THE RELATIONSHIP BETWEEN STUDENT-TEACHER ATTRIBUTIONS AND STUDENT ABANDON AND FAILURE BEHAVIORS.

Gilles L. Talbot
Champlain Regional College
Saint Lawrence Campus
Ste-Foy, Québec G1V 4K2

Programme d'aide à la recherche sur la pédagogie et l'apprentissage.
Direction générale de l'enseignement collégial
Ministère de l'Éducation du Québec

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ABSTRACT

Teachers and students have expectations about giving and receiving feedback in the learning process. The perceptual, cognitive and affective information received by students and teachers must be processed and categorized in order to maintain some sort of organization.

The process by which one makes some sense about behavior, 'attribution', differs as a function of whether we are adopting the student's or the teacher's viewpoint. Of the many variables discussed, the teacher's strategy and methodology of presenting the feedback to the student determines if the feedback will be formative. From the student's viewpoint the teacher's effectiveness in providing this feedback is influenced by his perception about the teacher's interpersonal relation and communication skills.

Theory and experimental evidence dominate this report. Principles and generalizations from the theory of cognitive behaviorism are related to motivation, self-perception, and dissonance research. Saint Lawrence efforts and results to curtail abandons and failures appear almost as a non sequitur to the lengthy theoretical developments in this report. We have relied heavily on theory and empirical research to show that attributions have motivational properties that link expectations about student-teacher relations to academic persistence and achievement. The aim is to convince teachers to take the time to consider the impact of student-teacher attributions. We feel that student and teacher misattributions induce stress which leads teachers to 'burn out' and students to fail or abandon.

This report examines the relationship between two types of attributions: Those that explain the present by examining past behaviors, and those that examine current behaviors to predict and control future behaviors. It is argued that there is a fundamental difference between students who are high versus low in academic need achievement. The high achievement student has a preference for a direct achievement style in which he continuously monitors the relation of past to present behavior to adjust current behavior to better predict his future behavior. The direct achievement style student is thus very receptive to formative feedback. The low achievement student appears to favor the interpersonal relations aspect of communication with his teacher, and to the detriment of formative feedback. Student attribution and perception of the teacher primarily as an agent for formative feedback or as a social facilitator makes a critical difference on student achievement style.

The report proposes that the teacher could benefit from knowing that low achieving students need relational achievement styles to reinforce their attempts to cognitively restructure expectations about ability and effort towards academic performance. The formative feedback from the teacher could help the relational

type student develop a better and more accurate sense of causality, responsibility, and productivity. This, it is argued, has serious implications for academic persistence and achievement.

The report concludes with St-Lawrence's attempts, over a four year period, to rethink its way of dealing with low achieving students. While neither offering remedial courses nor 'watering' down course content, teachers were able to work, independently and for a common good, to increase persistence and achievement of students who otherwise would have abandoned.

Chapter 1

ATTRIBUTIONS IN THE ACADEMIC SETTING

Introduction

Low achieving students have difficulties performing and learning. Such students manifest little or no permanent changes in their cognitive development as a result of matriculating in Cegep. According to recent discussions on motivation within the Cegep network, there is growing concern in teachers over the abundance of `declarative knowledge' and the absence of `procedural knowledge' on motivation (AQPC, 1983). Low achieving students are being asked to assimilate course content [i.e.`declarative knowledge'] without adequate skills for attending, organizing or processing the information presented to them [i.e.`procedural knowledge'] . There appears to be a "hidden curriculum" that stiffles some students' development. Low achieving student needs are not primarily for cognitive structure, understanding or order etc. [`direct achieving styles'] but rather for social and warm interpersonal relationships with their teachers [`relational achieving styles'].

Whether learning is the acquisition of facts, figures and relationships or the acquisition of conceptual strategies for processing these facts, figures and relationships the massive investments of human and physical resources would suggest that we think that learning is possible. We expect learning to occur when the teacher, knowledge and pedagogy are made to bear on the student. The pedagogical act occurs when concepts change minds as teachers communicate ideas to students. The teacher focuses on the means of transferring the in-depth knowledge and its organization to a novice who lacks knowledge about content, organization and procedure. Thus `learning' requires skills in processing and organizing incoming information. In this manner the student moves beyond simple acquisition and rote memorizing into the realm of `knowledge'.

