

**EDUCATIONAL CONDITIONS AND PRACTICES  
THAT FOSTER STUDENT ENGAGEMENT  
AND SUCCESS IN STUDIES**

**Framework inspired by the DEEP\* research project  
Directed by Dr George D. Kuh, professor at Indiana University**

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DEEP. Acronym that stands for *Documenting Effective Educational Practice*. Name given to the research project directed by Dr George D. Kuh.

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For ease of reading, unless otherwise specified, the term college will be used to designate any higher education institution, whether college or university, as is the case in the American research.

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## TABLE OF CONTENTS

FOREWORD.....	5
INTRODUCTION.....	7
1. STUDENT ENGAGEMENT: THE KEY TO SUCCESS IN STUDIES.....	9
1.1 THE CONCEPT OF STUDENT ENGAGEMENT.....	9
1.2 DEEP RESEARCH PROJECT .....	11
1.2.1 CONTEXT OF THE RESEARCH .....	11
1.2.2 RESEARCH METHODOLOGY .....	11
2. COMMON CHARACTERISTICS OF EFFECTIVE COLLEGES .....	13
2.1 LIVING MISSION AND A LIVED EDUCATIONAL PHILOSOPHY.....	13
2.2 STUDENT LEARNING AT THE HEART OF INSTITUTIONAL PREOCCUPATIONS .....	16
2.2.1 THE HIGH VALUE PLACED ON STUDIES .....	16
2.2.2 PEDAGOGICAL INNOVATION AND EXPERIMENTATION .....	16
2.2.2.1 LEARNING AND COLLABORATION .....	16
2.2.2.2 INFORMATION TECHNOLOGIES (IT) .....	17
2.2.2.3 TEAMWORK OUTSIDE THE CLASS.....	18
2.2.3 A PASSION FOR STUDENT DEVELOPMENT .....	18
2.2.4 TIME AND ATTENTION DEVOTED TO STUDENTS.....	19
2.2.5 FREQUENT AND QUALITY FEEDBACK .....	19
2.3 ENVIRONMENT ADAPTED TO EDUCATIONAL ENRICHMENT .....	20
2.3.1 NATURAL ENVIRONMENT .....	20
2.3.2 SPACES AND MEETING PLACES .....	21
2.3.3 USE OF STUDENT RESIDENCES .....	21
2.3.4 COLLABORATION WITH THE MILIEU/ENVIRONMENT.....	22
2.4 CLEAR AND SPECIFIC PATHWAY LEADING TO EDUCATIONAL SUCCESS .....	22
2.5 A CULTURE OF ONGOING IMPROVEMENT.....	26
2.6 SHARED RESPONSIBILITY FOR EDUCATIONAL QUALITY AND STUDENT SUCCESS.....	27
2.6.1 STUDENT AFFAIRS: PARTNERS IN SUCCESS.....	28
2.6.2 STUDENTS: MAIN PERSONS RESPONSIBLE FOR THEIR SUCCESS .....	29
3. EFFECTIVE EDUCATIONAL PRACTICES.....	31
3.1 ACADEMIC CHALLENGE .....	32
3.1.1 HIGH STUDENT EXPECTATIONS .....	32
3.1.2 STUDENT SUPPORT .....	33
3.1.3 READING AND WRITING ACTIVITIES .....	33

3.2	ACTIVE AND COLLABORATIVE LEARNING.....	34
3.3	TEACHER-STUDENT INTERACTIONS .....	36
3.4	ENRICHING EDUCATIONAL EXPERIENCES .....	39
3.5	SUPPORTIVE STUDENT ENVIRONMENT .....	40
	CONCLUSION.....	45
	APPENDIX A.....	47
	APPENDIX B.....	49
	Part A .....	50
	Part B .....	55
	APPENDIX C.....	61

## FOREWORD

The mission of the *Carrefour de la réussite au collégial* is to implement activities that are designed to support college-network institutions in achieving their institutional plan for success and to foster an evolution in thinking in matters relating to success, persistence and graduation.

This document, prepared within the framework of the 2009 Symposium “Eliciting and sustaining student engagement in their educational project: winning conditions and practices”, is in keeping with this framework. It is a synthesis of the work of D<sup>r</sup> George Kuh and a team of researchers from Indiana University whose results were published in a 2005 work entitled “Student Success in College: Creating Conditions That Matter”<sup>1</sup>. This thorough research conducted in 20 colleges was able to identify the conditions and educational practices that foster student engagement in studies and in college activities and thus contribute to their success specifically with regard to persistence and graduation.

We know there are significant differences between the institutions studied by D<sup>r</sup> Kuh (mission, structure, functioning, characteristics of student population, etc.) and Quebec CEGEPs. We remain convinced however that the results of this study open interesting perspectives that are likely to fuel reflection and possibly enrich the range of measures put forth by CEGEPs to foster student educational success. This is the spirit in which this synthesis is presented.

The document is divided into five parts. The introduction situates the study and presents briefly what is at stake as well as the challenges facing Quebec CEGEPs with regard to educational success, persistence and graduation. The first chapter is devoted to the concept of student engagement and the impact of this engagement on student success. We also describe the DEEP (Documenting Effective Educational Practice) research project in this first chapter. In chapter two, we list the common characteristics found in DEEP colleges, while chapter three presents the educational practices that elicit student engagement and contribute to student success. These conditions and practices are illustrated by examples observed in effective colleges. In concluding, we revisit the document and offer a few thoughts relating to the application of DEEP research results in Quebec CEGEPs.

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<sup>1</sup> Kuh, G. D., Kinzie J., Schuh, J. Whitt, and Associates (2005), *Student Success in College: Creating Conditions That Matter*, San Francisco, Jossey- Bass, 2005.



## INTRODUCTION

Educational success – a concept encompassing academic success and the personal, social and professional development of students – is a major preoccupation in Quebec, as elsewhere. In a context of market globalization, the economics of knowledge, demographic decline and the scarcity of specialized labour, the education system is challenged at all levels and must intensify its efforts to increase its graduation rates if it is to meet the needs of the job market and support the development of Quebec.

Ever since the college teaching reform of the 90s, but particularly since the adoption of the success plans by individual colleges, a number of initiatives have been undertaken to improve course success, academic persistence and graduation.

These plans, today in their third generation, have made it possible to establish a solid organizational diagnosis with regard to success, persistence and graduation, and to implement a set of helpful and supportive measures for students. Among these: the identification of students at risk, first-session pedagogy, learning assistance centres, success contracts, tutoring, welcoming and integration activities, individual pedagogical help, counselling activities, etc. The efforts put forth to date have made it possible to observe encouraging steps in the right direction.

In spite of this appreciable progress as measured by all indicators, colleges are aware that they must pursue their efforts to promote the success of a larger number of students. Within this context, the study directed by D<sup>r</sup> George D. Kuh on effective educational conditions and practices in 20 colleges provides us with a fresh look at the approaches used to support success and opens interesting perspectives. It should be understood that this research does not offer ready-made recipes or solutions uniquely suited for the problem of persistence and graduation. More accurately, it presents and describes the effective educational conditions and practices that foster student engagement and contribute to their educational success. These systemic approaches challenge all the members of the college community and rest on the belief that the great majority of students enrolled in college can succeed when they commit to their studies and when the college provides them, as needed, with the appropriate help and support.

We believe that CEGEPs could take their cue from this research to analyze their current practices in light of this framework and possibly enrich them by adapting the conditions and practices described in the DEEP project to their local reality.



## CHAPTER ONE

### CONCEPTUAL FRAMEWORK

#### 1. STUDENT ENGAGEMENT: THE KEY TO SUCCESS IN STUDIES

##### 1.1 THE CONCEPT OF STUDENT ENGAGEMENT

It is generally acknowledged that a student's prior academic preparation and motivation are the two factors that best predict success in studies. Therefore, to improve success rates, persistence and graduation, a college would only need to limit its enrolment to well-prepared and motivated students. However, in a society where the democratization of education and the accessibility to higher studies represent absolute values, this solution is inappropriate and unacceptable.

Many fundamental and applied studies have shown that once admitted to college, another factor is likely to have a significant impact on student success, a factor over which colleges have greater control: student engagement in their education project and their participation in college activities. The work of Chickering and Gramson<sup>2</sup>, Astin<sup>3</sup>, Chickering and Reisser<sup>4</sup>, Kuh, Schuh and Whitt<sup>5</sup>, Pascarella and Terenzini<sup>6</sup>, among others, have demonstrated that engaged students integrate better into college, succeed better in their courses and are more likely to persist in their studies up to graduation.

Pascarella and Terenzini, in a major work on the impact of colleges on students, appropriately summarize this situation by stating that:

"The most univocal conclusion emanating from our examination of research conducted since the 1990s is that a college's impact on a student is largely determined by the individual effort and engagement of the student in the institution's academic, social, interpersonal and extracurricular activities."<sup>7</sup>

The concept of student engagement is complex and difficult to define in scope. For the needs of this document, we will adopt the definition

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<sup>2</sup> Chickering, A.W. and Gramson, Z. F. (1987), *Seven Principles for Good Practice in Undergraduate Education*, AAHE Bulletin, 39 (7), 3-7

<sup>3</sup> Astin, A.W. (1987), *Assessment for Excellence: The Philosophy and Practice of Assessment and Evaluation in Higher Education*" American Council of Education

<sup>4</sup> Chickering, A.W. and Reisser, L. (1993), *Education and Identity*, San Francisco, Jossey-Bass

<sup>5</sup> Kuh, G. Shuch, J., Whitt, E. and Associates (1991), *Involving Colleges: Successful Approaches to Fostering Student Learning and Personal Development Outside the Classroom*, San Francisco, Jossey-Bass

<sup>6</sup> Pascarella, E. and Terenzini, P. (2005), *How College Affects Students. A third Decade of Research*, Vol. 2, San Francisco, Jossey-Bass

<sup>7</sup> Pascarella, E and Terenzini, P. (2005), *How College Affects Students: A Third Decade of Research*, Vol.2, San Francisco, Jossey-Bass

proposed by Dr George D. Kuh, which was initially published in his work entitled *Student Success In College: Creating Conditions That Matter*<sup>8</sup>, and improved in 2006 in *What Matters To Student Success: A Review of the Literature*.

