	22.38	2.48	.015
SFT	25.85	23.97	1.60	.113
TST	28.38	29.62	1.01	.316

A comparison of LASSI subscales was made of students following Study Skills and passing Accounting compared to those withdrawing from Accounting. The group passing had significantly higher scores in Motivation $t(37) = 2.18$, $p = .035$, Information Processing $t(37) = 2.27$, $p = .029$, Study Aids $t(37) = 2.60$, $p = .013$ and Self-Testing $t(37) = 2.86$, $p = .007$.

TABLE 12

Mean Scores and Significance Levels For LASSI Subscale Scores For Students Following Study Skills and Passing and Withdrawing from Accounting

	Accounting			
Scale	Pass	Withdrawing	t	p
ATT	30.84	27.50	1.57	.126
MOT	30.00	25.29	2.18	.035
TMT	24.84	22.00	1.14	.261
ANX	25.72	23.29	1.12	.270
CON	25.96	23.43	1.20	.238
INP	27.84	23.64	2.27	.029
SMI	18.76	17.00	1.18	.244
STA	27.00	22.00	2.60	.013
SFT	27.76	22.64	2.86	.007
TST	29.40	26.85	1.34	.187

In an attempt to determine what characteristics separate successful students in Accounting without the benefit of Study Skills from those students in the Study Skills program who withdrew from Accounting, a final comparison was made of these two groups. A significant difference was found in attitude $t(41) = -2.33$, $p = .025$ with the successful Non Study Skills group scoring higher.

TABLE 13

Mean Scores and Significance Levels For LASSI Subscale Scores For Students in Study Skills Withdrawing From Accounting and Students Not In Study Skills Passing Accounting

Scale	Study Skills W/D Accounting	No Study Skills Passing Accounting	t	p
ATT	27.50	31.72	2.33	.025
MOT	25.28	28.96	1.83	.075
TMT	22.00	23.55	.70	.486
ANX	23.28	26.34	1.83	.075
CON	23.42	25.75	1.11	.273
INP	23.64	24.82	.83	.413
SMI	17.00	18.27	.94	.351
STA	22.00	22.62	.37	.727
SFT	22.64	24.17	.98	.333
TST	26.85	29.82	1.69	.099

CHAPTER IV

Discussion

While some significant differences were found, this study is limited to an examination of improvements in performance resulting from student effort and participation in Study Skills. It is possible that withdrawal rates in high risk courses could be improved by changes in teacher selection, teaching methods, program modifications and course design.

LASSI was chosen as the instrument to measure acquisition of Study Skills because of the subscale scores available. The validity of this instrument remains to be measured as it has been on the market for a short period of time. Based on the findings of this study LASSI was not particularly successful in identifying those characteristics that contribute to reducing withdrawal rate.

The choice of a generic type Study Skills program concentrating on the development of reading skills was not the best choice of methods for reducing withdrawal in a high risk course. As noted in the literature, a more content specific program would likely have been more effective.

The original hypothesis that a specific retention

program would be more effective in reducing withdrawal rate in a high risk course than a low risk course was not supported. The underlying assumption however that specific retention programs have different effects for specific programs and courses was indeed supported. It appears that the Study Skills program had a negative impact on retention in high risk courses. Certainly significantly more students withdrew from Accounting in the Study Skills group. This poorer performance is also significant when average marks are compared between groups for Accounting.

While a significantly lower average mark would be expected for the Study Skills group because of a higher percentage of 0's for withdrawals, the average mark for the Study Skills group in Accounting is still significantly lower when 0's are substituted with an average minus 10 mark. While there are no significant differences in performance in English, it appears that the Study Skills program had a positive effect in the English average mark as well as first term average. Even though the Study Skills group had a slightly lower entry level average, their first term average was marginally higher and the English mark average was higher than the No Study Skills group.

Despite the hypothesis not being supported, a number

of findings in the literature review are supported. Firstly it is evident that a Study Skills program does not have an equal impact on all types of courses. In this case, English performance was improved which is to be expected with the heavy emphasis placed on speed reading comprehension and selection of main ideas in the Study Skills program. It would appear that a content specific Study Skills program, Weeks (1987) is more effective than a generic Study Skills program for high risk courses, Behrman, Dark & Paul (1984) and Young (1986). While the Study Skills program was intended to be generic in nature, i.e. deal with time management, exam-taking and note-taking, a fair amount of emphasis was spent on developing reading skills. In this regard, the program tended to be more content specific for English rather than Accounting.

Secondly, the concept of a high risk course, Blanc, Debuhr and Martin (1983); Shurr, Ellen and Ruble (1987) is supported with significantly higher failure and withdrawal rates in Accounting regardless of whether students participated in Study Skills or not. While the original intent of this study was to eliminate the effect of motivation by not using volunteers, it appears that motivation may have been artifically introduced through a Hawthorne effect. It would appear that the Study Skills program had a negative impact on failure and withdrawal rates in Accounting compared to the Non Study Skills

group. When failure and withdrawal rates are compared to all students in Accounting (Table 2), it appears that the Study Skills program has had no effect on the experimental group. The absence of a Study Skills program for the control group however has resulted in a significantly lower failure and withdrawal rate.

At the outset both groups were informed that Accounting I was a high risk course, that is, a course with a high failure and drop out rate. Is it possible that the no Study Skills group were aware of the nature of Accounting and not having access to a support program knew that a greater degree of effort was required on their part?

While Accounting I was identified as a high risk course based on failure and withdrawal rates, the fact that it is an introductory level course also contributed to it being identified as high risk. For most students this course is the first contact with accounting and the associated concepts and course material. Students missing the first few classes may fall behind to the point where it is impossible to catch up because of the nature of course content. Students missing several English classes are familiar with approach and content and can catch up in the Library. Such is not always the case with Accounting I where understanding of certain principles is necessary

before proceeding to the next level.

Given that the first few weeks of the semester is a socialization process for new students, it is not uncommon to miss classes in the early stages. Is it possible that the non Study Skills group, pre-warned about Accounting I, treated this course in a different fashion? That is, aware of potential for failure, they began attending immediately and did not fall behind. The Study Skills group on the other hand may have relied on the support program to get them through without realizing the different nature of Accounting I.

This speculation is supported by the one statistically significant subscale score separating those students in the non Study Skills passing Accounting from Study Skills students failing and withdrawing. Non Study Skills students passing Accounting scored significantly higher in attitude. This scale measures the ability to study independently. Students scoring low in this area tend to be unclear on where school and program fits into their future.

Motivation appears to be a factor in contributing to passing Accounting for the Study Skills group. While the Study Skills group generally performed better in Study Aids, Self-Testing and Information Processing, motivation

is significantly higher in the Study Skills group for students passing compared to students withdrawing from Accounting.

In order for the Study Skills program to have a positive effect in improving retention for a high risk course such as Accounting, the findings would suggest that two conditions are necessary. Firstly, in accordance with the literature review this support program needs to be more content specific. That is, just as time spent on reading skills appears to have improved English performance, more time needs to be spent on Accounting skills. This approach supports a second condition, the development of motivation. According to the LASSI definition, those scoring poorly in motivation need to work on goal setting and accept responsibility for specific tasks contributing to school success. Assistance with homework assignments during the Study Skills session through goal setting could assist students recognize that it is their individual efforts that contribute to school success.