In the pedagogical process the student attaches emotional meanings to the concepts he is asked to learn. However, we tend to forget that the student also attaches meanings to the process

Perceptual Inputs

How we categorize people not only reveals our implicit theory of personality but also affects the way we communicate with them. That is, how and what we say depends on where we are and with whom we are trying to communicate. What teachers think about students influences how we teach them and what students think about themselves affects how they learn. How one explains behavior to oneself depends on whether one is referring to oneself ['actor'] or to another ['observer'], level of task difficulty, and the outcome of the task ['success' versus 'failure'].

We prefer, as observers, to attribute causes of another's behavior to characteristics of that individual ['dispositional'] and to attribute them to social and physical demands ['situational'] when explaining our behavior in the same situation. This functional categorization process is necessary to deal with the millions of bits of information that are being sent to the brain for processing. We are forced to intentionally or unintentionally impose order on this information on the basis of perceptions or expectations.

Our needs for information, relevance, and the perception of the stimulus - response event determine the degree of intentional selective perception. We know we can't attend to everything and we make choices. At such time we are operating at a conceptual level of information processing. Operating at a perceptual level means we don't stop to ask for information, or to distinguish for relevance or to attempt to understand the relationship of the proximity of a response to a stimulus. We sort, code and file information. The source, the criteria for selection and retention, and the organization of ones' knowledge are not known. People who operate at a perceptual level of categorization memorize and rarely perceive the effects that the presence or absence of expectations may have on their perception. The person is deprived of making comparisons between what she expected and what she observed.

When teachers hear the familiar: "The teacher wants me to do this assignment," "The course was too difficult so I failed!," "My parents want me to go to school." "I need this degree to get a job," etc. we recognize the lack of perception of responsibility, causality and productivity within the student. This thinking may be based on facts e.g. not fallacious. It nevertheless is non-productive thinking. Making students aware of such non-productive thinking requires that a comparison be made between their perception of the situation and their

itself. The process imposes on the student an awareness of herself, her abilities, and her coping strategy. When the student fails to learn we 'reasonably expect' some fault with the teacher, the student, the process or some combination of these.

Attribution theory seems most appropriate in explaining which of these is held responsible for the outcome of the learning process because we are concerned with the processes involved between teachers and students rather than merely with accentuating the influence of either the student or the teacher, as in popular 'teacher effectiveness' or 'study skills' training strategies. The central attribution issue here relates to causality in motivation, productivity in learning, locus of responsibility, and the power of expectations.

A cognitive and behavioral framework is used because we wish to work within the limits of informed consent to avoid manipulating the students. Also, effective change strategies must include the participation of the learner in identifying, developing and implementing behavioral changes. This information ought to help us understand the process of how low achieving students won't or can't learn.

Attributions in the Academic Setting

How do students and teachers form impressions of each other? The answer is based on the attributions they make about each other's behaviors. Attributions reflect motives, qualities and faults and the demands of the situation. The attribution process reflects our concern with making sense out of someone's behavior in order to understand others and ourselves and ultimately to affect changes in our social environment.

Learning occurs in a social environment and is influenced by the perception of level of task difficulty; the degree of belief that ones' actions and efforts can and will influence outcomes; and the process of attaching feeling to the information that we must categorize. Thus the process of attribution relies on perceptual, cognitive and affective inputs.

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expectations. Their perceptual processes focus on extrinsic and associated attributes rather than on intrinsic and defining attributes. That is, student expressions reveal that they perceive the external aspects associated with learning stimuli - the teacher with assignments, course difficulty with failure, parents with education, and diploma with job - rather than on intrinsic and defining attributes - learning from assignments, ability and effort for determining academic performance, and being educated to hold down a job. What this means exactly and how it comes about is explained in the following section when we consider how the cognitive and affective inputs operate on perceptual processes.

Teachers think their attributions are as objective whether they focus on a person or a task. This is not the case.