“Student engagement is first and foremost the time and energy devoted to studies and the other activities offered at college, which reinforce and enrich learning. Student engagement also refers to the ways that the college uses its resources and organizes its programs of study, its learning activities, its assistance and support services, and its academic activities in order to encourage students to participate, thus favouring their satisfaction, persistence and graduation.”<sup>9</sup>

Since student engagement contributes to student success, it is relevant to put in place the conditions and practices that will elicit this engagement. In a notice published in March 2008, the Conseil supérieur de l'éducation stated that:

“Student engagement in the realization of their educational project is closely linked to the success of this project, engagement is a guarantee of success. The fact of supporting and eliciting student engagement is (therefore) a support for success.”<sup>10</sup>

So, what are the conditions and practices that elicit student engagement? How can we measure the degree of student engagement in college?

In 1998, based on the results of fundamental and empirical studies on the subject, Indiana University developed a tool to measure the level of student engagement in college: the National Survey of Student Engagement (NSSE). The 84 items in the NSSE questionnaire refer to specific conditions and educational practices that elicit student engagement which were confirmed by an empirical study.

What's more, the NSSE questionnaire meets high docimological standards in terms of validity and reliability. It is widely used by colleges and universities in the United States and Canada. For example, in 2008 it was completed by over 380,000 students enrolled in 722 colleges.

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<sup>8</sup> Kuh, G., Kinzie J., Shuch, J. Whitt, and Associates (2005), *Student Success in College: Creating Conditions That Matter*, San Francisco, Jossey Bass

<sup>9</sup> Kuh, G., Kinzie, J., Buckley, J., Bridges, B., Hayek, J. and Associates (2006), *What Matters to Student Success: A Review of the Literature*, NPEC

<sup>10</sup> Conseil supérieur de l'éducation, Avis (2008), *Au collégial, l'engagement étudiant dans son projet de formation: une responsabilité partagée avec les acteurs de son collège*, Quebec Government, March 2008

At the end of the annual process of administering the questionnaire, the NSSE Institute, a centre specializing in this operation, compiles the results for each participating college and calculates the national averages, which enables the institutions to set standards. Afterwards, each college receives its results for individual and grouped items on the questionnaire, thus providing it with a good understanding of its strengths, but also enabling it to better identify what elements need improving in relation to educational conditions and practices.

## 1.2 DEEP RESEARCH PROJECT

### 1.2.1 CONTEXT OF THE RESEARCH

Recognizing the impact of student engagement on educational success, a team of 24 researchers directed by Dr George D. Kuh of Indiana University conducted a thorough study to identify and better document the educational conditions and practices that elicit student engagement and contribute to student success. The research project known under the name DEEP, (Documenting Effective Educational Practice) was designed to answer the following question:

“What do effective colleges do to elicit student engagement and to foster student success in studies in terms of persistence and graduation?”

For the research team, the effectiveness of a college was based on 2 criteria: the level of student engagement as measured by the NSSE questionnaire and a higher than expected graduation rate, given the students' characteristics and the attributes of the institution. The positive difference observed **between the real levels of engagement and graduation rates and the expected rates represents the value-added for the college that enables students to obtain higher results than their reference group.**

### 1.2.2 RESEARCH METHODOLOGY

The DEEP research took place over two years, from 2002 to 2004. Due to its magnitude, various research methods, both quantitative and qualitative, were used to collect, treat and analyze the data and the documentation. Two visits lasting several days in each institution made it possible to thoroughly study and validate the analyses and to take the pulse of the institutions. All in all, the team met over 2,700 people distributed as follows: 1,300 students, 750 teachers, 650 personnel (managers, professionals and support staff). The researchers also attended 60 courses and participated in 30 activities (events) on campus.

The selection of institutions to be included in the study was based on various criteria. For starters, only colleges offering 4-year programs or longer, made it through the initial selection stage. Afterwards, based on a pool of 700

institutions, colleges with a high level of engagement, as measured by the NSSE questionnaire administered to first cycle students and a graduation rate higher than expected, made it through the second stage. Finally, criteria such as the college's mission, the characteristics of its student population, the size of the institution, its legal status (public or private), geographic location, etc. also guided the final selection of the 20 colleges (Appendix A). Let us keep in mind that these colleges did not necessarily obtain the highest engagement and graduation rates among the 700. Rather, they obtained higher than expected rates, given their attributes and the characteristics of their student population. Consequently, they bring a value-added to the college experience.

The results of the DEEP study are presented in the following chapters.

## **CHAPTER TWO**

### **PRESENTATION OF RESULTS**

#### **2. COMMON CHARACTERISTICS OF EFFECTIVE COLLEGES**

The DEEP project was able to identify and better document certain educational conditions and practices that elicit student engagement and contribute to student educational success. Researchers observed that some of these characteristics are common to the 20 colleges studied while others are particular to each institution.

At the end of their work, the researchers conclude that effective colleges possess six (6) common characteristics:

1. a living mission and a lived educational philosophy;
2. student learning at the heart of institutional preoccupations;
3. environment adapted to educational enrichment;
4. clear and specific pathway leading to educational success;
5. a culture of ongoing improvement;
6. shared responsibility for the quality of education and student success.

These characteristics are interrelated and interdependent. When assembled, they create a powerful environment that fosters student engagement in their educational project and in the college's activities.

##### **2.1 LIVING MISSION AND A LIVED EDUCATIONAL PHILOSOPHY**

An institution's mission (reason for being) and its educational philosophy justify the budget choices, the programs, the services and the college's activities. In DEEP institutions, this mission is clearly articulated, communicated to the overall community and widely shared by members of the personnel. There is a strong congruity between the official mission statement and the practices lived on a daily basis. As for the educational philosophy, it includes the overall values and beliefs that guide the thinking and the actions of the institution in carrying out its mission. It also makes it possible, among others, to specify what is important for the institution, for the students, for the personnel and for the community.

In addition, the definition of the mission and the articulation of the educational philosophy take several factors into account, notably the particular context of the college and the needs of the students attending it. For instance, Fayetteville University deems it important to allow students from underprivileged environments to pursue higher studies and to help them succeed. These beliefs can be found in its mission statement and in its educational philosophy and they guide its institutional choices.

## Examples

"Alverno College exists to promote the personal and professional development of women. Our mission defines both our short- and long-term objectives. To achieve our mission we must work to create a learning community in search of knowledge and the development of student abilities." Alverno College

"To reach the students where they are... To train students who thought that college studies were inaccessible to them and to prepare them to become creative thinkers and strong leaders." Fayetteville State University

"The right place at the right time. George Mason University is an internationally reputed institution offering a higher quality of education that allows students to develop a critical, analytical and creative mind." George Mason University.

"To prepare leaders for the common good of society." Winston-Salem State University

"To create a multicultural learning community based on academic excellence that enables all the partners of the educational process to contribute to the development of California and the world in a productive, responsible and moral manner." California State University at Monterey Bay (CSUMB)

"Wabash College trains men to become critical thinkers, to act responsibly, to lead effectively and to live humanely." Wabash College

"An engaging college... To create an environment conducive to effective and inspired learning... the primary interest of Miami University are its students." Miami University

"To prepare women to become active and responsible members of the world community." Sweet Briar College

"To foster the development of the person as a whole thanks to a quality general education." Sewanee University

"Enter to learn, depart to serve." Winston-Salem State University

"... through our academic programs and our student activities, Gonzaga encourages students to develop certain personal qualities: self-knowledge and self-acceptance, a spirit of curiosity, the search for truth, a preoccupation for others and a thirst for justice." Gonzaga University

"Macalester University is known for the quality of its programs of study and the importance accorded to multiculturalism, internationalization and service to the community." Macalester University

The institutional mission and the educational philosophy guide the choice of programs, services and activities offered by a college. This alignment – mission, philosophy, programs, services, activities and budget – constitutes one of the strengths of DEEP colleges.

### Examples

Averno College, in keeping with its mission as a college dedicated to the education of girls, implemented a “weekend college” and a range of support services designed to favour access to higher education for women active on the job market who cannot attend the institution during the week.

Fayetteville State University, which welcomes a high percentage of students at risk, offers a multitude of assistance and support measures designed for first-year students: welcoming and socialization activities before the start of the session, remedial courses in certain disciplines in order to make up for deficits, counselling activities tutoring, mentoring, financial help, warning system for students in difficulty, etc.

In accordance with the Jesuit tradition, Gonzaga University set up a Service Learning Center that enables more than 600 students to do about 30,000 hours of volunteering both internally and in the surrounding community.

At Macalester University, 85% of first year students are involved in volunteering projects in the community. Similarly, the university organizes learning communities to foster a dialogue between students of different cultures.

At Miami University, in order to create a culture of engagement, more than 10,000 students are active in 1,800 teams or groups spread over 45 sporting and/or cultural disciplines.

At Sweet Briar College, to facilitate the transition from highschool to college and the integration into the milieu, all first year students are required to live in residence. This practice encourages the forming of support groups, the creation of learning communities, the participation in college life and close contacts between students and teachers.