The validity of LASSI subscale score comparisons was jeopardized by the use of LASSI as an initial diagnostic tool for the Study Skills group. The original design called for only a post-test following completion of the first semester. Given that the Study Skills group had

prior exposure to test items, their subsequent post-test scores may have been influenced. Secondly, without pretesting both groups, it was impossible to determine if differences existed between the groups prior to treatment. A repeat of this study would require a pretest of both groups.

SUMMARY

The original hypothesis that a Study Skills support program would have a greater impact on reducing withdrawal in a high risk course was not supported. In fact, the reverse happened with a significantly larger number withdrawing from a high risk course when participating in the Study Skills program. The support program appeared to have a general overall positive effect with better English performance and higher first term average. While the original hypothesis was not supported, the concept which spawned the hypothesis was supported. That is, support programs effect specific types of courses differently. Their effect can be maximized by designing them to meet the needs of specific programs and courses. In the case of high risk courses, content specific material should be included to assist students make the link between their own efforts and ultimate success. It is hypothesized that such a procedure would positively influence motivation and subsequently retention.

While Study Skills contributed to improving information processing, use of study aids and self-testing, these particular attributes did not contribute to improving retention or performance in a high risk course. In fact, the greater proficiency in self-testing may have contributed to a higher withdrawal rate in the high risk course by the Study Skills group. Motivation and attitude appear to be the only contributing factors to persistence in a high risk course. This conclusion is supported by a Hawthorne effect for the Non Study Skills group.

Teacher effect was monitored and found not to be a contributing factor. While subjects were assigned randomly to treatment versus no treatment, there was no random assignment to instructor. A check on numbers of treatment group and non treatment group in each section revealed equal distribution, thus ruling out teacher effect.

While motivation was believed to have been controlled for through random assignment, it is possible that a form of motivation was developed by alerting students in the non Study Skills group to the nature of Accounting I and not providing support. It is possible that the Study Skills group relying on the support program waited too long to begin work in Accounting. At the same time with an improved ability to self test, made the decision to

withdraw.

In order to rule out the effect that advance warning of the nature of Accounting I had on the non Study Skills group, this study needs to be replicated without any indication to either group regarding the nature of Accounting I.

It is indeed possible that counselling of students by a "mentor" regarding the nature and requirements of particular courses selected may have a beneficial effect on retention as a specific support program.

It also appears that the particular support program used was more effective in improving performance and retention in English skills. A support program specifically designed to assist with Accounting content would likely have more success in improving retention in this high risk course.

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APPENDIX I

Dear _____

In order to assist you in making your first year a successfule one, you are requested to sign up for a Study Skills program in room H-128.

This Study Skills program runs for 1-1\2 hours per week for 10 weeks, under the direction of a Learning Skills specialist, who will help you to learn how to:

- manage time effectively
- take better notes
- write better term papers
- prepare for and write exams
- read more effectively

The program is offered at the following times:

Monday	10:00 - 11:30	1:00 - 2:30
Tuesday	8:30 - 10:30	11:30 - 1:00
Wednesday	8:30 - 10:00	11:30 - 1:00
Thursday	10:00 - 11:30	1:00 - 2:30
Friday	10:00 - 11:30	

In order to be assured of participaing at a preferred time, you are encouraged to sign up as soon as possible for one of these times in Room H-182. Refund is given when you successfully complete the program.

PLEASE PROCEED IMMEDIATELY TO THE CONTROL CENTER FOR FURTHER DETAILS REGARDING SESSION AVAILABILITY.

APPENDIX II

STUDY SKILLS PROGRAM: 88-3 and 89-1

I wish to participate in the Study Skills program and understand that I will be assigned to either the Fall or Winter session.

My preferred participation time if assigned to the Fall 88 semester is _____.

Student Name: _____
(please print)

Address: _____

_____

Telephone Number: _____

Student Signature: _____

APPENDIX III

September 13, 1988

&name&
&street&
&city&
&post&

Dear &name&:

Your request to participate in the Study Skills Program has been received and I am pleased to inform you that you have been assigned to the Fall session, commencing the week of September 19th.

Should you have any questions regarding session times, please see Gail Booth in H-182.

Thank you for your interest and good luck in your studies at John Abbott College.

Sincerely,

John D. Watson
Registrar

JDW:gm

APPENDIX IV

September 14, 1988

&name&
&street&
&city&
&post&

Dear &name&:

Your request to participate in the Study Skills Program has been received. Due to limited space, you have been assigned to the Winter Session. Please see Gail Booth in H-182 during Winter registration for available times.

Thank you for your interest and good luck in your studies at John Abbott College.

Sincerely,

John D. Watson
Registrar

JDW:gm

LASSI

Learning And Study Strategies Inventory

2165 Sunnydale Blvd., Suite N
Clearwater, Florida 34625

by
Claire E. Weinstein, Ph.D., David R. Palmer, Ph.D.
Department of Educational Psychology, University of Texas at Austin
Ann C. Schulte, Ph.D.
University of North Carolina

Directions

The Learning and Study Strategies Inventory (LASSI) is designed to gather information about learning and study practices and attitudes. On the two forms at right, which you pull out to begin the LASSI, you will find 77 statements related to learning and studying. You are to read each statement and then mark a response according to the following key:

- Not at all typical of me
- Not very typical of me
- Somewhat typical of me
- Fairly typical of me
- Very much typical of me

To help you decide which responses to mark, we would like to explain what is meant by each term.

By **Not at all typical of me**, we do not necessarily mean that the statement would never describe you, but that it would be true of you only in rare instances. Mark an **a** for this response.

By **Not very typical of me**, we mean that the statement generally would not be true of you. Mark a **b** for this response.

By **Somewhat typical of me**, we mean that the statement would be true of you about half the time. Mark a **c** for this response.

By **Fairly typical of me**, we mean that the statement would generally be true of you. Mark a **d** for this response.

By **Very much typical of me**, we do not necessarily mean that the statement would always describe you, but that it would be true of you almost all the time. Mark an **e** for this response.

Please completely darken the appropriate letter. For example, darken the **d** if you feel that the statement is fairly typical of you.

a b c ■ e

Try to rate yourself according to *how well the statement describes you*, not in terms of how you think you should be or what others do. There are no right or wrong answers to these statements. Please work as quickly as you can without being careless and *please complete all the items.*

Both of the forms at right, along with the Directions booklet are two-part, carbonless forms. Take care *not* to stack any of the forms on top of the other when writing since it would damage the forms below.

After reading the directions, tear out *both* two-part forms at right and set this booklet aside. The forms contain the statements you will respond to. This booklet contains information which will be used after you complete the LASSI.

Scoring Directions

After responding to statements 1-77, you may begin the scoring process. Peel off pages 2 and 3 *of the inventory*. These are the pages you marked with your answers. When the pages are removed, you will then see pages 4 and 5 of the inventory. These pages contain copies of the responses you made to the LASSI statements. Notice that each item is accompanied by a number you darkened and a three-letter code, such as ANX. You will use the code for each item as well as your answer to that item in calculating and plotting your scores.