If a student doing average quality work were to consult with the teacher and then perform better on the next quiz the teacher would perceive that her efforts have contributed to this student's increased academic performance. That is, the teacher makes a dispositional attribution about herself to explain the change in student behavior. If the student were however to do worse, the teacher would probably point to a lack of ability /or effort in the student.

Even the rare teacher who assumes the credit for student success and accepts the responsibility for her failure is still using attributions. The teacher is blind to the fact that, based on statistical probability, some students will do better or worse without teacher intervention. We cannot be objective when we are involved. It is in our nature to protect ourselves against too much anxiety, guilt, shame etc. by automatically and unconsciously readjusting our level of expectation to concur with attributions that we make about our own observed behavior. However we do not have such processes for adjusting the attributions we make about the observed behaviors of others.

The process by which we do is called selective perception and it means that we must choose which information to process from the incoming information that our senses are transmitting to us. Apparently being objective means that we limit ourselves to cognitive interpretations and being subjective means we add an affective dimension to these interpretations. When we are involved the affective processes are automatically called into play. We have to learn to be more objective about ourselves. We now turn our attention to applying this to teachers and students.

The teacher is faced with the same problem as the student - she is forced to categorize incoming information but in this case about people - and specifically students. The teacher needs to control his social environment and the student must acquire the intellectual concepts teachers are trying to get across to them.

And just like the student who deals in the predictability of academic performance based on categorization of intellectual concepts, the teacher deals in the predictability of academic performance based on categorizations of students.

Better cognitive skills, such as study habits and methods of work, and extrinsic attributes, such as being on time, being attentive etc. can explain, with a good degree of predictability, the acquisition of intellectual concepts. However, the attribution process used by teachers to explain student performances discounts the role of multiple causes and assumes the existence of a major necessary cause - ability and effort. This is clearly an affective and intrinsic categorization which leads to stereotyped behaviors. This means that as incoming information is processed it is weighed against our expectations.

We would expect, from a cognitive point of view, that the incoming information would often serve to modify our expectations. Unfortunately incoming information is matched against the expectation. Teachers have stereotypes for performance, study skills, motivation, etc. They extract some information about the student, match her to a social category and then watch and listen for behaviors that confirm the categorization!

Teachers and students communicate their attributions about motives, qualities and faults and interpret quite differently the demands of the situation. Students are acutely aware of this problem and marvel in the apparent lack of awareness teachers have for this phenomenon.

Apparently we have difficulty in understanding a similar problem that we as teachers experience when third parties hold us accountable for student performances. How can we be held responsible for student productivity when it relies on their sense of responsibility and causality? Teachers don't appreciate being told they should re-examine their teaching ability and the effort they put into their teaching since they believe that the cogntive and extrinsic factors [study skills, methods of work, etc.] of students lead to poor academic performance. So, when third parties, such as parents, use the discounting attribution principle on teachers [holding teachers accountable and responsbile for students' behavior because it makes the most and easiest sense to parents], the results are predictably as negative as when teachers use this same principle, for similar reasons, on students [holding previous teachers responsible and accountable for the students' current faulty study skills because it is also convenient for teachers].

It is a small intuitive leap to see then that harboring such perceptions influences the interpersonal relations and communications between students and teachers. We now turn our

attention to explaining how the cognitive and affective inputs interplay to produce our 'blindness' to such perceptions.

Cognitive & Affective Inputs

The underlying problem of cognitive and affective inputs is one of 'salience'. That is, the information available at the time of the attribution influences the coding, storing and recall of the attribution. Furthermore, the distortions that operate in memory makes it possible for us to recall information and to forget that it was derived from associated or defining characteristics. That is, we remember the message we want to remember and forget the source.

We make affective and cognitive categorizations based on associated and defining attributes of characteristics and then we promptly and conveniently forget that we did so. Affective categorization refers to the fact that we have learned to attach meaning to an associate attribution of a person, situation or event. The cognitive categorization process means that we learn to attach meaning to a person, situation or event on the basis of defining attributes. For example, tomato usually has 'redness' as a defining attribute. Tomatoes are usually red. 'Goes well with a salad' would be an associate attribution. We usually eat tomatoes with green salads and learn to associate one with the other. We may be tempted to say it is a defining attribute but it can't be. There are quite different associations that other persons may also learn. For example, 'Goes well with breakfast' is a difficult association for most of us to make because we have rarely associated eating tomatoes with having breakfast. Yet tens of thousands of persons would disagree. This thought may evoke the feeling: 'That's awful! How can someone even think of eating a tomato for breakfast?' This is an example of an affective categorization derived from the associated attribute.

