



*ACTES du 11<sup>e</sup> colloque annuel*

*de l'Association québécoise  
de pédagogie collégiale*

*avec la collaboration  
de la Fédération des cégeps*

*Hôtel Delta, SHERBROOKE*

*5, 6 et 7 JUIN 1991*

Élaboration et évaluation du projet « *Success-In-College* ».

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One of the greatest challenges facing college teachers and administrators today is the need to accept and to educate a highly diversified student population who in many cases are unprepared academically. High attrition rates among these students have led to the necessity of implementing special programs where their specific needs to learn and to develop are addressed.

### HIGH ATTRITION RATES

The lack of adequate skills required to succeed in college is a strong threat to retention, and dropout is a real concern. According to Noel & Levitz (1983), in the United States the rate of attrition among college freshmen is about one third, and these dropout rates have remained fairly constant since the mid 1970s. Hoehn and Sayer (1989) report that only about 25% of American students who begin college actually receive a degree.

Dropout has become an increasingly serious problem within the Quebec collegial network. Noël (1988) reported that although 47% of the Quebec population between the ages of 17 and 19 attend Cegep, only 65% of these students finish their programs and receive their diplomas. According to Ducharme (1989), cohort samples from 1976-1982 indicate that the rate of Cegep students receiving their diploma is slightly under 60% and the situation since 1983 has continued to deteriorate.

### THE NEED FOR REMEDIATION

These high student attrition rates have been cause for much concern, and in the United States several national reports including *A Nation at Risk* (1984) produced by the National Commission on Excellence in Education, and *Involvement in Learning* (1984) produced by the National Institute of Education have called for a reform of undergraduate education. In 1987 The Carnegie Foundation for the Advancement of Teaching issued a report produced by president Ernest Boyer entitled *College: The Undergraduate Experience in America*. This study urged institutions to abandon the sink or swim approach for freshmen and to initiate active efforts to help them succeed (Upcraft, Gardner et al, 1989).

In Quebec the Conseil des Collèges, in its 1988 report, listed as two of its three major orientations: (1) to increase the chances of success for all college students and, (2) to renew and develop assistance to students in difficulty. In its 1989 report entitled *Une Meilleure Articulation du Secondaire et du Collégial*, the Quebec Superior Council of Education listed as one of its major recommendations;... "il importe que le cégep offre des cours d'appoint et des mesures de rattrapage suffisantes et adéquates" (p.86).

### STUDENT UNPREPAREDNESS

In order for remedial programs to be effective, they must address the causes of student attrition. Although Noel and Levitz (1989) cite various reasons for this, academic underpreparedness appears to be one of the crucial factors. This lack of preparation has been documented in the areas of reading, thinking, and the use of studying and learning strategies (Noel et al, 1985; Rouche et al, 1984; Weinstein et al, 1988). In addition, studies in North America show that fifty percent of the entering student population do not possess complex intellectual abilities (Boyer, 1987) and may not yet be at stages of development characterized by mature attitudes toward knowledge and learning (Perry, 1981).

The ability to read college level texts is a prerequisite for success in college, however reading scores have been declining steadily (Hunter and Harmon, 1979). According to Rouche et al (1984), today's average high school graduate completes high school with better than a B average and yet reads below the grade 8 level. However, research by Weinstein and Underwood (1985) indicates that when students are taught to use specific reading strategies, their standardized test scores increase significantly. Research by Golinkoff (1976) and Ryan (1980) reiterates the fact that good readers differ from poor ones in their use of a variety of strategies for transforming the information contained in texts so that it becomes easier to understand and to remember.

Critical thinking is an essential tool for learning and success in college (Compton, 1989). Bateman (1987, 1991) reports that college students often lack both background knowledge and thinking skills and specifically have difficulty with logical analysis, synthesis, and critical judgement. Several investigators have stressed the importance of incorporating critical thinking into specific course content (Glaser, 1984; Sternberg, 1985) and Halonen and Cromwell (1986) in particular have reported on the successful teaching of critical thinking in psychology by educators from across the United States.

Critical thinking and reading are activated during the learning process through the use of learning strategies. Learning and reading strategies can be defined as behaviors and thoughts that a learner engages in during learning and that are intended to influence how the learner processes information (Mayer, 1988). According to Weinstein (1988), poor students lack metacognition, that is they are deficient in their use of active learning strategies, and they lack a knowledge and awareness of themselves as learners. Weinstein and Mayer (1986) provide substantial evidence for the hypothesis that learning strategies can be described and taught to learners who are at appropriate levels of maturity, from the preschool years to adulthood. They also report substantial gains in reading comprehension, academic performance, and stress reduction for college students who were taught to use learning strategies. McCombs (1981) reported increased test scores, lower test failure rates, and increases in college students' motivation and the tendency to take more responsibility for their learning as a result of learning strategies training.