To calculate your scores for the LASSI, you will need to add the numbers that have been darkened for each of the 10 different scales. Write the darkened number for each scale item in the appropriate space below.

For example, look at the first scale, labeled ATT below. The first item number for the ATT scale is item #5. Go to page 4 and find item #5. Copy the darkened number, in this example the number 3 (e.g. 1 2 ■ 4 5), into the space above item (5) on this page. Now find the next item for that scale, item #14. Write the darkened number from page 4 in the space provided.

Do this for all items for the ATT scale. Then carefully add the numbers and write the total at the far right in the space provided. **You will use these numbers again so please double check your work carefully.**

Now finish copying the darkened numbers for each item for all the scales below. Don't forget to add the numbers for each scale.

ATT	___ +	___ +	___ +	___ +	___ +	___ +	___ +	___	=	____ ATT
Item#	(5)	(14)	(18)	(29)	(38)	(45)	(51)	(69)		
MOT	___ +	___ +	___ +	___ +	___ +	___ +	___ +	___	=	____ MOT
Item#	(10)	(13)	(16)	(28)	(33)	(41)	(49)	(56)		
TMT	___ +	___ +	___ +	___ +	___ +	___ +	___ +	___	=	____ TMT
Item#	(3)	(22)	(36)	(42)	(48)	(58)	(66)	(74)		
ANX	___ +	___ +	___ +	___ +	___ +	___ +	___ +	___	=	____ ANX
Item#	(1)	(9)	(25)	(31)	(35)	(54)	(57)	(63)		
CON	___ +	___ +	___ +	___ +	___ +	___ +	___ +	___	=	____ CON
Item#	(6)	(11)	(39)	(43)	(46)	(55)	(61)	(68)		
INP	___ +	___ +	___ +	___ +	___ +	___ +	___ +	___	=	____ INP
Item#	(12)	(15)	(23)	(32)	(40)	(47)	(67)	(76)		
SMI	___ +	___ +	___ +	___ +	___				=	____ SMI
Item#	(2)	(8)	(60)	(72)	(77)					
STA	___ +	___ +	___ +	___ +	___ +	___ +	___ +	___	=	____ STA
Item#	(7)	(19)	(24)	(44)	(50)	(53)	(62)	(73)		
SFT	___ +	___ +	___ +	___ +	___ +	___ +	___ +	___	=	____ SFT
Item#	(4)	(17)	(21)	(26)	(30)	(37)	(65)	(70)		
TST	___ +	___ +	___ +	___ +	___ +	___ +	___ +	___	=	____ TST
Item#	(20)	(27)	(34)	(52)	(59)	(64)	(71)	(75)		

CAUTION - There should be nothing between this two-part form and your desktop.

a = Very much typical of me
b = Fairly typical of me
c = Somewhat typical of me
d = Not very typical of me
e = Not at all typical of me

1. I worry that I will flunk out of school. a b c d e
2. I am able to distinguish between more important and less important information during a lecture. a b c d e
3. I find it hard to stick to a study schedule. a b c d e
4. After a class, I review my notes to help me understand the information. a b c d e
5. I don't care if I finish school as long as I find a husband/wife. a b c d e
6. I find that during lectures I think of other things and don't really listen to what is being said. a b c d e
7. I use special study helps, such as italics and headings, that are in my textbook. a b c d e
8. I try to identify the main points when I listen to lectures. a b c d e
9. I get discouraged because of low grades. a b c d e
10. I am up-to-date in my class assignments. a b c d e
11. Problems outside of school – being in love, financial difficulties, conflict with parents, etc. – cause me to neglect my school work. a b c d e
12. I try to think through a topic and decide what I am supposed to learn from it rather than just read it over when studying. a b c d e
13. Even when study materials are dull and uninteresting, I manage to keep working until I finish. a b c d e
14. I feel confused and undecided as to what my educational goals should be. a b c d e
15. I learn new words or ideas by visualizing a situation in which they occur. a b c d e
16. I come to class unprepared. a b c d e
17. When preparing for an exam, I create questions that I think might be included. a b c d e
18. I would rather not be in school. a b c d e
19. My underlining is helpful when I review text material. a b c d e
20. I do poorly on tests because I find it hard to plan my work within a short period of time. a b c d e
21. I try to identify potential test questions when reviewing my class material. a b c d e
22. I only study when there is the pressure of a test. a b c d e
23. I translate what I am studying into my own words. a b c d e
24. I compare class notes with other students to make sure my notes are complete. a b c d e
25. I am very tense when I study. a b c d e
26. I review my notes before the next class. a b c d e
27. I am unable to summarize what I have just heard in a lecture or read in a textbook. a b c d e
28. I work hard to get a good grade, even when I don't like a course. a b c d e
29. I often feel like I have little control over what happens to me in school. a b c d e
30. I stop periodically while reading and mentally go over or review what was said. a b c d e
31. Even when I am well prepared for a test, I feel very anxious. a b c d e
32. When I am studying a topic I try to make everything fit together logically. a b c d e
33. I talk myself into believing some excuse for not doing a study assignment. a b c d e
34. When I study, I have trouble figuring out just what to do to learn the material. a b c d e
35. When I begin an examination, I feel pretty confident that I will do well. a b c d e
36. When it comes to studying, procrastination is a problem for me. a b c d e
37. I check to see if I understand what the instructor is saying during the lecture. a b c d e
38. I do not care about getting a general education, I just want to get a good job. a b c d e

CAUTION - There should be nothing between this two-part form and your desktop.

a = Very much typical of me
b = Fairly typical of me
c = Somewhat typical of me
d = Not very typical of me
e = Not at all typical of me

39. I am unable to concentrate well because of restlessness or moodiness. a b c d e
40. I try to find relationships between what I am learning and what I already know. a b c d e
41. I set high standards for myself in school. a b c d e
42. I end up "cramming" for almost every test. a b c d e
43. I find it hard to pay attention during lectures. a b c d e
44. I key in on the first and/or last sentences of most paragraphs when reading my text. a b c d e
45. I only study the subjects I like. a b c d e
46. I am distracted from my studies very easily. a b c d e
47. I try to relate what I am studying to my own experiences. a b c d e
48. I make good use of daytime study hours between classes. a b c d e
49. When work is difficult I either give up or study only the easy parts. a b c d e
50. I make drawings or sketches to help me understand what I am studying. a b c d e
51. I dislike most of the work in my classes. a b c d e
52. I have trouble understanding just what a test question is asking. a b c d e
53. I make simple charts, diagrams, or tables to summarize material in my courses. a b c d e
54. Worrying about doing poorly interferes with my concentration on tests. a b c d e
55. I don't understand some course material because I don't listen carefully. a b c d e
56. I read textbooks assigned for my classes. a b c d e
57. I feel very panicky when I take an important test. a b c d e
58. When I decide to study, I set aside a specific length of time and stick to it. a b c d e
59. When I take a test, I realize I have studied the wrong material. a b c d e
60. It is hard for me to decide what is important to underline in a text. a b c d e
61. I concentrate fully when studying. a b c d e
62. I use the chapter headings as a guide to identify important points in my reading. a b c d e
63. I get so nervous and confused when taking an examination that I fail to answer questions to the best of my ability. a b c d e
64. I memorize grammatical rules, technical terms, formulas, etc., without understanding them. a b c d e
65. I test myself to be sure I know the material I have been studying. a b c d e
66. I put off studying more than I should. a b c d e
67. I try to see how what I am studying would apply to my everyday living. a b c d e
68. My mind wanders a lot when I study. a b c d e
69. In my opinion, what is taught in my courses is not worth learning. a b c d e
70. I go over homework assignments when reviewing class materials. a b c d e
71. I have difficulty adapting my studying to different types of courses. a b c d e
72. Often when studying I seem to get lost in details and "can't see the forest for the trees." a b c d e
73. When they are available, I attend group review sessions. a b c d e
74. I tend to spend so much time with friends that my coursework suffers. a b c d e
75. In taking tests, writing themes, etc. I find I have misunderstood what is wanted and lose points because of it. a b c d e
76. I try to interrelate themes in what I am studying. a b c d e
77. I have difficulty identifying the important points in my reading. a b c d e