In order to elicit the participation of students, the University of Kansas adopted a rule stipulating that students must represent 20% of members of all committees working on campus.

These few examples are good illustrations of the mission’s influence on policy choices, programs and services that are implemented to foster student engagement and success.

## **2.2 STUDENT LEARNING AT THE HEART OF INSTITUTIONAL PREOCCUPATIONS**

DEEP colleges make student learning and student personal development an institutional priority. This engagement of the college community is genuine and widely shared. It is reflected in the institution's policies, programs and practices. Consequently, the learning environment is characterized by the high value placed on undergraduate studies, pedagogical innovation and experimentation, a passion for developing student abilities and competencies, the importance of the time and attention accorded to students, and the frequency and quality of feedback on student learning and progress.

### **2.2.1 THE HIGH VALUE PLACED ON STUDIES**

Many colleges offering programs in all three teaching cycles place a higher value on studies at the master and doctorate levels, as well as on fundamental research activities. In DEEP colleges, however, undergraduate studies are highly valorized.

Aware that teaching in itself does not necessarily lead to student learning, DEEP colleges adopt a set of strategies that support the importance accorded to undergraduate studies.

#### **Examples**

Miami University created a number of Faculty Learning Communities consisting of 8 to 10 teachers, beginners and more experienced ones, who get together every week to discuss their teaching practices as well as possible improvements to better foster student learning. A third of the teaching body participates in these learning communities.

George Mason University set up a Center for Teaching Excellence to support and assist teachers in the exercise of their functions.

The University of Texas at El Paso (UTEP) created a Center for Effective Teaching that supports teachers, in particular by offering workshops on strategies for improving learning as well as for using ITs in teaching.

### **2.2.2 PEDAGOGICAL INNOVATION AND EXPERIMENTATION**

#### **2.2.2.1 LEARNING AND COLLABORATION**

DEEP colleges give a higher priority to educational approaches based on active and collaborative learning. This strategy encourages student engagement in their studies and contributes greatly to their success. Among the most widely used strategies, we find: learning by project, case studies, learning by problem resolution, peer tutoring, community action and volunteering, work-study programs, vocational training, the participation in meaningful educational

activities outside the classroom, work placements abroad, etc. All these strategies enable students to get involved in their studies and to reinforce and enrich their formal learning. In short, DEEP colleges actively support students and their learning and adapt their educational strategies to their characteristics.

### **Examples**

At Evergreen College, teachers favour the “seminar” approach to promote exchanges between students and teamwork.

At Fayetteville University, realizing that traditional methods are not effective, given student characteristics, teachers test strategies that elicit participation and collaboration, such as discussion groups, games, simulations, case studies, etc.

At Sweet Briar, teachers design activities that create links between learning in class and the application of knowledge in a real situation. For example, students in a marketing course must create a promotional plan for the university’s school supplies store.

At the University of Texas at El Paso, all first-session students must attend the UNIV1301 course that emphasizes active learning, collaboration among students and peer evaluation.

At Longwood University, students in a course on finance, manage a \$250,000 investment portfolio for the university’s Foundation.

### **2.2.2.2 INFORMATION TECHNOLOGIES (IT)**

DEEP colleges use ITs to elicit student engagement and to develop relationships with their teachers and their peers, in class and outside the class. All these colleges use interactive software such as WEBCT or Blackboard, to enrich teaching, to propose additional reading or exercises, to support exchanges among students, to communicate with teachers, etc. The multimedia tools and the Internet are also widely exploited in teaching and the realization of student assignments.

In short, ITs encourage students to spend more time on their courses and to improve their learning and they contribute to multiplying exchanges among all players in the college community. This is why DEEP colleges allocate important resources to support the teachers and the students in their use of ITs.

### **Examples**

During the summer, Miami University organizes a Technology Summer Institute seminar to initiate teachers and students to the infrastructures and software available at the university and to train them on the use of these resources.

George Mason University offers Student Technology Assistance and Resource seminars to help its students master technological tools. Peer tutoring is widely used to support this initiative.

### **2.2.2.3 TEAMWORK OUTSIDE THE CLASS**

DEEP colleges strongly encourage teamwork, in class but also outside the class.

### **Examples**

At Wofford College, teamwork is part of the institutional norms and is strongly encouraged by the teachers. The existence of many learning communities confirms this institutional orientation.

At the University of Michigan, the importance of study groups and teamwork is widely stressed and encouraged during the counselling activity that precedes the start of courses. To facilitate achieving this objective, the university has set up a learning community that offers support services and enriched classes to over 2,000 students.

### **2.2.3 A PASSION FOR STUDENT DEVELOPMENT**

In keeping with their mission and educational philosophy, DEEP colleges adapt their educational policies and practices to allow students to develop their full potential. This value rests on the belief that all students are capable of learning and succeeding if placed in favourable conditions.

### **Examples**

At Fayetteville University, this passion means welcoming students where they are in their individual progress and moving them forward from there. The university concentrates a significant part of its resources to supporting first-year students and offers a range of services to help them succeed. Evaluating the students' prior academic preparation and planning for remedial courses are part of these measures.

At California University, the knowledge and experiences acquired before admission are evaluated and serve as the starting point for the planning of studies.

## **2.2.4 TIME AND ATTENTION DEVOTED TO STUDENTS**

When learning and personal development are part of institutional priorities, it is essential to reserve and dedicate a considerable amount of time to students. There is no substitute for human contact with the students, whether it is in person or via electronic mail.

### **Examples**

At Sweet Briar College, teachers are informed from the moment they are hired that they will be required to devote a considerable amount of time to their students and involve them in their research projects. Teachers must also be present on campus and participate in a certain number of extracurricular activities. This context promotes student-teacher interactions.

At Longwood University, all first-cycle students are assigned a teacher who acts as their counsellor, providing them with advice and accompanying them until the end of their studies.

In large universities such as Michigan for instance, teacher-student interactions are strongly encouraged, but the initiative must come from the student.

At California University, students and teachers frequently use email to communicate, to obtain feedback on an assignment, to ask questions, to set up meetings, to announce activities such as lectures/conferences, industrial visits, etc.

## **2.2.5 FREQUENT AND QUALITY FEEDBACK**

In DEEP colleges, feedback to students is frequent and provided at the opportune moment. This feedback is generally detailed and transmitted in writing to the student. It focuses on the progress made and areas that need to be improved in order to satisfy educational requirements and objectives. This frequent and quality feedback is highly instrumental in fostering teacher-student interactions.

### **Examples**

At Alverno College, feedback accentuates progress made rather than the mark or grade obtained. Evaluation is designed to be a constructive criticism on strengths, but mostly on weak points requiring improvement.

At Sewanee College, teachers prepare detailed written evaluations and discuss these individually with the student. For students attending this college, these meetings represent a privileged means for establishing a contact with the teacher, which is also the case at Sweet Briar College.

At California University, many teachers require that students transmit a rough version of their work by email before submitting the final version. This strategy promotes the production of higher quality work.

At Evergreen College, evaluation is part of the organizational culture. Teachers write detailed evaluations and discuss them with students.

## **2.3 ENVIRONMENT ADAPTED TO EDUCATIONAL ENRICHMENT**

DEEP colleges, whether large or small, whether located in a large metropolitan city or in a rural setting, adapt to their natural environment and exploit the resources of the milieu to develop their educational offering and enrich student learning. Regardless of the institution's characteristics, students and staff members consider that their college offers interesting comparative advantages and that it is the best place for them to undertake their studies. On top of exploiting the resources of the milieu, these colleges create physical spaces that foster interaction between students and staff members.

This adaptation to enrich the educational experience shows up in a variety of ways, in particular: the use of the milieu's natural resources for the benefit of students, staff members and the institution; the setting up of meeting places; the use of residences for educational purposes; the establishment of partnerships and collaboration agreements with the external environment.

### **2.3.1 NATURAL ENVIRONMENT**

#### **Examples**

Sewanee University, which is located near parks, mountains, forests and rivers, uses its exceptional environment as a laboratory for its forestry, ecology and geology programs. Psychology professors and students exploit it to study animal behaviour. The orientation program for new students takes place on the mountain and includes training workshops as well as socialization activities such as mountain climbing and kayaking down the river.

Evergreen College manages and operates, with the help of its agricultural students, a farm that produces biological food items for the institution's cafeteria.

At the University of Maine at Farmington, outdoor activities are favoured by a large number of students and staff members. Due to its remoteness from large urban centres, this campus blossoms with activities and students and staff members participate in very large numbers.

### **2.3.2 SPACES AND MEETING PLACES**

When possible, DEEP colleges create and set up physical spaces and meeting places that promote interactions among students, between students and teachers, and between students and other staff members.

#### **Examples**

Wofford College has set up a study and work centre for science students near the cafeteria and the teachers' offices. This well frequented space facilitates interactions with teachers and is conducive to group assignments and study. Ursinus College has also set up a similar centre.

Winston-Salem University accords a high priority to the creation of green spaces on campus. These initiatives make it possible to create areas conducive to exchanges and to assignments in small groups.

In 1996, George Mason University built the Johnson Center which has become the heart of the campus. This centre was also designed to integrate educational and extracurricular activities and to facilitate exchanges between the many ethnic groups attending the institution. The centre offers a range of services such as: cafeteria, library, laboratory, classes, cinema, student services, help centre for student success, tutoring, guidance counselling, etc.

Wheaton, Wabash, Macalester and other colleges reserve space at the cafeteria for meals shared by teachers and students.

### **2.3.3 USE OF STUDENT RESIDENCES**

DEEP colleges make the most of their residences to complete and enrich student learning. The use of student residences for educational purposes is part of the educational strategies of DEEP colleges.