Associated intrinsic attributes have very little consequence in the case of food but htey can potentially be disastrous in interpersonal communication. The emotional label allows us not only to explain the behavior but also to justify it. 'She's talented but so lazy!' is an affective categorization derived from some sort of associated and supposedly intrinsic attribute of the student. It makes it sound like 'laziness' is a quality of students just like attending school is a defining quality of 'student'. We will have much more to say about this in the following section: Attribution versus attribution processes.

The interpersonal relations and communications between students and teachers then are probably 'even' on this score - they both, and all too often, resort to associated attributes. Students use

associated attributes of learning, teachers use associated attributes of students; students respond to the associated attributes of their teacher and so on. The result is that both get turned off by each other. The student doesn't particularly like being reminded that she operates on a given perceptual level and teachers don't like to be put on the defensive. We will discuss this sequence of events when we examine the relationship of conditioning to expectations in Chapter 3: Acquisition and Maintenance of Learning Expectations.

Attribution versus Attributional Processes

Attributions are explanations based on perceived causes. This implies that attributions operate after the fact to mediate between antecedent characteristics and consequences of events. Accentuating the relationship between antecedent characteristics, such as information available, motivation to produce, and ones' belief in causality and the perceived causes or attributions is referred to as an attribution process. Attributional processes stress the relationship between perceived causes or attributions and the consequences such as learning, expectations for academic achievement, and assuming responsibility. Essentially the difference between attribution process and attributional process is a temporal one. Attribution process stresses the link of present behaviors to past characteristics and antecedents while attributional processes stress the consequences of current behaviors.

We have just noted that attributions operate after the fact and yet we clearly mention that attributional process is future oriented. This contradiction really isn't one if we replace the phrase 'attributional process' with a more familiar word: 'Expectations'. Attributional processes and expectations are two similar variables. Attributions refer to explanations about behavior. This clearly implies that the behavior has occurred. Expectations have a future sense - the word 'predictability' as was noted earlier reflects this aspect - and yet we are ill at ease to refer to them as explanations for future behavior. Nonetheless this is precisely what they are. When someone says that someone else did something 'wrong' we are actually saying to them that we registred, recognized and evaluated the difference between what we observed and what we expected should have occurred! The topic of expectations and their relationship to motivation receives all the attention it deserves in Chapters 4 and 6.

Misattributions and Self-Handicapping Attributions

The fundamental question is: Why do we engage in attributions if they are potentially self-handicapping? The answer requires that we understand how each of attributions, stress and learned helplessness influences self-presentation.

The 'discounting' principle of attribution (Kelley, 1972) purports that we stop looking for an explanation or examining possible explanations about behavior when we have arrived at 'the' one that makes the 'most sense' to us. The term 'predictability', used previously, connotes the problem nicely and neatly.

There is a great deal of subjective evaluation that enters into each person's operational definitions for 'success' and 'failure'. The major reason for the lack of student achievement thus varies according to whom you ask. This state of affairs has little to do with any actual causes and everything to do with expectations. How such expectations are acquired and maintained is fully explained in Chapter 3. Apart from the problem of expectations though we realize in ourselves and others that we are making attributions even if we don't understand them. How this is possible has everything to do with available feedback and how we use it.