1. ANX 5 4 3 2 1

2. SMI 1 2 3 4 5

3. TMT 5 4 3 2 1

4. SFT 1 2 3 4 5

5. ATT 5 4 3 2 1

6. CON 5 4 3 2 1

7. STA 1 2 3 4 5

8. SMI 1 2 3 4 5

9. ANX 5 4 3 2 1

10. MOT 1 2 3 4 5

11. CON 5 4 3 2 1

12. INP 1 2 3 4 5

13. MOT 1 2 3 4 5

14. ATT 5 4 3 2 1

15. INP 1 2 3 4 5

16. MOT 5 4 3 2 1

17. SFT 1 2 3 4 5

18. ATT 5 4 3 2 1

19. STA 1 2 3 4 5

20. TST 5 4 3 2 1

21. SFT 1 2 3 4 5

22. TMT 5 4 3 2 1

23. INP 1 2 3 4 5

24. STA 1 2 3 4 5

25. ANX 5 4 3 2 1

26. SFT 1 2 3 4 5

27. TST 5 4 3 2 1

28. MOT 1 2 3 4 5

29. ATT 5 4 3 2 1

30. SFT 1 2 3 4 5

31. ANX 5 4 3 2 1

32. INP 1 2 3 4 5

33. MOT 5 4 3 2 1

34. TST 5 4 3 2 1

35. ANX 1 2 3 4 5

36. TMT 5 4 3 2 1

37. SFT 1 2 3 4 5

38. ATT 5 4 3 2 1

39. CON 5 4 3 2 1

40. INP 1 2 3 4 5

41. MOT 1 2 3 4 5

42. TMT 5 4 3 2 1

43. CON 5 4 3 2 1

44. STA 1 2 3 4 5

45. ATT 5 4 3 2 1

46. CON 5 4 3 2 1

47. INP 1 2 3 4 5

48. TMT 1 2 3 4 5

49. MOT 5 4 3 2 1

50. STA 1 2 3 4 5

51. ATT 5 4 3 2 1

52. TST 5 4 3 2 1

53. STA 1 2 3 4 5

54. ANX 5 4 3 2 1

55. CON 5 4 3 2 1

56. MOT 1 2 3 4 5

57. ANX 5 4 3 2 1

58. TMT 1 2 3 4 5

59. TST 5 4 3 2 1

60. SMI 5 4 3 2 1

61. CON 1 2 3 4 5

62. STA 1 2 3 4 5

63. ANX 5 4 3 2 1

64. TST 5 4 3 2 1

65. SFT 1 2 3 4 5

66. TMT 5 4 3 2 1

67. INP 1 2 3 4 5

68. CON 5 4 3 2 1

69. ATT 5 4 3 2 1

70. SFT 1 2 3 4 5

71. TST 5 4 3 2 1

72. SMI 5 4 3 2 1

73. STA 1 2 3 4 5

74. TMT 5 4 3 2 1

75. TST 5 4 3 2 1

76. INP 1 2 3 4 5

77. SMI 5 4 3 2 1

LASSI

Learning And Study Strategies Inventory

2165 Sunnydale Blvd., Suite N
Clearwater, Florida 34625

Separate this sheet from the Directions booklet before writing prescriptions.

Prescriptions:

User's Manual

A LASSI User's Manual is available to those administering the inventory. This User's Manual includes a history of the instrument's development, a complete description of the ten scales included in the LASSI, a section on administration and scoring, results of pilot and field testing, and the process used in scale construction. In addition, it contains information to help create individual prescriptions for enhancing students' skills.

Ordering Information

Volume discounts are available. Complete information on ordering the LASSI is available from:

H&H Publishing Company, Inc.
2165 Sunnydale Blvd., Suite N
Clearwater, FL 34625
Phone
(813) 442-7760
(813) 447-0835

Plot Your Scores - *School's Copy*

Name: _____
Date: _____
I.D.# _____

The chart below is used to interpret the scores you calculated on page 2 of this booklet. Each column of the table below is labeled using the three-letter codes. Copy your scores from page 2 into the space provided for each scale. Find your score on the scale directly above each scale code and place an X over this number. Do this for each scale.

For example, if your ATT score was 29, find the number 29 on the set of numbers just above the ATT scale name and place an X over the 29, as shown in the example below.

40	31
35	30
30	X
25	--

If you cannot find your exact score, place an X over the next **lowest** number. When you have finished all 10 scale scores, connect the X's to see your learning and study strategies profile.

The columns on the far left and far right of the chart show percentiles. You can use these percentiles to look at your scores in relation to other college students answering the same items.

Each of the three-letter codes indicates a category of learning and study strategies or methods. The meanings of the codes are:

- **ATT** • attitude and interest
- **MOT** • motivation, diligence, self-discipline, and willingness to work hard
- **TMT** • use of time management principles for academic tasks
- **ANX** • anxiety and worry about school performance
- **CON** • concentration and attention to academic tasks
- **INP** • information processing, acquiring knowledge, and reasoning
- **SMI** • selecting main ideas and recognizing important information
- **STA** • use of support techniques and materials
- **SFT** • self testing, reviewing, and preparing for classes
- **TST** • test strategies and preparing for tests

99	39	39	39	39	38	39	25	38	39	39	99
95	38	38	33	36	34	36	23	33	33	37	95
90	37	37	32	34	32	34	22	31	32	35	90
85	36	36	30	33	31	32	21	30	30	34	85
80	35	35	29	32	30	31	--	29	29	33	80
75	**--**	**--**	**28**	**31**	**29**	**30**	**20**	**28**	**--**	**--**	**75**
70	34	34	27	30	--	29	--	27	28	32	70
65	--	33	26	29	28	--	19	26	27	--	65
60	33	32	25	28	27	28	--	--	--	31	60
55	--	--	24	27	26	27	--	25	26	--	55
50	**32**	**31**	**23**	**26**	**25**	**--**	**18**	**--**	**25**	**30**	**50**
45	--	30	22	25	24	26	--	24	--	29	45
40	31	--	21	24	23	25	17	23	24	--	40
35	30	29	20	23	22	24	--	--	23	28	35
30	29	28	19	22	21	23	16	22	22	27	30
25	--	27	18	21	20	22	--	21	21	26	25
20	28	26	17	20	19	21	15	20	20	25	20
15	27	25	15	19	18	20	14	19	19	24	15
10	25	23	14	17	16	19	13	18	18	22	10
05	23	20	12	15	13	17	11	16	16	19	05
01	19	17	09	12	10	14	08	13	12	14	01
	ATT	MOT	TMT	ANX	CON	INP	SMI	STA	SFT	TST	

Plot Your Scores - *Student's Copy*

Name: _____
Date: _____
I.D.# _____

The chart below is used to interpret the scores you calculated on page 2 of this booklet. Each column of the table below is labeled using the three-letter codes. Copy your scores from page 2 into the space provided for each scale. Find your score on the scale directly above each scale code and place an X over this number. Do this for each scale.