#### **Examples**

The University of Kansas organizes learning communities or groupings by field of interest for some 5,500 students who live in residence.

The University of Michigan created the "College in residence" program that promotes exchanges between students and teachers and facilitates active learning in small groups. Certain residences are reserved for students enrolled in a same program of study and who share similar interests such as sciences, engineering, arts, etc.

The University of Miami requires that all its first-year students live in residence. Fourteen of fifteen residences are structured as learning communities and they offer a rich program of academic and extracurricular activities.

### **2.3.4 COLLABORATION WITH THE MILIEU/ENVIRONMENT**

DEEP colleges collaborate with the companies and organizations in the milieu in order to enrich student learning. These agreements not only benefit the students but also the institution.

#### **Examples**

In an effort to meet the needs of the city of Farmington, the University of Maine gives the population access to its library as well as to its sporting and cultural infrastructures. Due to increased traffic this agreement has made it possible to create several new positions on campus for the students. This partnership has also enabled the institution to obtain major subsidies for the construction and maintenance of these infrastructures,

George Mason University makes the most of the intellectual, social, political and cultural richness of the city of Washington. The university takes advantage of its favourable context to conclude agreements that enable its students to do work placements, volunteering, to participate in cultural events, etc. The university has created the Century Club, a non-profit organization composed of leaders from the milieu and staff members, whose mandate is to promote the collaboration between the university and enterprises in the private and public sectors of the Washington region.

Wheaton College makes it possible for about a hundred students to do work placements and to acquire practical research experience in science and technology centres in the Boston region.

Students attending the University of Texas at El Paso collaborate in the operation of 6 health clinics. The Mothers and Daughters program allows students in education to volunteer their services for the benefit of grade 6 students from an underprivileged environment. This program is designed to encourage these young girls to pursue college studies.

Helping elementary students with their homework is part of the volunteer activities of Wabash College students.

### **2.4 CLEAR AND SPECIFIC PATHWAY LEADING TO EDUCATIONAL SUCCESS**

DEEP colleges recognize the importance of making studies meaningful and to specify clearly the pathway that leads to success. From their initial welcome, and often before, students are informed as to the requirements of college studies and the time and energy they will have to devote to their studies in order to succeed. The attitudes and behaviours associated with educational success are clearly presented to them, often by a graduating student. The pathway of studies, from enrolment to graduation, as well as the levels to reach and the demands that must be met are clearly articulated. This planning makes studies meaningful and makes it possible to properly mark the pathway leading to success.

In addition, these colleges present the resources and the measures supporting success and strongly encourage students to use them. DEEP colleges implement counselling and integration programs. They dedicate a significant portion of their resources to first-year students, granting special attention to new arrivals. They set up screening and support programs for students at risk and in failure situations and explain clearly to them the assistance and support resources available to help them succeed. In many colleges, participating in activities such as orientation day, meeting with the educational classroom assistant during the summer prior to the first session, registering for remedial courses, etc, is compulsory. As much as possible, DEEP colleges try to correct certain deficits with regard to prior academic preparation or motivation before the start of the first session.

DEEP colleges accord a great deal of importance to the acculturation and socialization of new students. These institutions have high expectations for students and staff members. These expectations are communicated from the moment of registration and are reaffirmed during welcoming, orientation and socialization activities organized at the start of the session. On the other hand, a set of services and measures are offered at the opportune moment to help students meet these expectations. This preoccupation for first-year students is based on the belief that students who make it through this level successfully will be more persistent in their studies and a greater number of them will graduate. (A study conducted by SRAM's research department confirms this hypothesis.)<sup>11</sup>

### Examples

Wofford College uses official publications to clearly define their expectations to students and to present the support measures offered by the institution.

Gonzaga University's GEL (Gonzaga Experience Live) program provides students with an opportunity to spend a weekend on campus and discover the richness of college studies and the importance of creating relationships between the students themselves as well as with staff members.

Wabash College, recognized for its high academic standards, informs students as soon as they are admitted that, although their studies will be demanding and difficult, meeting this challenge is both satisfying and valorizing.

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<sup>11</sup> SRAM (2006), *Étude sur la persévérance et la diplomation des étudiants en fonction de la réussite en première session*. Research department, December 2006.

Recognizing the full importance of easing the transition from highschool to college and of providing students with the tools and support that will allow them to persevere in their studies up to graduation, DEEP colleges pay particular attention to new students. They allocate a significant part of their human and financial resources to first-year students to help them develop, early on in their academic journey, the attitudes and skills required for success in their studies. This front loading of resources for first-year students is characteristic of all DEEP colleges.

## Examples

Winston-Salem University created the First Year College, which welcomes all new first-year students. The programs of study and the help and support services are located in one building. Each student has a teacher assigned as a mentor for the whole first year of studies.

California University requires that all first-year students participate in a Freshman Year Experience seminar which allows them to familiarize themselves with the behaviours needed for successful studies, to create support groups among peers and to develop an Individual Learning Plan.

The University of Michigan offers a program to ease the transition from highschool to college for students considered at risk or from underprivileged areas. This program comprises a number of help and support measures such as: remedial courses, counselling initiatives, tutoring, mentoring, learning assistance and workshops, etc.

Fayetteville University offers a program called Creating Higher Expectations for Educational Readiness (CHEER) during the summer preceding the first-session to help students acquire the academic and social knowledge and skills they will need to be successful in their studies.

Acculturation and socialization activities also apply to new staff members. California University, for example, organizes a mandatory orientation session for all new teachers. This activity provides an opportunity to present the institution's values, to discuss characteristics of the student population, to discuss effective educational practices and to specify the expectations with regard to the teacher's role.

DEEP colleges clearly explain to students what needs to be done to succeed and encourages them to collaborate together. Meanwhile, students are not left to fend for themselves and nothing is left to chance. The college's mission, values and expectations are communicated the first day of registration. Summer courses are used to improve knowledge and skill levels for those with previously determined academic deficiencies. All newly registered students must participate in welcoming and counselling activities. Screening systems allow for the early identification of students experiencing academic or adaptation difficulties. Finally, various support measures are used to assist these students.

## Examples

At Fayetteville University, first-session teachers are on the front line of the early-warning system and they transmit to the Student Success Center the list of students experiencing difficulties. SSC personnel ensure a quick follow-up with the student experiencing academic or adaptation difficulties.

At Winston-Salem University, the Student Success Center closely follows the students' academic progress, notably class attendance and results of exams and tests from each course. When a student is identified as experiencing problems, the SSC solicits the teachers' opinion to help determine the origin or cause of the difficulties and any possible solutions.

## **2.5 A CULTURE OF ONGOING IMPROVEMENT**

DEEP colleges are in a continuous learning mode and an ongoing improvement process. They are constantly evaluating and analyzing their performances, comparing their results to those obtained by similar institutions, seeking new ways to accomplish their mission and promote student success to an even greater extent. They channel their resources into programs and activities that contribute the most to reaching the institution's objectives and abandon those that do not produce the anticipated results. They are constantly revising their policies and their practices.

### **Examples**

In an effort to improve its very poor performance in terms of academic persistence and graduation, the University of Texas at El Paso (UTEP) implemented the Entering Student Program (ESP) to meet the academic and social needs of first-year students. This integrated program offers all the services required to facilitate students' transition from highschool to college and success in their studies. These services include: admission, registration, counselling, individual pedagogical support, mentoring, tutoring, remedial courses, access to support centre resources, personalized follow-up, integration into a support group, etc. Also, all help and support measures are systematically evaluated and only those that prove to be effective are retained. Finally, UTEP is studying the factors at the root of student difficulties and is seeking appropriate solutions. For example, discovering that many students were facing financial difficulties at the beginning of the year and were unable to buy their school manuals, the university set up an emergency book loan fund.

In order to improve its student persistence rates, Fayetteville University implemented a structure which brings together all newly enrolled students at University College. This college within a college is dedicated to first-year students and has its own structure which offers a wide range of services and support measures to meet the specific needs of the student population.

The University of Michigan set up a special fund to assist innovative educational projects and activities that support success. These projects are submitted by students, teachers and other staff members.

In keeping with its educational philosophy which favours integral learning, Wofford College innovated by establishing learning communities that integrate two fields of interest such as science and religion, psychology and statistics, English and Spanish, science and literature, etc.

Miami University supports learning communities for teachers to allow them to exchange ideas on ways of improving their teaching.

In DEEP colleges, the programs of study are systematically evaluated and revised in order to ensure that they meet the needs of the students and society. DEEP colleges enjoy a very high degree of autonomy in this regard and have very broad margins of manoeuvre.

The University of Maine created a Work Initiative Program for students on campus and 1,000 of its 2,000 students are gainfully employed on campus.

Finally, it is important to note that DEEP colleges base their decision making on data and information collected in a systematic manner using surveys, questionnaires, investigations, various reports, studies, etc. Performance indicators and standardization measures were developed, notably with regard to student success, satisfaction, persistence, course success, graduation rate, etc. This information is used as a starting point for innovation and certain organizational changes.

## **2.6 SHARED RESPONSIBILITY FOR EDUCATIONAL QUALITY AND STUDENT SUCCESS**

In DEEP colleges, the institution's mission, educational philosophy and values are widely shared by all members of the college community: teachers, staff members and students. In such a context of mutual pride and respect, solid collaborations develop among those involved in the realization of the educational mission, but particularly between the academic administration, the departments and the teachers. Personnel from academic affairs and members of student affairs have the most direct contact with the students and are therefore in a position to contribute more to their success.