The major problem with many remedial programs designed to improve academic performance is that students fail to transfer these newly-learned skills to their other courses (Cross, 1976; Rouche and Snow, 1977). Weinstein (1988) reiterates this when she says that although we know how to teach effective learning strategies, we know much less about how to get students to actually use them. Research indicates that the most effective study skills programs are those that use relevant content as the skills are taught (Gruenberg, 1983), and that involve the students actively in terms of discovering why, when, where, and how these skills can be used (Brown, 1978). Generalizing these skills across the curriculum appears to be a crucial feature of successful learning skills programs (Chipman, 1985).

Academic underpreparedness leads to failure and this affects the learner's self-concept. Coopersmith (1981) has shown that one's perception of oneself is directly linked to academic success and to failure. Studies on college students have shown the self-concept to be an important determinant of academic achievement (Smart & Pascarella, 1986). The relationship among the three variables of study skills, the self-concept, and academic achievement has also been noted (Gadzilla and Williamson 1984).

Finally, research by Tinto (1982) and Benezet (1981) has indicated that persistence in college increases when students feel connected to the institution, specifically to other students and faculty. Students need to feel a sense of both academic and social integration into the college community. In fact, Husband (1976) reports that many students who withdraw are academically very able, but tend to be isolated socially.

Thus, it seems that efforts at remediation should address five factors that influence academic success: (1) readings skills, (2) thinking skills, (3) learning strategies, (4) transferring of skills across the disciplines, and (5) increasing students' social integration into the community.

## STUDENT DEVELOPMENT PROGRAMS IN QUEBEC

A number of remedial programs have been developed locally, including those at Cegep St-Jean-sur-Richelieu (Brodeur, 1989) and at Cegep de Rimouski (Briand, 1987). At Cegep St-Jean-sur-Richelieu students with a weak high school profile were obliged to register in a "programme d'accueil" of three core courses. Brodeur (1989) reports that many students felt that this remedial program had been thrust upon them. Participating teachers reported motivational and discipline problems arising in the classroom. A comparison of experimental and control groups yielded barely significant results and in light of this data, the considerable investment in terms of both human and financial resources was not judged to be worthwhile. The lack of voluntary registration seems to have played a role in preventing this program from succeeding.

At Cegep de Rimouski weak students were strongly encouraged to enroll in a number of core courses. Researchers report that students assume that their acceptance into Cegep is proof that they will be able to handle college-level work, and weak students do not always accept the fact that adjusting to college may require assistance.

The Success-In-College Project was designed at Champlain Regional College, St. Lambert, to provide Social Science review board students (i.e. those falling under Regulation 33 of the Régime Pédagogique who have failed or abandoned half or more of their courses within one semester) with the background knowledge and learning strategies that would allow them to subsequently experience success in college. We were concerned with four main issues: (1) selection, (2) curriculum, (3) social integration, and (4) transfer of skills. Only those students who voluntarily applied for admission to the project because they felt it would suit their needs were accepted. A special curriculum of five academic courses including Humanities, English, Sociology, Psychology, and Political Science, and one Physical Education course was created. The academic courses were designed to provide students with the necessary background knowledge, and with the basic skills and learning strategies that would allow them to experience success. To create a sense of belonging to the institution, students remained together for their six

courses, and both the Physical Education course and a weekly group meeting with a counsellor were designed to promote group cohesiveness. Finally, each course worked to improve reading and thinking skills and the use of learning strategies, and ways to transfer the abilities across the curriculum were discussed at weekly team meetings.

### OBJECTIVES OF THE SUCCESS-IN-COLLEGE PROJECT

The Success-In-College Project has four main objectives:

- (1) To help students to communicate more effectively. Specifically we work on improving their reading, writing, listening, and oral communication skills.
- (2) To help students to become more responsible, independent learners. Students are expected to attend all classes, to hand in their assignments on time, and to plan regular study time.
- (3) To encourage students to value a total education: mind, body, and spirit. The development of background knowledge and intellectual skills is addressed through academic course content. The Physical Education course exposes students to the concepts of health and physical well being as a life style. In the weekly group meeting with the counsellor, issues such as goal setting, anxiety control, and spiritual wholeness are addressed.
- (4) To encourage the development of analytical skills.