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40	31
35	30
30	X
25	--

If you cannot find your exact score, place an X over the next lowest number. **When you have finished all 10 scale scores, connect the X's to see your learning and study strategies profile.**

The columns on the far left and far right of the chart show percentiles. You can use these percentiles to look at your scores in relation to other college students answering the same items.

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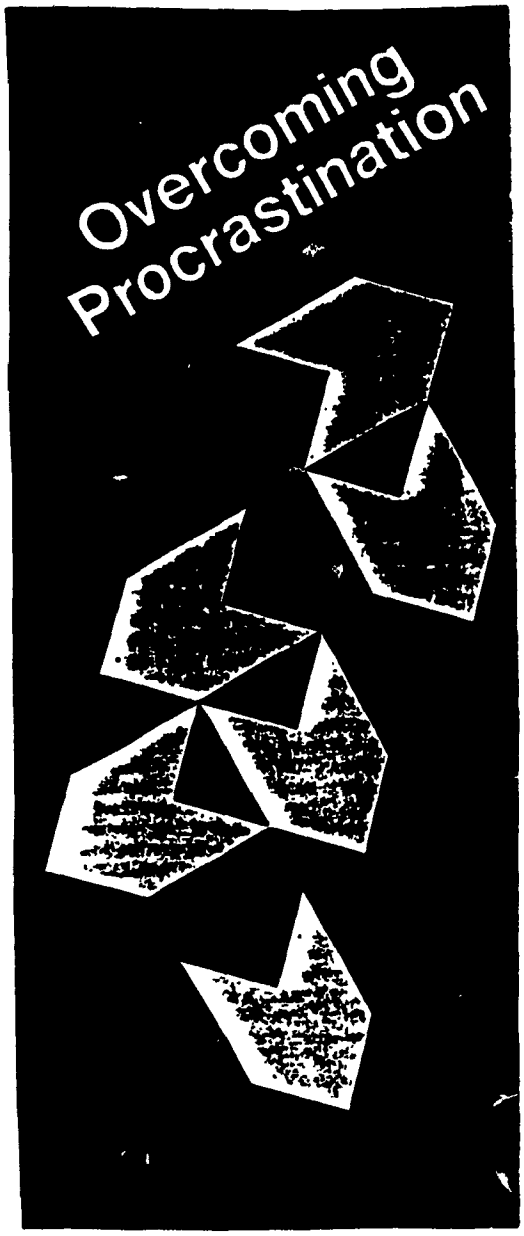
- **INP** • information processing, acquiring knowledge, and reasoning
- **SMI** • selecting main ideas and recognizing important information
- **STA** • use of support techniques and materials
- **SFT** • self testing, reviewing, and preparing for classes
- **TST** • test strategies and preparing for tests

99	39	39	39	39	38	39	25	38	39	39	99
95	38	38	33	36	34	36	23	33	33	37	95
90	37	37	32	34	32	34	22	31	32	35	90
85	36	36	30	33	31	32	21	30	30	34	85
80	35	35	29	32	30	31	--	29	29	33	80
75	**--**	**--**	**28**	**31**	**29**	**30**	**20**	**28**	**--**	**--**	**75**
70	34	34	27	30	--	29	--	27	28	32	70
65	--	33	26	29	28	--	19	26	27	--	65
60	33	32	25	28	27	28	--	--	--	31	60
55	--	--	24	27	26	27	--	25	26	--	55
50	**32**	**31**	**23**	**26**	**25**	**--**	**18**	**--**	**25**	**30**	**50**
45	--	30	22	25	24	26	--	24	--	29	45
40	31	--	21	24	23	25	17	23	24	--	40
35	30	29	20	23	22	24	--	--	23	28	35
30	29	28	19	22	21	23	16	22	22	27	30
25	--	27	18	21	20	22	--	21	21	26	25
20	28	26	17	20	19	21	15	20	20	25	20
15	27	25	15	19	18	20	14	19	19	24	15
10	25	23	14	17	16	19	13	18	18	22	10
05	23	20	12	15	13	17	11	16	16	19	05
01	19	17	09	12	10	14	08	13	12	14	01
	ATT	MOT	TMT	ANX	CON	INP	SMI	STA	SFT	TST	

APPENDIX VI



Procrastination technically refers to the avoidance of a specific task or work which needs to be accomplished. But this technical explanation doesn't begin to capture the emotions triggered by the word. For most of us, the word "procrastination" reminds us of past experiences where we have felt guilty, lazy, inadequate, anxious, or stupid - or some combination of these. It also implies a value judgment; if you procrastinate, you are bad, and as such, you lack worth as a person.

Procrastination and Its Causes.
In order to understand and solve your procrastination problems, you must carefully analyze those situations where your work is not being completed. First, determine whether the cause is poor time management; if so, you will need to learn and develop time management skills. If, however, you know how to manage your time but don't make use of those skills, you may have a more serious problem.

Many individuals cite the following reasons for avoiding work:

- Lack of relevance. If something is neither relevant nor meaningful to you personally, it may be difficult to get motivated even to begin.
- Acceptance of another's goals. If a project has

been imposed or assigned to you and it is not consistent with your own interests, you may be reluctant to spend the necessary time to see it to conclusion.

- Perfectionism. Having unreachable standards will discourage you from pursuing a task. Remember, perfection is unattainable.
- Evaluation anxiety. Since others' responses to your work are not under your direct control, overvaluing these responses can create the kind of anxiety that will interfere with work getting accomplished.
- Ambiguity. If you are uncertain of what is expected of you, it may be difficult to get started.
- Fear of the unknown. If you are venturing into a realm or field, you don't have any way of knowing how well you'll do. Such an uncertain outcome may inhibit your desire to begin.
- Inability to handle the task. If through lack of training, skill, or ability you feel that you lack the personal resources to do the job, you may avoid it completely.

Procrastination Takes Many Forms. Once you have surmounted the emotional block by acknowledging your procrastination (guilt, anxiety, feelings of inadequacy), and after you have analyzed the underlying causes, you need to clearly specify how you procrastinate. Consider the following examples.