Bruner and Potter (1964) demonstrated that we actively extract information from our environment. We continually compare the initial impression, or 'hypothesis' as they call it, of what we think the stimulus is to the actual incoming information about that stimulus. That is, we compare the actual behavior with the expected behavior. The problem arises though when the stimulus figure is in 'full focus'. That is, when the maximum fit should occur between what the stimulus is and what one expected. In their study they report that those who initially had been given a 'very', 'medium', and 'slightly' ambiguous stimulus figure reported, when the figure was in focus, 25%, 51%, and 73% recognition of that stimulus, respectively. The subjects couldn't perceive the stimulus figure for what it was. These figures were of common objects in unusual settings. For example a silver spoon placed on a rug, a fire hydrant, etc. When the process was reversed, that is going from in-focus to out-of-focus, no such effect occurred. The hypothesis formed about what the stimulus figure was acted as some sort of 'definition' against which incoming information was continually compared. Selective attention eliminated important information and only processed that which seemed to support the initial guess. The impact of this experiment is the fact that subjects

had difficulty in visualizing an objective and commonplace stimulus figure even when it was in correct focus.

The perception of objective stimuli, with referent qualities, remains tainted by initial subjective evaluations even when the stimulus figure attains its full and clear or objective status. Could we not expect that our perceptions of a subjective and ambiguous stimuli, such as abstract concepts about persons, could remain even more distorted?

Given that the most evident and accessible characteristic of an individual is physical appearance, does our perception of that physical appearance taint our perceptions about the person? The answer is most definitely yes! We aren't even aware that we tend, as teachers, to spend more time with and provide more feedback to 'attractive' students. If we can't even reflect upon this objective reality what can be said of the hope for us to reflect on other, more subjective, student-teacher interactions?

Additionally we are aware that our attributions often make a compelling statement about ourselves. After all, if we can only see evil in others, it won't be long for others to start attributing evilness as a dispositional trait in us! So we are careful in revealing our attributions to protect ourselves against this 'rebound effect'.

Teacher misattribution, stress and learned helplessness

Teachers apparently behave in a manner to protect self-presentation; but it is not currently known if it is intentional or not. Tetlock (1980) studied the reports made by teachers for student failure outcomes. Teachers reported feeling that their attributions served others as means of evaluating them. The pressure was on teachers to accept the blame for student failure and to give the student credit when she passed. This puts much pressure on teachers. Of course we recognize this as stress and we resent it. The teacher may escape the stress by developing coping strategies which center on communication and feedback with the administrators, parents, students and other teachers. Then again the teacher may just realize the futility of it all and give up without trying. In either case, at some point, if the teacher doesn't make some conscious effort to maintain or develop a coping strategy, the result is burnout - they stop caring! At this point they have arrived at the state of 'learned helplessness'. Teachers resign themselves to the belief that their actions can no longer influence academic outcomes. 'Good students,' they can be heard to reflect, 'will do well with any method and teacher. Poor students will do poorly no matter what is or is not done!'

What about students? How does misattribution lead to self-handicapping behaviors in them? How do these in turn produce stress and learned helplessness?

Student misattribution, stress and learned helplessness

When the student fails to experience consensus [1], his belief in causality is shaken. Assuming the student has made an effort and receives feedback to the contrary, she is faced with admitting to herself that his ability/effort are inadequate or inferior. If this situation is repeated often enough the student may actually come to expect that the situation is out of his control. This is especially true if the student receives 'good' grades when she knows she hasn't made the effort or receives low grades when she does make the effort. The student's perception between the degree of effort and the 'good grades' influences the attribution process. The ensuing expectation about future 'good grades', as determined by effort, produces a sense of helplessness which triggers the attributional process. The perceived degree of control arises when one looks back upon past behaviors to explain observed consequences. Learned helplessness occurs when expectations about future outcomes are not seen as contingent on controllable consequences.

The relationship between expectations for behavior and observed behaviors changes over time. The 'dispositional shift' concept in attribution processes (Moore et al., 1979) proposes that while we may initially engage in situational attributions to protect the 'self' we do come to perceive, over a brief period of time, the causes more objectively to the point of admitting, at least to ourselves, a more prominent dispositional attribution. The initial reaction is one of self-defense which gradually shifts to a social defense. The student becomes aware of the error of her performances and should be willing to have a more honest interpersonal relation and communication about this performance after the initial emotional impact has had time to wear off.