In addition, DEEP colleges expect their students to assume full responsibility for their studies and their participation in college life. Students are also invited to encourage their peers to assume these responsibilities.

Encouraging colleges to make student success an institutional priority that challenges all members of the college community requires strong leadership at all levels of the organization. In DEEP colleges, upper management articulates the mission, communicates it regularly and sets the tone. This vision is favourably welcomed by the college community, especially by academic affairs, student affairs and the students themselves. Finally, mechanisms for concerted efforts will allow for free exchanges on these questions to smooth over the differences and reach a larger consensus.

### **2.6.1 STUDENT AFFAIRS: PARTNERS IN SUCCESS**

Student affairs in DEEP colleges offer a wide range of services and activities that support student success and promote persistence in their studies up to graduation. Although they may vary from one college to the next, these services often include: counselling and psychology, financial support, lodging (residences), social, cultural and sport-related animation, support centres, recruitment on occasion, individual pedagogical support, the office of registrar and the library, community action, health services, services for students with disabilities, assistance centres for success, welcoming activities for foreign students, etc.

In many colleges, academic affairs are responsible for the students' intellectual development, while student affairs are essentially responsible for their psychological and social development. However, in DEEP colleges the first mission of student affairs is to support and reinforce the realization of the college's educational mission. Thus, the organizational structure of student affairs and the programs, services and activities offered reflect the dominant dimension of the college's mission and are in keeping with the latter. Student affairs do not operate in isolation but in close collaboration with academic affairs. While each maintains its own identity, they recognize the other's competencies and depend on their respective strengths to develop and implement a multitude of programs, services and activities that promote learning, personal development and, ultimately, persistence and graduation.

The implementation of welcoming and integration programs for newly enrolled students, the creation of learning communities, community action, internship programs, work placements abroad, work-study programs, setting up assistance centres for success, the implementation of tutoring and mentoring programs, sport-studies, etc., reinforce and enrich formal learning and promote student success.

#### **Examples**

At Miami University, the First Year Experience is a welcoming activity for new students, which is offered before the beginning of the first session. It has been created jointly by student affairs and academic affairs and contains important academic content along with socialization activities which make it easier to integrate into college life and form bonds between the students.

At Longwood University, student affairs personnel actively participate in counselling days organized for new students and distribute certain modules from the counselling seminar that is offered during the first session.

At Ursinus College, all the personnel working in the residences are trained to screen students who are experiencing academic or adaptation difficulties, which allows them to quickly receive the appropriate help and support.

### **2.6.2 STUDENTS: MAIN PERSONS RESPONSIBLE FOR THEIR SUCCESS**

DEEP colleges strongly encourage students to assume responsibility for their learning. In some colleges, academic standards are very high and demand a sustained student engagement. Moreover, administrative regulations encourage students to participate in the institution's governance. Sometimes, students and their associations are responsible for planning and organizing extracurricular activities. Finally, in some colleges, certain services are provided by these students. In short, all these measures have the same objective: stimulate student engagement in college life.

#### **Examples**

At Wofford College, many students work as tutors, moderators, research assistants, lab support staff, technological consultants, etc.

At the University of Maine, student participation in governance is part of the institution's objectives and is mandatory (administrative regulation).

At Wheaton College, students take part with the teachers in a revision process of the programs of study, which not only contributes to improving teaching practices but also increases interactions between teachers and students.

At Gonzaga University, students contributed to the planning of the annual campaign to recruit new students and participated in its implementation.

Having presented the common characteristics of effective colleges, in the next chapter we will cover certain educational practices that are prioritized by these establishments.



## CHAPTER THREE

### 3. EFFECTIVE EDUCATIONAL PRACTICES

The DEEP project research team identified initially six (6) common characteristics in effective colleges that have been described in the previous chapters. The ensuing analyses also made it possible to specify and document certain practices that promote student engagement and contribute greatly to student success.

Researchers grouped these practices into five categories for analysis purposes:

1. Degree of academic challenge
2. Active and collaborative learning
3. Student-faculty interaction
4. Supportive campus environment
5. Enriching educational experiences

Each category corresponds to a conceptual framework of the NSSE questionnaire which measures the level of student engagement in their studies and their participation in college activities. Each category corresponds to student behaviours or conditions implemented in the college to promote student engagement that have been confirmed by fundamental research.

Even though these practices represent distinct educational concepts, they are complementary and interdependent. For example, when a student works on campus, there are more interactions with teaching personnel. When a student is involved in a research project, the academic challenge is greater and the contact with the research team more enriching.

In the same way, participating in educational and extracurricular activities both inside and outside the classroom enriches learning, allows for knowledge to be integrated, and promotes personal development. The application of acquired knowledge in concrete activities such as community action, volunteering, work placements, internships, studying abroad, etc. reinforces learning and makes for better integration of knowledge.

Before presenting the effective educational practices observed in DEEP colleges, it is important to remember that these practices are found, in whole or in part, in some 700 establishments that were part of the initial study. There are nevertheless three factors that distinguish DEEP colleges from other establishments:

1. The **quality** of programs, services and activities implemented by the college and their demonstrated effectiveness;
2. The **combined effect** of programs, services and activities on student engagement and student success;
3. The **large number of students affected** by these programs, services and activities.

This large student participation in meaningful programs and educational activities is a determining element which distinguishes DEEP colleges from other institutions.

### **3. ACADEMIC CHALLENGE**

Intellectual challenges, high academic standards and high expectations with regard to the time devoted to studies are the trademark of DEEP colleges. These elements are essential to quality learning. The high expectations that encourage students to excel, are communicated early on the learning path, often even before admission. On the other hand, DEEP colleges implement a series of measures designed to support students and help them meet the high expectations and, ultimately, succeed.

The academic challenge corresponds to a series of activities that relate to studies and the work demanded of the students. These activities include: time devoted to course preparation, required reading, producing reports, participating in activities that require analysis, synthesis, the application of theories and judgement, performance expectations that encourage students to excel, and an educational environment that values academic work.

#### **3.1.1 HIGH STUDENT EXPECTATIONS**

In DEEP colleges, the high expectations with regard to engagement in studies and academic performance are the basis for an environment that promotes academic success and which, with the appropriate support, leads students to excel. However, these expectations take into account the characteristics of the students attending the institution. The objective is not to be the best, but rather for the students to reach their full potential. Reaching this objective is made easier by a socialization mechanism whereby students are made aware, even before admission, of the high academic expectations and the implementation of a support structure to help them meet these demands

#### **Examples**

In official publications and in counselling activities for new admissions, students are informed that studying at the University of Michigan is a demanding and intense, yet valorizing experience.

At George Mason University, in order to improve their chances for success, students who are at risk are encouraged to improve their preparation for science and mathematics by registering for remedial courses offered during the summer preceding the first session.

Many institutions have developed a mandatory reading program for new registrants. Miami University has a "Summer Reading Program", Wofford College has a "Novel Experience" program and Ursinus College has a "Common Intellectual Experience" that involves reading a complex novel which is first discussed during the counselling activity offered in the summer, and then in the fall session. This required reading of a complex work sends student a clear message with regard to academic expectations.

### **3.1.2 STUDENT SUPPORT**

While DEEP colleges have high expectations, they have also implemented a support structure that helps students surmount difficulties and succeed in their studies. This balance between the high expectations and support resources is very important.

#### **Examples**

Fayetteville University has implemented a complex network of resource persons (teachers, student affairs personnel, students, etc.) to allow for early screening of students experiencing scholastic or adaptation problems (Early Warning System) and to offer measures to help them overcome these difficulties.

### **3.1.3 READING AND WRITING ACTIVITIES**

In keeping with their high academic standards, reading and writing activities are omnipresent in DEEP colleges. The results of the NSSE questionnaire confirm that students who register for these activities read and write more than those attending comparable colleges.

All DEEP colleges place a great importance on writing activities but the approaches vary from one institution to the other.

#### **Examples**

George Mason University, with its "Writing Across the Curriculum" program, requires high-level written productions in its courses, and not only in language courses. Sewanee, Sweet Briar and Ursinus have similar practices.

Mastery of writing is a condition for obtaining a college diploma at Alverno College.

California University requires all new registrants to take a placement test. Those who fall short must follow remedial courses.

Students at the University of Maine and Sweet Briar can submit a preliminary version of their work to their teacher, which allows them to produce a higher-quality final version.

In keeping with these high expectations, all DEEP colleges have set up Writing Assistance Centers.

### **Examples**

Evergreen College has set up an assistance centre that offers training programs, writing workshops and other resources to help students master writing skills. These activities, offered during the day and in the evening, call upon many qualified students to act as tutors for their peers.

At the University of Kansas, every year more than 3,000 students take advantage of the services offered by the Writing Center.

The Writing Center at the University of Michigan offers services not only for those experiencing difficulties but for all those who want to produce better quality texts.

Le NSSE study also found that students enrolled in DEEP colleges read more than students registered elsewhere; this trend applied to reading for the course as well as reading for pleasure.

### **Examples**

Students at Wabash and Ursinus read one book per week as part of their course.

Students at Evergreen and Macalester read on average between 8 and 10 books for each of their courses.

It is also important to note that these colleges impose a comprehensive assessment for the program in which students demonstrate that they have integrated the learning. Successfully passing this test is part of the intellectual and academic challenge presented to the students.

## **3. ACTIVE AND COLLABORATIVE LEARNING**

It is acknowledged that students learn better when they are actively involved in their learning and when they are able to apply their knowledge to real situations. As for teamwork and group learning, they promote the acquisition of knowledge and skills that will be useful throughout one's lifetime.