### HYPOTHESES

This research hypothesized that selected Social Science review board students could acquire the intellectual skills and learning strategies necessary for academic success if they are provided with a special curriculum. Specifically, students enrolled in the Success-In-College Project during the fall 1990 and winter 1991 semesters, when compared to control group subjects, should show (1) a higher overall average during the semester that they are registered in the project, (2) significant pre- vs. post-test measures of improvement on study habits and attitudes, use of learning strategies, reading skills, thinking skills, and the self-concept, (3) fewer course withdrawals and course failures, and (4) a stronger academic persistence profile, that is a greater chance of returning the following semester and registering for a full course load.

A second major hypothesis was that these intellectual skills and learning strategies could be taught simultaneously through course content, and that the transfer of these skills should be facilitated when content teachers work collaboratively.

### METHOD

#### Subjects

The experimental group subjects included one group of Social Science review board students during the fall 1990 semester (N=25) and one group during the winter 1991 semester (N=30). All of these students had been interviewed by at least two members of the team and had expressed a desire to be admitted to the project.

Control group subjects included one group of Social Science review board students during the fall 1990 semester (N=15) and one group during the winter semester (N=24). The slightly lower number of control group subjects was due to the fact that the total number of review board students who were readmitted with a full course load was limited.

#### Procedure

Review board students received a letter with their end-of-semester grades describing the Success-In-College Project. They were telephoned and if interested in the project, they were requested to come to the college to be interviewed. In addition to expressing a strong desire to become part of the project, desirable candidates included those who had an overall high school average of 70% and above, a current BCU average of 50% and above and, on the Nelson Denny Reading Test, vocabulary scores at or above the 30th percentile and comprehension scores at or above the 40th percentile. However, due to the fact that complete data were not always available for each subject, these criteria were meant to serve as general guidelines.

The fall 1990 experimental and control groups were administered a series of standardized pre-tests in August 1990 and the post-tests were administered in December 1990. The winter 1991 experimental and control groups were administered the pre-tests in January 1991 and the post-tests in May 1991.

## Test Measures

Reading skills were measured through the *Nelson-Denny Reading Test* (Brown et al, 1981). Thinking skills were measured through the *Watson-Glaser Critical Thinking Appraisal* (Watson & Glaser, 1980). Learning skills and strategies were measured through the *Survey of Study Habits and Attitudes* (Brown and Holtzman, 1966), and through the *Learning and Study Strategies Inventory* (Weinstein et al, 1987). Self-esteem was measured through the *Coopersmith Inventory (Adult Form)* (Coopersmith 1981).

## PRELIMINARY RESULTS

A cursory look at the fall 1990 data indicates that of the 25 experimental (SICP) group students we began with, 15 students (i.e. 60%) returned to register during the following (winter 1991) semester. Of the original 15 students in the fall 1990 control group, 9 students (i.e. 60%) returned to register during the following (winter 1991 semester).

Analysis of the data is currently underway and complete results will be published in the final report which will be submitted to PAREA on June 30, 1991.

## DISCUSSION

The Success-In-College Project has been an ambitious undertaking. Although our final conclusions are pending on a complete analysis of the data, several benefits and difficulties that have arisen throughout the past year can be mentioned.

Students in both groups reported that they liked the idea of remaining together for all of their courses. Although they expressed some concern about the stigma associated with belonging to a "special" group on campus, these feelings were usually outweighed by the support, encouragement, and friendship they received from their peers in class. However this strong group cohesiveness has sometimes backfired, and teachers have reported minor disciplinary problems arising in the classroom (e.g. frequent side conversations).

The teachers and resource people in the Success-In-College Project have also found that working together as a team and moving away from the "privatization of teaching" has been a source of growth, motivation, and learning. Despite the enormous input on the part of the team in terms of enthusiasm, class preparation, and psychic energy, many students persisted in refusing to assume responsibility for their own learning. The weekly meetings provided the team with the opportunity to discuss these issues and to offer mutual support and encouragement.

The team has also realized how difficult and complex a task it is to work together and coordinate the courses in order to maximize the transfer of skills across the curriculum. On the one hand, students are accustomed to dealing with content areas in their courses and they expressed resistance when asked to apply the "how of learning" (i.e. learning strategies) to this content. Teachers have also realized that before a strategy can be adequately taught, the criteria it entails need to be established, and both teaching strategies and performance criteria have to be developed. Although preliminary criteria were established in the areas of reading, listening, and oral communication, much work remains to be done.

During this intense fifteen week period, students were closely monitored and they received a lot of feedback both inside and outside of class from their teachers. As a result of this, some self-discovery was inevitable. A good number of students became more committed to higher education. Others realized that at the present time their aspirations lay elsewhere. Helping students come to terms with the crucial role they play in the educational process is perhaps one of the most important consequences of this project.

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