There arises a serious question here about the motivational relevance of self-esteem, self-presentation and social control in relation to academic achievement. We will explain in Chapter 6 the differences between social and academic expectations that may interact in the student-teacher relationship. Having reserved this issue for future development and explanation it remains that we must explain what happens when students are not able to

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1. The concordance between what the student expects and actually observes in his behavior.

establish this interpersonal relation and communication contact with their teacher.

First, students have learned not to approach the teacher about this topic. Students are aware that teachers teach for comprehension and yet don't teach comprehension. Of course students do turn to other sources for gathering the information they so desperately need about what went wrong in their academic performance. The evidence is that students rely heavily on subjective responses even at the expense of ignoring more abundant and objective information about their performances. It isn't unusual for a student seeking 'advice' to have fellow students say: "Well, there's your problem. With professor so-and-so you have to write a lot about sex or non-conformity etc." In brief, the student seeking feedback is led to expect that certain topics and content can camouflage cognitive inadequacies by stimulating the emotional interests of the teacher.

Borgida and Nisbett (1977) confirmed that objective, abundant, and readily available information about courses and teachers was put aside in favor of retaining subjective feedback obtained from face-to-face encounters with a few students. The students fall prey to a second attribution error: 'false consensus' - the information is not really representative of a more general consensus. This means that they tend to think that other students think as they do and would arrive at the same conclusions that they do. This might be so as in the cases before a court of law where the affective ' inputs are intentionally and clearly sorted out from the cognitive ones [i.e. "the facts and only the facts' as the expression goes in the courts]. However we do use, as we have seen, an affective input to taint the processing. The affective aspect can't be the same for all of us. It is an error to think that others will feel similarly as we do about the information to be processed. So, a teacher that lets the student's appearance taint his view of the student can't understand why another teacher sees beyond this and sees the student for her ability. But why would students want to ignore a more general and objective consensus in favor of a limited subjective one? For two reasons - to confirm their inclinations and to have someone else on whom to project the blame when things go wrong.

Ross, Greene and House (1977) asked students to walk around a college campus wearing the familiar "'Eat at Joe's' sandwich-board", as part of a supposed study on communication. Students were then asked to report privately on their decision to volunteer or not. Each person in either of the volunteer or no volunteer group was asked, again privately, to estimate how many of their peers they thought had agreed or disagreed to participate. Each group thought that most [2/3] of their peers had decided as she had.

Students enrolled, or thinking about enrolling, are inclined to think former students have similar inclinations and preoccupations about the teacher and the course. At this point students who are thinking of enrolling make a third attribution error. They fail to build into their strategy a formative feedback system that will reveal if the 'information' received from another, former student, is based on associated and affective attributes [i.e. 'opinions'] or defining and perceptual attributes [i.e.'beliefs'] of the teacher and the course. That is, students neglect the motivational relevance of the student providing the feedback and actively extract from former students their experience of consensus with this teacher and the course. Such student statements as: 'Oh! You have professor so-and-so. Well all you need to do to get by with her is ...,' or 'Watch out to not do this or that if you want to get by in that course,' are abundant and easy to pick up in student conversations.

Given that students are inclined to inaccurately assume that former students are the 'best' source of 'objective' information about teachers and courses it remains that these former students or their information can be used for maintaining self-presentation when things go wrong.

Newman (1981) has precisely argued for the existence of a category of attributions, other than the dispositional or situational, which stresses that in ongoing interpersonal relations and communications one advantage is to be able to blame the other for certain events. So, student statements like: 'The party and the people were just too important for me to miss it!' Of course, that very same party, with the very same people, probably wouldn't have such a great rating, if one took into account how this third source of attribution conveniently reduces cognitive dissonance between the academic performance that was expected of the student and what she actually did. Rarely will one hear students bragging that they stayed alone or didn't do anything worthwhile. It's usually that 'someone' - a sick friend, an unexpected guest,etc. - 'forced them' into making this decision.