Educational strategies based on active and collaborative learning are favoured in all DEEP colleges, but mainly in institutions that admit a larger number of

students considered at risk. This approach leads students to engage in their studies: ask questions in class, participate in group discussions and assignments, make presentations, work with other students and teachers on projects both inside and outside the classroom, act as peer tutors, discuss books with others, be part of a learning community, do volunteer work, complete practical training, evaluate the work of their peers, etc.

### **Examples**

At colleges like Alverno, George Mason and Kansas, students are encouraged to work in teams and collaborate with each other. The classes are set up to promote this educational strategy.

At the University of Michigan, due to the large number of first-year students, teachers have introduced a human dimension by dividing the group into work groups. A typical first-year science group could be divided into 70 groups of between 8 and 12 members each.

Peer tutoring is a preferred educational strategy in DEEP colleges. All colleges allocate considerable resources to this strategy and they provide training and certification programs for students wanting to become tutors.

### **Examples**

Tutors at the University of Maine must take 45 hours of training and successfully complete a training course before becoming a tutor in the institution.

At Wabash College, students who act as tutors for science and engineering students are selected by their teachers and, in addition to receiving formal training, they must maintain an above average grade (GPA of 3.0).

At Evergreen, Longwood, Wheaton and Wofford, tutors are recruited among the best students in their last year of studies.

Being evaluated by and evaluating their peers adds an interesting dimension to student learning.

### **Examples**

At Alverno College, students systematically evaluate their performance within the team, the performance of other team members, and the performance of the team itself. These evaluations are supervised by the teachers.

At Fayetteville University, students in the education program comment on and evaluate the course plans and educational strategies of their peers before their work placements in a school environment.

Students enrolled in DEEP colleges participate in large numbers in learning communities within their course framework or in residence.

### **Examples**

At the University of Michigan, students interested in community action or volunteer work can choose to become a member of one or more of the 11 specialized learning communities in this field.

All residences at Gonzaga University are structured as learning communities and welcome students who share the same interests: science and engineering, the arts, community action, etc.

At the University of Texas at El Paso, over 70 learning communities bring together students who are enrolled in the same courses (minimum of three) in a program of study.

When volunteer work and community action are associated with a program of study, they can enrich formal learning while improving the quality of life in the community. All these experiences are collected and discussed in class. This strategy is widely used in DEEP colleges.

### **Examples**

Students at Sewanee are involved in Make-A-Wish-Foundation activities and with fundraising for an orphanage in Russia. The students in the architecture program collaborate with community organizations on projects that will improve living conditions in underprivileged neighbourhoods.

Students in Fayetteville's College of Education act as tutors in schools in the city's underprivileged areas.

Science and engineering students at the University of Texas visit high schools in the region to promote scientific studies.

Students in sociology and education courses at the University of Michigan are required to work as volunteers in a school, a community centre, a hospital, a youth centre, etc.

## **3. TEACHER-STUDENT INTERACTIONS**

Students learn more when they have regular contact with teachers, inside and outside the classroom. The teachers become role models and mentors. This contact is essential in order to create an enriching and satisfying educational experience for students.

DEEP colleges structure their programs of study, their environment and their practices in order to facilitate as much as possible interactions between teachers

and students. In these colleges, teachers and other staff members are aware of their students' needs and make themselves readily accessible to them.

Teacher-student interactions take various forms, notably: discussions on counselling and career choice, discussions on a book, feedback on academic results, participation in a research project, participation in a work committee, discussions relating to a course and its demands, participation in a social, sporting or cultural activity, etc.

### **Examples**

From the moment of their admission, students at the University of Michigan are invited to take advantage of the ready availability of teachers and other staff members and to take the initiative in setting up meetings.

At Evergreen College, during counselling activities, students are told they are expected to get to know their teachers and vice-versa.

At Longwood, Gonzaga and Maine universities, teachers participate in a large number of student activities that are organized outside the classroom.

At Longwood University, students report they could obtain letters of reference from 10 to 15 faculty members, a clear indication of the high quality and frequency of teacher-student interactions.

When constructing its science building, Macalester College used an architectural design where the teachers' offices open onto an atrium, an area very popular among students. Situating rooms used by students near the faculty offices and education departments, greatly favours interactions.

Wofford and Ursinus colleges have set up small study halls near teachers' offices and research labs.

Some colleges encourage more informal meetings. Alverno College, for example, has set up areas in the cafeteria reserved for teachers and students who want to eat together.

At George Mason University, each program of study has an advisory committee, comprised uniquely of students. This committee conveys to the department and to teachers, various elements relative to the quality of their teaching, to their overall satisfaction and to the means for improving their educational experience.

Most DEEP colleges have developed mentoring and counselling programs involving teaching personnel. Some programs are specific and limited, for instance, to students at risk. In other colleges they are offered to a larger number of students.

### **Examples**

The University of Michigan's mentoring program combines 4 first-year students with a graduating student in the department. This program facilitates the transition from highschool to college, creates a support network and friends, and allows for the early screening and rapid assistance for students at risk.

At California State University, Monterey Bay campus, each first-year student is assigned a teacher who will act as a mentor.

At Sewanee, over 60 teachers act as mentors for students who come from minority groups.

At Fayetteville University, teachers work as counsellors for close to 30 student clubs and associations.

In DEEP colleges, the function of academic advisor is shared between professionals and teachers. Generally speaking, the professionals act as academic advisors for all first-year students. When the professional orientation is established, a teacher from the department takes over.

### **Examples**

At Longwood University, teachers assume the role of academic advisor for students for the duration of their studies.

At Fayetteville University, teachers who give the First Year Seminar act as academic advisors for each of their students. This is also true for Macalester, Wheaton and Sewanee colleges.

Finally, information and communication technologies (ITs) greatly increase teacher-student interactions. Using the Internet for research, the use of emails and interactive computer software such as WebCT offer numerous opportunities for interactions among the students themselves and between students and their teachers.

### **Examples**

Every student admitted to Ursinus College is assigned a portable computer. Since this measure was adopted, students have increased their communications with their teachers.

At Fayetteville University, 25% of students use the interactive Blackboard software to communicate with their teachers, exchange with their peers, work on additional exercises, submit assignments, etc.

At California University, students widely use email to communicate with their teachers and get feedback on their work. Teachers also use email to communicate with their students on various topics, notably reminders regarding work deadlines. It is estimated that students at CSUMB receive on average three emails a week from their teachers.

### **3. ENRICHING EDUCATIONAL EXPERIENCES**

Aware that enriching educational experiences, in the classroom and outside the class, reinforce and enrich the programs of study, DEEP colleges offer their students a whole range of activities that reinforce their learning. Exchanging with students from different cultural communities or with particular political or religious beliefs, using ITs to communicate with their peers or teachers, participating in internships, doing volunteer work in the community, studying abroad, registering in a work-study alternation program, and becoming active in extracurricular activities are some of the means implemented by colleges to enrich studies. DEEP colleges support these interactions and provide for the structures and resources required to make them happen.

#### **Examples**

At Fayetteville University, all first-year students must take part in four cultural events per school term.

In an orientation seminar, teachers at UTEP moderate debates on cultural diversity and sensitize students to the Hispanic culture.

The Johnson Center student hall at George Mason University is decorated with international flags representing the origin of its international students. Furthermore, George Mason organizes an annual seminar on cultural diversity to promote reflection and exchanges. Over 1,500 students register for this activity.

Every year, the University of Michigan's theatre troupe presents a satire on multiculturalism and the relationships between groups of different ethnic origins.

Students in education at the University of Maine at Farmington correspond in writing to students in elementary and highschools in underprivileged neighbourhoods of Chicago. This initiative fuels classroom discussions on poverty and on the role and impact of education in society.

Alverno College organizes a weekly Roundtable at lunchtime to discuss subjects relating to multiculturalism or international affairs.

DEEP colleges place a high value on studying abroad and strongly encourage their students to make this activity part of their academic journey. Miami, Wofford, Gonzaga and George Mason colleges are among institutions with the highest proportion of students studying abroad. The average duration of studies abroad usually varies between three weeks and one school term.

### **Examples**

At Sewanee College, the majority of students registered in a language program study abroad for one school term.

Ursinus, Wheaton and Wabash set aside funds to provide financial assistance to students who want to study abroad.

Many colleges such as Alverno, Kansas, and Wabash, also offer study and immersion training abroad for a period of three weeks to meet the needs of students who cannot be absent for an entire school term.

Using ITs to improve the quality of the educational environment, in particular interactions between students and their teachers, has already been discussed. Simply having access to the Internet, email, interactive computers, specialized software, technical support, etc. has a major impact on educational enrichment.

Various measures have been implemented to reinforce learning and provide concrete applications. Thus, many DEEP colleges incorporate a “practical training and experience” component in their programs of study of variable duration and form: internship, work-study alternation, volunteering, community activity, etc.

### **Examples**

Practical work placements are mandatory in all programs of study at the University of Maine. Often the first work placement takes place at the beginning of the academic journey, which makes it possible to confirm or invalidate a choice of professional orientation.

Alverno College requires that all students complete at least one work placement relating to their program during their studies in a public organization or within an enterprise.

Sewanee, FSU and George Mason colleges maintain a complete list of locations in the region that are available for work placements and strongly recommend that students take advantage of this enriching educational experience.

### **3. SUPPORTIVE STUDENT ENVIRONMENT**

Students are more successful and satisfied when the colleges they are attending are committed to supporting them and implement means to help them overcome any academic or adaptation difficulties. This commitment is based on the belief that the great majority of students are capable of persisting in their studies up to graduation if they are placed in adequate learning conditions and if they receive, at the opportune moment, the help and support they need to succeed. Furthermore, these colleges strongly encourage students to take advantage of the help and support services, as required.