1. Do you act as though if you ignore a task, it will go away? The midterm exam in your chemistry class is not likely to vaporize, no matter how much you ignore it.
2. Do you underestimate the work involved in the task, or overestimate your abilities and resources in relationship to the task? Do you tell yourself that you grasp concepts so easily that you need only to spend one hour on the physics problems which would normally takes six?
3. Do you deceive yourself into believing that a mediocre performance or lesser standards are acceptable? For example, if you deceive yourself that a 3.3 GPA will still get you into the medical school of your choice, you may be avoiding the decision to work harder to improve your grade point average and thus may have to alter your career plans. This form of avoidance can prevent you from consciously making choices about important goals in your life.
4. Do you deceive yourself by substituting one worthy activity for another? Suppose you clean the apartment instead of writing your term paper. Valuing a clean apartment is fine but if that value only becomes important when there is a paper due, you

are procrastinating.

5. Do you believe that repeated "minor" delays are harmless? An example is putting off writing your paper so you can watch five minutes of your favorite television program. If you don't return to writing the paper after the five minutes have elapsed, you may stay tuned to the television for the entire evening, with no work being done on the paper.
6. Do you dramatize a commitment to a task rather than actually doing it? An example is taking your books on vacation but never opening them, or perhaps even declining invitations for pleasurable events, but still not pursuing the work at hand nor getting needed relaxation. This way you stay in a constant state of unproductive readiness to work - without ever working.
7. Do you persevere on only one portion of the task? An example is writing and rewriting the introductory paragraph of the paper but not dealing with the body and the conclusion. The introductory paragraph is important, but not at the expense of the entire project.
8. Do you become paralyzed in deciding between alternative choices? An example involves spending so much time deciding between two term paper topics that you don't have sufficient time to write the paper.

What to Do about Procrastination.

If you can visualize yourself in one or more of these vignettes, you may be ready to overcome your problems with avoidance or procrastination. The following is a list of additional steps which may help you to deal with your avoidance problems:

- Extract from the above examples those principles which apply to you. Write them down.
- Make honest decisions about your work. If you wish to spend only a minimal amount of effort or time on a particular task, admit it - do not allow guilt feelings to interfere with your realization of this fact. Weigh the consequences of various amounts of investment in a project and find the optimal return for your investment. This step exposes intentional reasons for avoiding work. If you have been unintentionally avoiding work, admit to yourself that you do want to achieve certain goals and accept the responsibilities involved in meeting those goals.
- Work to acquire an adequate understanding of what is necessary to accomplish a task within a given time frame.
- Distinguish between activities which dramatize your sense of commitment and those which will help you accomplish the task. Devote only that amount of time which is appropriate for each part of a task. Develop an overview

of the entire project and visualize the steps that are needed to reach completion.

Effective Planning.
The larger, the more involved, the project, the more difficult it is to plan effectively to carry it out. The following steps may be helpful:

- Segment the task. The entire job may seem more manageable. Divide the task into small steps.
- Distribute the small steps reasonably within the given time frame. "Reasonably" is the key word; you must allot sufficient time for each step. Do not fool yourself by believing you can do more than is humanly possible.
- Realize that humans periodically need variety and relaxation. Intersperse rewards, relaxation, and gratification for work completed. This will help you feel less resentful of the task and the work that still needs to be done.
- Monitor your progress on the small steps. Watch for the pitfalls discussed earlier. Assess problems when they arise and do something about them quickly. Keep track of the segments and how they fit together to form the whole picture. Reassess time commitments as necessary.
- Be reasonable in your expectations of yourself. Perfectionistic or extremely strict expectations may cause you to rebel or may sabotage your progress.

University of Illinois at Urbana-Champaign.
Counseling Center, a Department of Student Affairs.
University of Illinois at Urbana-Champaign.

APPENDIX VII

HOW DO I LEARN BEST?

BARSCH LEARNING STYLE INVENTORY

Jeffrey Barsch, Ed.D.

Name _____

To gain a better understanding of yourself as a learner you need to evaluate the way you prefer to learn. We all should develop a style which will enhance our learning potential. The following evaluation is a short, quick way of assessing your learning style.

This is not a timed test. Try to do as much as you can by yourself. You surely may, however, ask for assistance when and where you feel you need it. Answer each question as honestly as you can. There are twenty-four questions.

When you have finished, transfer each number to its proper place on page 4. Then, total each of the three columns on that page. You will then see, very quickly, what your best channel of learning is. At that point you will know whether you are visual, auditory, or tactile (Kinesthetic) learner. By this we mean, whether you as an individual learn best through seeing things, hearing them or through the sense of touch (writing).

Barsch Learning Style Inventory (1980)
Academic Therapy Publications
20 Commercial Boulevard, Novato, California 94947
Order No. 246-5-B

Place a check on the appropriate line after each statement.

	Often	Sometimes	Seldom
1. Can remember more about a subject through listening than reading.	_____	_____	_____
2. Follow written directions better than spoken directions.	_____	_____	_____
3. Like to write things down or take notes for visual review.	_____	_____	_____
4. Bear down extremely hard with pen or pencil when writing.	_____	_____	_____
5. Require explanations of diagrams, graphs, or visual directions.	_____	_____	_____
6. Enjoy working with tools.	_____	_____	_____
7. Am skillful with and enjoy developing and making graphs and charts.	_____	_____	_____
8. Can tell if sounds match when presented with pairs of sounds.	_____	_____	_____
9. Remember best by writing things down several times.	_____	_____	_____
10. Can understand and follow directions on maps.	_____	_____	_____
11. Do better at academic subjects by listening to lectures and tapes.	_____	_____	_____
12. Play with coins or keys.	_____	_____	_____
13. Learn to spell better by repeating the letters out loud than by writing the word on paper.	_____	_____	_____
14. Can better understand a news article by reading about it in the paper than by listening to the radio.	_____	_____	_____

15. Chew gum, smoke, or snack during studies. _____ _____ _____

16. Feel the best way to remember is to picture it in your head. _____ _____ _____

17. Learn spelling by "finger spelling" or writing out the words. _____ _____ _____

18. Would rather listen to a good lecture or speech than read about the same material in a textbook. _____ _____ _____

19. Am good at working and solving jigsaw puzzles and mazes. _____ _____ _____

20. Grip objects in hands during learning period. _____ _____ _____

21. Prefer listening to the news on the radio rather than reading about it in a newspaper. _____ _____ _____

22. Obtain information on an interesting subject by reading relevant materials. _____ _____ _____

23. Feel very comfortable touching others, hugging, handshaking, etc. _____ _____ _____

24. Follow spoken directions better than written ones. _____ _____ _____

SCORING PROCEDURES:

OFTEN	=	5 points
SOMETIMES	=	3 points
SELDOM	=	1 point

Place the point value on the line next to its corresponding item number. Next, add the points to obtain the preference scores under each heading.

VISUAL		AUDITORY		TACTUAL (Kinesthetic)	
No.	Pts.	No.	Pts.	No.	Pts.
2	____	1	____	4	____
3	____	5	____	6	____
7	____	8	____	9	____
10	____	11	____	12	____
14	____	13	____	15	____
16	____	18	____	17	____
20	____	21	____	19	____
22	____	24	____	23	____
VPS =		APS =		TPS =	

VPS = Visual Preference Score
APS = Auditory Preference Score
TPS = Tactual Preference Score

My dominant learning style is _____.