When too many people could be aware of this underlying strategy, the parents and friends are led to believe that some 'illness', or other convenient situational event, has befallen the student. The parents and friends can't understand that their son or daughter, or their friend, failed the course or failed out of cegep. These sympathizers are working on the assumption that the student was either doing well, or that she could have done well at the last minute. Students engage in self-defeating behaviors precisely to draw attention to external pressures that could be used to explain their imminent failure or abandon in Cegep. What precisely leads us to suspect this strategy is that students who have serious problems rarely talk about them to teachers or inform the administration. How many teachers find

out - oftentimes only too late - that one of the reasons, very real, for the student's poor performance was that she was living through her parents' divorce? - death of a parent? - recuperating from debilitating medical interventions?

I've had three students whose parents were dying, one who was scheduled to undergo open-heart surgery the last week of the semester [she didn't make it!], and countless others who lived through divorce, etc.. None ever came by to plead. No messages from home. No excuses - never even once - nothing! However I can remember at one mid-term a failing student who came by to plead that her upcoming engagement to be married had been cancelled. I asked how she was doing in her other courses. The reply was that she was passing them. I asked if the other teachers had been contacted. She said no and showed no plans to do so. I asked her why I had been singled out for this news. We quickly examined the manipulative nature of her 'problem' and she decided that she would abandon.

Yet, I've had my share of pleas for showing leniency, to grade 'effort' and 'intentions' instead of ability and achievement, etc. None of the students, or their parents, in this last group ever revealed just once what they had done and what they planned to do to 'catch up' or remedy their situation. All the weight for change is on the teacher's shoulders.

When the requirements for performance are too tough students and parents complain that the teacher ought to be doing something, such as reducing the work load, to help the student cope! This is the classic picture that led Martin Seligman to formulate his now famous concept of 'learned helplessness'. People change their attributions not based on any new cognitive inputs but rather by changing their way of feeling about the cognitive input. It's so much easier and quicker - besides it leaves all the responsibility for causality and productivity on someone else. If the courses and teachers aren't 'entertaining' enough, or the work assignments too demanding, the student argues that she is disappointed, discouraged etc. instead of at least trying to make new efforts. Chapter 5 presents the discussion, with examples, on how to go about changing this inappropriate behavior.

Student energy is invested in self-presentation. Students care very much that others attribute, or would it be more appropriate to say 'misattribute'? , their performances or lack of performance on situational and not dispositional characteristics. The student behaves in a way to control others' attribution and attributional processes about her. Here are some less personal and probably very familiar examples of this process.

The student may stay up all night cramming or go out conspicuously 'partying'. In this way the failure can be

attributed to lack of ability or to having engaged in inappropriate behaviors or both. So, the student who risks having to admit to herself that his lack of control over his supposed abilities risks damaging her self-esteem and self-presentation engages in behaviors that she can control. Conveniently enough this strategy minimizes the student's stress about self-esteem and negates self-presentation attributions that others could make about her. For example, a student may not be attending classes regularly, completing quizzes and assignments, and faces a failure grade. Instead of investing his efforts to develop a coping strategy to deal with this problem behavior, she will phone in towards the end of the term to announce that she must 'miss out' on school for relatively long time periods.

Of course the student and the teacher both know that the student will fail this course. The student puts ont his show in order to save face. It's the student's form of 'burnout'.

She will probably try to show that she has stopped caring. It is this affective process, so they would like for us to believe, that is the basis for their choice not to continue working towards academic success. The teacher and the student know that it wasn't a choice. And if the student can put on a good enough show he or she may actually get the teacher to question her own beliefs about the student's performance. As we will show later, at this point the student's relational skills are critical in manipulating the interpersonal relation and communication with the teacher.

Finally, we may state, with proof to follow in the following chapters, that Saint-Lawrence teachers have become conscious of this student strategy, have learned to encourage students to regain control over their perceptions and expectations for productivity, causality and responsibility.

Summary and Conclusions

Whatever learning may be it is agreed that teachers and students, in processing and organizing information, attach emotional meanings not only to what but also to how they teach or learn. When learning fails to occur teachers expect fault with cognitive aspects, such as notetaking, class preparation etc. Teachers underestimate the importance that some affective aspects, such as in the student-teacher relationship, may have in understanding the causality and responsibility associated with educational productivity. The process of assigning meaning and making sense out of behavior is referred to as attributions.