The measures prioritized by the colleges revolve around the following actions:

- programs and services to ease the transition from highschool to college;
- a network of academic advisors;
- peer tutoring and peer assistance;
- early-warning systems for students facing academic or adaptation difficulties;
- specific support mechanisms for particular clientele;
- meaningful educational activities for students living in residence.

All DEEP colleges have developed programs to help their students make the transition from highschool to college. These programs allow, among other things, for students to be introduced to the college's values and expectations, to the requirements of college studies, to plot out a study path and to be made aware of the institution's resources and support measures for success.

### **Examples**

The UMF offers a counselling and integration seminar. This activity is offered in the summer prior to admission and is reserved for new registrants.

The University of Kansas developed a 30-hour credit course (Counselling Seminar) for first-session students to help them develop the required competencies and attitudes for success and become involved in college life. Most DEEP institutions offer similar courses.

At Gonzaga College, over 250 graduates return to the college in the fall to welcome new students and contribute to their integration into the college environment.

UTEP implemented an integrated Entering Student Program with the objective of providing students with the academic and social support they need to be successful in their studies and their integration into college life. This program brings together all the help and support services available to the students under one roof: educational and financial assistance, counselling, support centre for success, etc.

Setting up a network of academic advisors is a common practice in DEEP colleges and provides students with valuable guidance, notably when it comes to selecting courses and the general organization of the study session and learning path up to graduation. This essential function is performed by professionals, by teachers and sometimes by graduates.

### Examples

At Macalester College, teachers who give the counselling seminar act as academic advisors for their students for the first two years of study.

At Wheaton College, a team of 5 people is responsible for supporting each student: teacher, administration personnel, a librarian and 2 final-year students. The teacher acts as academic advisor, the final-year students as tutors supporting the students, the administration personnel as mentor and, finally, the librarian as guide for the students in their research work and in the use of ITs.

At Ursinus College and the University of Miami, personnel from student and academic affairs work together and serve as academic advisors.

In order to promote the retention and success of their students, all DEEP colleges have put in place systems for quickly screening students with learning or adaptation difficulties, particularly first-year students. These well structured systems allow for quick intervention and provide the appropriate support for students experiencing difficulties.

### Examples

At Ursinus College, screening students with academic or adaptation difficulties is mainly the teachers' responsibility. They inform the person in charge of the student assistance program who in turn ensures the appropriate follow-up.

At Wheaton College, a team of teachers and student affairs personnel get together every week to follow up on the academic performance of all new registrants and identify students experiencing difficulties. The team also agrees to a help and support strategy for each student.

Winston-Salem University devotes an important part of its resources to supporting first-year students and has set up an Academic Resource Center and a Center for Student Success. Favouring an integrated approach, these centres provide services such as pedagogical help, counselling, mentoring, tutoring, computer-assisted learning, workshops and remedial courses, student follow-ups, etc. The rapid detection of students experiencing difficulties and intervention at the opportune moment are prioritized values within the institution.

Aware that many new students are ill-prepared and have not acquired all the skills they need to succeed in their studies, DEEP colleges have implemented specific support programs for certain student groups that are more "at risk". Among these "at risk" students are: students from minority ethnic groups, students from another college (clientele B), students who are gainfully employed for more than 15 hours per week, first-generation students, etc. Various studies have shown that these students are more at risk and require specific help and support measures to increase their chances for successful studies.

### **Examples**

Sewanee University offers an intensive preparatory training session (Summer Bridge Program) for students of Hispanic, Asian and Afro-American descent who have the potential to pursue studies in science and mathematics.

The HAWK program at the University of Kansas offers specialized support services for students from minority ethnic groups who historically experience difficulties in completing their college studies. HAWK is essentially a student retention program that includes a system of teacher mentoring and peer tutoring.

Evergreen College has designed a counselling activity especially for native students. The college also organizes an counselling activity for new students from another college (clientele B) in order to introduce the college to them and the resources at their disposition

The University of Michigan offers a complete programming for foreign students, which includes a presentation on American habits and customs, practical advice on transportation, lodging, health services, financial management, nutrition, etc.

Finally, as previously discussed, DEEP colleges use their student residences for teaching and learning purposes. FSU, Longwood, Miami, Sweet Briar, Ursinus and Wheaton make it compulsory for all first-year students to live in residence. A rich program of activities and the creation of a learning community reinforce student engagement. Support structures are put in place inside these residences and greatly contribute to the creation of an educational environment that supports student success.

### ***Examples***

At Longwood University, students living in residence are grouped by program of study which makes for collaboration, teamwork and mutual aid within the group.

At Sewanee University, first-year students in residence are paired with students in their graduating year who act as tutors.

At the University of Michigan, some first-year courses are given at the residence.

At Sweet Briar College, students in residence have access to a multidisciplinary team of resource persons: academic advisor, residence manager, student affairs professionals, etc.

The educational practices described in this chapter represent only a fraction of the means implemented by DEEP colleges to promote student engagement and student success. We believe however that they are a good illustration of initiatives taken by colleges and provide an understanding of the foundations that justify them.

## CONCLUSION

The DEEP research project, conducted in 20 colleges having achieved higher than expected rates of student engagement and graduation, had the objective of answering the following question:

“What are effective colleges doing to elicit student engagement and promote student success in terms of persistence and graduation?”

It is difficult in a summary document to do justice to DEEP colleges and fully appreciate the quality and effectiveness of the programs, services and activities implemented by them to promote their students' success. The common characteristics of effective colleges and the educational practices documented in the research seem rather familiar and are not in themselves unique or spectacular. In fact, all colleges organize welcoming and integration activities, offer educational and counselling services, tutoring and mentoring, set up centres that support success, implement first-session pedagogy and employ strategies based on active and collaborative learning, etc.

In this regard, the research team clarified an important point in stating that:

“Simply offering various programs and services does not automatically foster student success. Programs and practices must also be tailored to student characteristics, meet their needs and, mostly, touch large numbers of students in a meaningful way.”<sup>12</sup>

We know there are major differences between Quebec CEGEPs and colleges studied in the DEEP project: mission, organizational structure, governance, administration and regulation framework, work relationships, institutional autonomy, financing, the characteristics of the student population, etc. We are also aware that the reality of colleges and their organizational dynamics will make the application of certain practices described in this document difficult, even impossible in some cases. We remain convinced however that Quebec CEGEPs, inspired by the results of the DEEP research project, can call on their usual creativity and adapt their institutional reality to some of the educational conditions and practices that will enrich the efforts already being made to support student success. A self-evaluation grid (Appendixes B and C) has been developed to guide colleges looking to begin a process of reflection and evaluate to what extent the educational conditions and practices described in the DEEP research are present within the institution. This diagnosis represents a first step that could very possibly lead to enriching the college's plan for success.

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<sup>12</sup> Kuh, G., Kinzie J., Schuh, J. Whitt, and Associates (2005), *Student Success in College: Creating Conditions That Matter*, San Francisco, Jossey- Bass, p.264



## APPENDIX A

### List of DEEP colleges and a few characteristics

Institution	Year Founded	Institutional Type	Student Population	Location	Annual Tuition Fees (US\$) for Students In-state
1. University of Maine	1863	Public, liberal arts university	2 000	Farmington, Maine	3 990
2. University of Michigan	1817	Public, research university	23 000	Ann Arbor, Michigan	7 340
3. University of Texas	1913	Public Hispanic-serving university	10 000	El Paso, Texas	2 208
4. Ursinus College	1869	Private liberal arts college	1 300	Collegeville, Pennsylvania	26 200
5. Wabash College	1832	Private men's liberal arts college	850	Crawfordville, Indiana	19 837
6. Wheaton College	1834	Private liberal arts college	1 500	Wheaton, Illinois	23 140
7. Winston-Salem University	1892	Public historically black university	2 300	Winston-Salem North Carolina	1 168
8. Wofford College	1854	Public liberal arts college	1 100	Spartanburg, South Carolina	18 515
9. Gonzaga University	1887	Private Jesuit University	3 500	Spokane, Washington	19 400
10. Longwood University	1839	Public university	3 400	Farmville	4 226

<b>Institution</b>	<b>Year Founded</b>	<b>Institutional Type</b>	<b>Student Population</b>	<b>Location</b>	<b>Annual Tuition Fees (US\$) for Students In-state</b>
				Virginia	
11. Macalester College	1874	Private liberal arts college	1 800	St. Paul, Minnesota	22 608
12. Miami University	1809	Public research university	15 000	Oxford, Ohio	7 666
13. Sewanee University of the South	1857	Private liberal arts college	1 300	Sewanee, Tennessee	22 370
14. Sweet Briar College	1901	Private women's college	700	Amherst, Virginia	18 010
15. University of Kansas	1864	Public university	17 500	Lawrence Kansas	2 333
16. Alverno College	1887	Private women's college	900	Milwaukee, Wisconsin	12 150
17. California State University at Monterey Bay	1994	Public Hispanic serving university	1800	Monterey Bay California	1 815
18. Evergreen State University	1967	Public liberal arts and sciences college	3 900	Olympia, Washington	3 097
19. Fayetteville State University	1867	Public historically black university	3 100	Fayetteville North Carolina	1 770
20. George Mason University	1957	Public research university	15 300	Fairfax, Virginia	3 792

## APPENDIX B

### Effective Educational Conditions and Practices

#### Self-evaluation Questionnaire

The self-evaluation questionnaire is designed to initiate a process to reflect upon and assess the degree to which effective educational practices and conditions, as described in the DEEP research project, are present in your college. This tool was developed within the framework of the Symposium organized by the *Carrefour de la réussite au collegial* entitled: "Eliciting and sustaining student engagement in their educational project: winning conditions and practices". It is preferable to have the questionnaire completed by several people to get a better overall vision of the institution.