HOW TO USE THIS INFORMATION:

This form is to be used in conjunction with other diagnostic tools to help you determine some of the ways you are best able to learn. Discuss your scores with someone who is qualified to interpret them in order to make the best use of the time and effort you have invested.

The ideal in terms of overall learning is a score of <u>32 or greater</u> in all three learning styles (eclectric method).

- most students tend to show a dominant and a "weak" learning style.
- scores <u>below 24</u> are considered low and indicate a strong need for the student to foster and develop a learning mode affecting his/her style ... you <u>can</u> improve on learning methods through conscious efforts!

LEARNING STYLE

Not everyone learns in the same way. In fact, people learn in many different ways. For example, some people learn best when they can work with something new in a "hands-on" way. Others prefer to read about something new before they work with it. Still other people learn best when they can listen to new material. These examples are only a few of the ways in which people learn differently. There are many more.

The way or ways in which you learn best can be called your learning style. No ways of learning or learning styles are necessarily better than any others, but they are different.

What do you know about your own learning style? Right now, ask yourself, "How do I learn best?" Keep in mind that you may learn differently depending on what you're learning. Your learning style includes how you use your senses, how you think, and how you act. So it's not something simple. Rather, your learning style has many aspects or parts. You'll learn about tow of these aspects below and about others as you work through this program.

PERCEPTUAL PREFERENCES

Perception involves how you use your senses. While people use all of their senses as they learn, many or most individuals seem to learn through one particular sense. What sense do you emphasize when you are learning best?

> Auditory learners learn best by hearing and listening.
>
> Visual learners learn best by seeing.
>
> Kinesthetic learners learn best through physical action: by doing, manipulating, and moving.

* If you are a visual learner, you have a high visual score, then by all means be sure you see all study materials. Use charts, maps, filmstrips, notes, and flashcards. Practice visualizing or picturing spelling words, for example, in your head. Write out everything for frequent and quick visual review.

* If you are an auditory learner, that is, have a high auditory score, then be sure to use tapes. Sit in the lecture hall or classroom where you can hear lectures so that you can review them frequently, tape them frequently. Tape your class or lecture notes. After you have read

something, summarize it on tape. Verbally review spelling words and lectures with a friend.

* <u>If you are a tactile (Kinesthetic) learner</u>, that is, have a high tactile score, trace words, for example, as you are saying them. Facts that must be learned should be written several times. Keep a supply of scratch paper just for this purpose. Taking and keeping lecture notes will be very important.

Discuss the results of this test with your teacher or counsellor. You will develop, through conversation, other helpful ways to study and learn more efficiently. Good luck for a more intelligent study pattern.

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DISCUSSING WITH STUDENTS THE CHARACTERISTICS OF SUCCESSFUL STUDENTING

Many new students do not know what a good college student is or what a good college student does They understand good and bad grades in a general way, and they sense that they should attend classes, but that is where their knowledge begins and ends

Most teachers know what a good student is—and is not. For one thing, a good student is not necessarily the most intelligent individual in a class.

Guided by this optimistic precept, I discuss the following list of characteristics of good students at the beginning of the semester. I supply my inexperienced students with a description of what a hard-working student does; I tell them what teachers like to see. By learning about these characteristics, students may better understand the day-to-day and class-to-class behavior of successful students. The idea is to provide inexperienced students with guidelines they can follow which will help them get down to the business of serious, successful studenting.

What Are the Characteristics of Successful Students?

1. Not surprisingly, they attend classes—regularly. Moreover, they are on time. If they miss a session, they feel obligated to let the instructor know why, and their excuses seem legitimate and reasonable. They make sure they get all assignments they missed and understand specifically what was covered in class.
2. They take advantage of extra credit opportunities if they are offered: They demonstrate that they care about their grades and are willing to work to improve them. They often do the optional (and frequently challenging) assignments that many students pass up, such as giving a five-minute presentation that substitutes for an essay.
3. Successful students speak in class, even if their attempts are a bit clumsy and difficult. They ask the questions that the instructor knows many in the class are bound to have, provided they are listening
4. They see the instructor before or after class about grades, comments made on their papers, and upcoming tests. Sometimes they just want to ask a question or make a comment relative to the class discussion.
5. Successful students turn in assignments that look neat and sharp. They take the time to produce a final product that looks good, a reflection of a caring attitude and pride in their work.
6. They are attentive in class. They don't chat, read, or stare out windows. In other words, they are polite and graceful, even if they get a little bored.
7. Almost all work and assignments are turned in, even if every one of them is not brilliant Successful students seem driven to complete all work.
8. The most successful students may well end up at the instructor's office door at least once during the semester: They'll go out of their way to find the instructor and engage him/her in meaningful conversation.

By discussing these characteristics and others with inexperienced students, instructors can point them toward success. It makes sense to provide new students with models and guidelines for the demanding task of doing well in school.

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Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday

Month _____

THINGS TO DO THIS WEEK:

Course	Assignment	Due Date	Estimated Time	Actual Time

Other Appointments/Responsibilities	Date

APPENDIX IX

Child Abuse - Linda Carol Graham

Tommy, 3, was playing in the back yard with his brothers and a couple of friends. Perhaps he was making too much noise, or perhaps he did not clean up when his mother first asked. In any case, his mother said he had been "bad", dragged him into the house and took him to the basement. There she put him in his playhouse and set it afire. Tommy suffered burns over 95 percent of his body, but survived. He required extensive plastic surgery and is now living with his father.

Two-year-old Nancy was not fully toilet-trained, and each time she wet herself her mother placed her in a bathtub of hot water - to teach her a lesson, the mother said. One afternoon, the water was too hot. Nancy suffered second-degree burns from her waist down. Nancy was hospitalized; her mother is receiving counseling. They are now at home together.

There are not isolated examples of parents' conscious or unwitting cruelty to their children. Such cruelty goes on, in some cases with even greater ferocity and physical injury, every day, year after year. Nationally, an estimated 2 million cases of child abuse occurred in 1978, and more than 500,000 of them were reported to health social services agencies.

Child abuse is a phenomenon that knows no social, geographic or racial boundaries. It occurs in the best of families in wealthy suburbs and in rural areas as well. It is, in fact, a national plague that experts say is likely to create another generation of child abusers in America from among those being abused today.

For years, the problem was hidden behind the closed doors of houses or apartments. But, since the passage of laws in the 1970's requiring health and other professionals to report all cases of suspected abuses, a quiet revolution has been occurring. More cases of child abuse are being reported, and social-welfare agencies are getting help for both the children and their parents. That is not to say, however, that the reporting is in any way complete. More than 5,000 cases are reported annually to the Philadelphia County Children and Youth Agency, but a spokeswoman said, "There's a lot more out there that goes unreported." Schools are just now beginning to focus on abuse, the spokeswoman said. "Out of the quarter-million kids within the Philadelphia schools, we received only 300 reports last year. However, the schools are making strides in this area," she said. To increase the

frequency of reporting, institutions that come into contact with injured children are training staff members to recognize abuse. The tremendous amount of stress in today's society - both within and outside the home - is considered one of the main factors in the rise of child abuse.