The questionnaire is divided into two parts. The first part is devoted to conditions and characteristics common to DEEP colleges. The second part deals with the effective educational practices described in the project.

For each statement, indicate your level of agreement by checking the appropriate box.

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Strongly Disagree	Disagree	Agree	Strongly Agree
1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>

---

## Part A

### Conditions and characteristics common to effective colleges

The DEEP research project identified 6 conditions and characteristics that are common to effective colleges. These conditions are: a living mission and lived educational philosophy; institutions focussed on student learning; an environment adapted to educational enrichment; clear pathways to student success; an improvement-oriented culture; shared responsibility for educational quality and student success.

For each statement, check the appropriate box

<b>Educational Mission and Philosophy</b>	Strongly Disagree  1	Disagree  2	Agree  3	Strongly Agree  4
1. My college's mission is well defined and understood by the college community.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. The college's mission is widely shared by staff members.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. My college's mission takes into account the characteristics of the student population.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. The policies, programs, services and practices at my college are in keeping with the institution's mission.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Student success and student development are at the heart of institutional values.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. My college's educational philosophy is clearly defined and communicated to the college community.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Student Learning**

	Strongly Disagree	Disagree	Agree	Strongly Agree
	1	2	3	4
7. The educational strategies preferred by teachers in my college promote student engagement in their studies.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Students in my college receive regular and timely feedback, either written or oral, on the quality of their work and scholastic performance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. My college allocates resources in order to support teachers who want to improve their teaching practices.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. My college has set up centres to help students in their learning.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. My college encourages students to work in teams and to learn from each other.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. The teachers in my college devote a lot of time to the students.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. My college encourages interactions between teachers and students outside the classroom.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. The majority of students in my college participate with the teachers in meaningful educational activities outside the classroom.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. The teaching strategies at my college are adapted to the needs and characteristics of the students.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. My college encourages educational innovation and experimentation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. The teachers at my college know their students very well.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Members of the college staff, apart from the teachers, know the students very well.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Environment Adapted to Educational Enrichment**

Strongly Disagree      Disagree      Agree      Strongly Agree

1                                  2                                  3                                  4

19. The students at my college develop a strong feeling of belonging towards the institution.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. People, including students, who are involved in layout or renovation projects, are involved in the planning process of these works.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Clear Pathway to Success**

21. The students in my college are informed as soon they are admitted of the college's requirements with regard to studies and performance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. Students are strongly urged to become engaged in their studies and college activities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. The college's established academic requirements are high and encourage students to excel.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. The various pathways leading to success are clearly defined and presented to the students early in their academic journey.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25. These different pathways take into consideration the needs and characteristics of the students in my college.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26. My college provides the appropriate support for students experiencing educational and/or adaptation difficulties.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. In my college, particular attention is paid to the welcome, integration and performance of all first-session students.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28. A significant proportion of my college's help and support resources is reserved for newly registered students.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29. Students are well aware of the support and resources that are available to them.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30. Before the start of the first session, my college offers remedial training to students whose prior preparation is judged to be incomplete or lacking.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Clear Pathway to Success (cont'd)**

Strongly Disagree      Disagree      Agree      Strongly Agree  
 1                              2                              3                              4

31. A large number of students make use of the help and support resources offered by the college.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32. My college has implemented mechanisms for identifying students who are at risk.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33. My college has implemented a system for quickly screening students who are experiencing academic or adaptation difficulties.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34. The programs and services in place for first-session students are effective.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35. The data on student performance (course success rate, persistence, graduation, etc.) are compiled and used to improve educational practices.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36. The institution's priorities and budget choices are determined based on the institution's mission.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Ongoing Improvement**

37. My college has developed a culture of ongoing improvement at all organizational levels.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
38. In my college, data on student performance (success rate, persistence, graduation, satisfaction) guide organizational changes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Shared Responsibility for Quality Education

39. In my college, it is acknowledged that the quality of education and student success are shared responsibilities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40. In my college, student affairs support and reinforce the realization of the educational mission.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
41. Academic affairs and student affairs work together to design and implement activities that promote student engagement and academic success.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
42. The students at my college feel that their success is a priority for the institution.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
43. Students are advised as soon as they register that they are the main persons responsible for their educational success.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Part B

### Effective educational practices

The DEEP project made it possible to identify and document a certain number of educational practices that not only favour student engagement in their education and in college life but also contribute to student success. These practices are grouped into five categories: academic challenge, active and collaborative learning, teacher-student interactions, enriching educational experiences, supportive campus environment.

For each statement, check the appropriate box.

<b>Academic Challenge</b>	Strongly Disagree	Disagree	Agree	Strongly Agree
	1	2	3	4
1. My college sets high expectations for student performance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. My college expects students to devote a lot of time to studies and school work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Help and support measures are in place to help support students in facing the academic challenges put forth by the college.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. The culture at my college promotes learning and academic success.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. To meet its academic requirements, the students at my college must surpass themselves.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. The academic knowledge of newly registered students is assessed before they begin their first session.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Students devote a lot of time to reading activities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Students devote a lot of time to writing activities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Students spend a lot of time on course preparation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Academic Challenge (cont'd)**

	Strongly Disagree	Disagree	Agree	Strongly Agree
	1	2	3	4
10. All of the programs of study offered by my college are academically challenging for the students.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Overall, the school work and exams are demanding.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. The courses promote the development of intellectual activities such as, analyzing, summarizing, making a judgement, etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Active and Collaborative Learning**

13. Most teachers use teaching strategies based on the principles of active and collaborative learning.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. ITs are widely used by teachers to promote active learning.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. The majority of programs of study offered by my college include a compulsory work placement (or equivalent) in an enterprise or organization.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. The extracurricular activities complete and reinforce the formal learning in class.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. My college encourages students to work in groups and to support each other.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. In my college, ITs promote team learning and collaboration among students.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Peer tutoring is widely used in my college to promote student learning.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Students who act as tutors receive training offered by the college.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. My college makes the most of external resources to enrich learning activities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. My college has implemented and supports a number of learning communities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Active and Collaborative Learning (cont'd)**

Strongly Disagree      Disagree      Agree      Strongly Agree  
 1                              2                              3                              4

23. Many students registered in the first session are members of a learning community.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	--------------------------	--------------------------	--------------------------	--------------------------

**Teacher-Student Interactions**

24. The teachers in my college regularly interact with students outside the classroom.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25. Teachers participate in a large number of student activities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26. Teachers and students sit together on various college committees.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. Students work with teachers on various projects.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28. Students regularly use email to communicate with their teacher.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29. The students in my college feel their teachers are available and accessible.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Enriching Educational Experiences**

30. The physical arrangements are designed to promote interactions between teachers and students.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31. My college organizes activities that sensitize students to cultural diversity.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32. A large number of students are involved in community action projects and volunteering as part of a course framework.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33. Students at my college are encouraged to take part in work placements (varying in duration) abroad.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Enriching Educational Experiences (cont'd)**

	Strongly Disagree	Disagree	Agree	Strongly Agree
	1	2	3	4
34. ITs are widely used to communicate and reinforce the links between students and to make teamwork easier.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35. My college strongly encourages students to become involved in extracurricular activities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36. The majority of students in my college participate in extracurricular activities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
37. The residences in my college are organized as learning communities and reinforce the educational mission.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Supportive Campus Environment**

38. My college has implemented a complete program to ease the highschool-college transition.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
39. Participation in this transition program is compulsory for newly registered students.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40. My college has implemented mechanism for identifying students who are "at risk" before their arrival.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
41. The majority of students at risk benefit from specific help and support measures.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
42. My college pays particular attention to the welcome, integration and performance of newly registered students.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
43. My college has implemented a system that allows for rapid screening of students experiencing academic and/or adaptation difficulties and refers them to the appropriate services.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
44. Students experiencing difficulties receive the help and support needed to favour their success.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Supportive Campus Environment (cont'd)

45. The help and support measures in place for students experiencing difficulties are offered at the opportune time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
46. The help and support measures offered by my college are effective.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
47. The students registered in my college feel that they are well supported by the institution.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
48. Overall, the students registered in my college are satisfied with their college experience.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Complementary questions

1. To what extent are the effective educational conditions and practices observed in DEEP colleges present in your college?
  
  
  
  
  
  
  
  
  
  
2. What could your college do differently to improve student learning and persistence up to the obtaining of a college diploma?



## APPENDIX C

### Questionnaire Processing and Analysis

#### 1. Item distribution

##### A) Common conditions and characteristics

Educational mission and philosophy	Items 1 to 6
Student learning	Items 7 to 18
Environment adapted to educational enrichment	Items 19 and 20
Clear pathway to student success	Items 21 to 36
Ongoing improvement	Items 37 to 38
Shared responsibility for educational quality	Items 39 to 43

##### B) Effective educational practices

Academic challenge	Items 1 to 12
Active and collaborative learning	Items 13 to 23
Teacher-student interactions	Items 24 to 29
Enriching educational experiences	Items 30 to 37
Supportive campus environment	Items 38 to 48

#### 2. Statistical processing (when there are several respondents in one institution)

- A) For each of the items, compile the average, the standard deviation, the distribution of answers in number of occurrences and percentage.
- B) For all items in the same category, (see Section 1), calculate the average and the standard deviation for the group of items.
- C) Classify each item in the same category in decreasing order of average.
- D) Identify the items that received the best results as well as those that received the weakest results.
- E) Discuss the results and any possible follow-ups.