Poor marital relationships, single parenthood, social and economic problems, unemployment and social isolation add undue stress to our lives. The problem of social isolation is critical. Today people are moving around and finding themselves living either in large city apartment complexes or suburban communities in which they know absolutely no one. In this lonely atmosphere, they try to deal with the pressures of being the parent of one, two or three children.

Dr. Benjamin Price, who sees at least one case of child abuse a week in Einstein Hospital's pediatric clinic or emergency room, believes that "parenting" should be a compulsory subject within the educational system. "If people were fully prepared to cope with the emotional demands of fatherhood or motherhood, many of these problems would slowly decrease," he said. "We can't forget emotional abuse. it is harder to diagnose, but can be just as destructive to the child as any of the more dramatic cases involving burns, bruises or broken bones."

Most physicians and social workers who were interviewed agreed that child abuse and neglect are on the upswing. Though it is without a doubt more visible and more publicized today, child abuse is not a new phenomenon. Infanticide, abandonment, beatings, mutilation - all are a part of the history of child abuse. During the industrialization of America, children as young as 5 years old worked 12 to 16 hours a day in factories and sweatshops. Such working conditions inspired the first welfare efforts to stem child abuse. In 1871, the first formally documented case of child abuse was recorded in New York City. Until then, no intervention had legally been possible. Between 1972 and 1967, all 50 states passed laws requiring identification, reporting and treatment of child abuse by designated social service agencies. It was discovered, however, that these laws were not sufficient. During the 1970's, they were revised to legally bind all professionals who work with children, including doctors, nurses and teachers, to report any suspected case of child abuse or neglect.

Low incomes or unemployment increase the chances of violence, and child abuse is 45 percent higher among blue-collar parents of either sex than among white-collar parents. There are no significant differences between

black and white parents in the rate of abusive violence. However, Jewish parents have the lowest rate of violence. Members of minority religions have the highest. The likelihood of child abuse is lowered when both parents are of the same religion.

According to several physicians and social workers, dealing with the courts and the red tape involved with the backlog of cases frustrates them and adds tension to an already explosive situation. Price cited as an example a case with which he was involved several year ago. "An 18-month-old boy was brought into the emergency room with lesions which were definitely associated with child abuse. This was not the first time he had been examined and treated with these lesions," Dr. Price said. It was suspected that the mother's boyfriend had beaten the child. The welfare department was notified and the child was allowed to return home - if the mother's boyfriend moved out. "The day the child was released , both mother and boyfriend took him home," Price said. Several days later, the child appeared in the emergency room with identical lesions. This time, he was removed from the home and temporarily placed with foster parents. A Family Court trial for the mother was scheduled. "I can still remember how the mother appeared in the courthouse the day of the trial. She dressed the little boy and his three-year-old sister in their Sunday best. The little girl had on a long dress and even had bows in her hair," Price said. After a wait of several hours at the courthouse, the trial was postponed. A few days later the little girl was rushed to the emergency room - dead on arrival, the victim of child abuse.

CHECK YOUR UNDERSTANDING

1. TRUE OR FALSE _____ Fewer cases of child abuse are being reported.

2. According to the passage, the tremendous amount of _____ in today's society is considered one of the main factors in the rise of child abuse.

3. Dr. Price believes that one compulsory subject within the educational system should be
   a. first aid.
   b. parenting.
   c. dealing with stress.
   d. child psychology.

4. The first formally documented case of child abuse was recorded in
   a. 1961
   b. 1776
   c. 1898
   d. 1871

5. TRUE OR FALSE _____ All fifty states have laws requiring the reporting and treatment of child abuse.

6. In trying to prevent and deal with cases of abuse, physicians and social workers are hampered by
   a. the federal government.
   b. exhausted hospital staffs.
   c. the red tape involved with court cases.
   d. all of the above.

7. One factor that increases the likelihood of child abuse is
   a. race
   b. low income.
   c. both of the above.
   d. neither of the above.

8. The main idea of the passage is that
   a. child abuse is a growing problem in America.
   b. child abusers must be punished more severely.
   c. courts must be quicker to prosecute abusers.
   d. unemployment is a major cause of child abuse.

Number wrong: _____ Score: _____

0 wrong = 100%	3 wrong = 63%	6 wrong = 25%
1 wrong = 88%	4 wrong = 50%	7 wrong = 13%
2 wrong = 75%	5 wrong = 38%	

APPENDIX X

THE SQ4R METHOD OF STUDY

Since text books are one of the major sources of information at college, it is important to have a systematic way of reading which lets you know how well you understand and remember what you read. With such a system, reading becomes an active, decision-making process, rather than a passive activity in which your eyes travel over the pages but you don't always understand or remember.

The SQ4R, described below, is one of the methods which can help you to become an active reader.

1) SURVEY - Since learning occurs when you are able to link "new" to "known" in a meaningful way, the survey step helps you to build up background information on the topic about which you will be reading. To survey: Read the title, sub-titles, introductory paragraph, chapter summary (yes, first), and look at the pictures and graphs. If there are few of these "reading aids", read the first and last paragraphs of the chapter, and the first lines of every 3rd or 4th paragraph. The point of the survey is to get an idea of what the chapter is about. This will make the reading of the chapter much easier.

2) QUESTION - If there are questions at the end of the chapter, read them. Think about what you already know about this topic and how much time you will need to spend on it in order to answer the questions. If no questions are provided in the text, make up your own by turning headings and sub-headings into questions. Asking questions helps you to get actively involved with the information. It also arouses interest and focuses attention.

3) READ - Skim quickly through the chapter looking for answers to your questions. This is still a background-building step, so don't be concerned if you feel you aren't learning much. Be sure to use a pencil to direct your attention and to be ready for step 4.

4) RECORD - Read the chapter again and mark the main ideas, by underlining the putting a keyword, or cue, in the margin. The fewer marks, the better, however. Remember that the objective is to get the information into your long-term memory, and this is not done by marking your book, although marking is important in that it identifies what it is you will focus on when you get to step 5.

5) RECITE - This is the point at which you start to learn the information and to monitor how well you have learned it. It involves looking at the keywords, or cues, that you wrote in the margin of the text, saying to yourself what you remember about each cue, and then checking to see if you got it right. Depending on how well you understood, you may decide to read certain parts again...and again...! This is called the self-monitoring process and is the hallmark of the successful student. The RECITE step is hard work. Learning often is hard work!

6) REVIEW - In a week of classes you are introduced to much new information, so it is not unusual to forget something that you knew well a week ago. That's why review is important. Reviewing means turning to the part of the book you were reading a week ago, and, using the cues as reminders, recite (ie. say it to yourself), or write, or do a diagram or a problem, from memory. This, too, is a self-monitoring strategy in that you discover how well you understand and remember the information after a week of forgetting time.

The SQ4R takes advantage of the fact that learning occurs best when it involves all of the language processes. The students sees language in print; he things about the content as he questions and picks out main ideas; he says and hears language as he self-tests through recitation; and he writes language as he records, does problems and writes summaries.

(From the LEARNING SKILLS CENTRE of John Abbott College)