Perceptual, cognitive and affective inputs affect the attributions made in the academic setting. The process of selective perception refers to the fact that we see and hear what we want and need to see and hear. This means, in the academic milieu, that one doesn't see and hear ones' attributions about success, failure or abandons quite the same way as another does.

The differences between attribution and attributional processes, it is argued, explain why we engage in misattributions and how they produce self-handicapping behaviors. Stress results from the attribution process in which one examines how past behaviors have led to present consequences, while learned helplessness explains ones' disbelief that ones' actions can any longer influence future outcomes. We then relate how stress and learned helplessness interact with misattributions. The section closes by showing how student misattributions vis-a-vis their stress contribute to self-handicapping academic behaviors.

Chapter one, as the title implies, proposes that attributions do exist and operate to influence student abandon and failure behaviors. Students may rely on others' attributions when more objective information is readily available. Students who operate at the perceptual level of information processing do not concern themselves with the accuracy of the information received. Such students overemphasize a subjective and relational achievement style to the expense of a more objective and direct achievement style. Consequently students confronted with abandons and failures invest more time and energies to protect their self-presentation rather than to deal with the problem of academic performance. Clearly then there is a self-handicapping misattribution process that operates to explain some abandons and failures in the academic milieu.

Overview of Report

Chapter One explains the attribution process and its relation to Cegep student abandons and failures. We begin by presenting the global characteristics of attribution theory, relate these to learning, and how self-handicapping behaviors evolve from misattributions initiated by stress and learned helplessness. Chapter 2 addresses the question of how student - teacher impression formation and management owes to the attribution process. Conditioning theory is presented in Chapter 3 to explain how faulty attributions are acquired and maintained. The role and limits of 'motivating' Cegep students, in the context of attribution theory, is developed in Chapter 4.

Chapter 5 takes a long, hard look at teacher expectations towards students, student learning abilities and efforts. A strategy based on 'metacognitive monitoring' is suggested instead of the Special Remedial Services which, it is argued, is not efficient for dealing with problems in study skills.

The concepts of 'premature instruction', 'validated instruction', and 'formative feedback' are proposed in Chapter 6 as a new way of looking at an old problem. Chapter 7 presents and discusses the results we have observed at Saint Lawrence. Finally, Chapter 8 offers conclusions and recommendations for implementing a change in a new way of thinking about abandons and failures.

Chapter 2

THE RELATIONSHIP OF STUDENT-TEACHER EXPECTATIONS TO STUDENT ABANDON AND FAILURE BEHAVIORS.

Student-Teacher Impression Formation

How is it that we 'warm up' to some people and avoid others? In more scientific terminology, what operates to determine our affinity to one person and not to another? We saw in Chapter One, with the Bruner and Potter (1964) results, that we actively extract information from our environment and compare the incoming information against the 'standard' that is reflected in our educated guesses, or more accurately our 'expectations'. We also affirmed that if persons have difficulty recognizing the stimuli once it is brought into focus that quite likely something even less objective when 'in focus', such as a person, would be even more susceptible to greater misattributions.

Kelley (1950), in what is now a classic study on the subject, has precisely shown this to be operative - and within a student-teacher framework to boot! A class of college students was led to believe that their regular instructor had to be excused that day and replaced by a substitute teacher unknown to the students. The students were given a brief 'biographical sketch' of the instructor, and asked to evaluate him after his presentation. The biographical sketches were identical except for the use of one adjective: 'warm' and 'cold'. Students were asked to complete and rate the instructor once he had left.

Student responses for the 'warm' condition clearly described their instructor with more positive descriptions than those given the 'cold' biographical sheet. This was so true that it even tainted, 56% versus 32%, participation rates for each group, in the following discussion. In spite of the presence of the person to be evaluated and being able to rely on one's own perceptual inputs the attributed dispositional traits, 'cold' vs 'warm', affected ratings, as well as interpersonal relations and communications afterwards. The active extraction process in our relations and communications apparently focuses on 'central traits'. What is important to note is that this highly subjective process is influenced by what others tell us about

another person.

This research shows that what students hear or are told about a teacher greatly influences the attributions made about that teacher. What would happen if the teacher were to be the source of feedback about himself? In other words, what would happen if the teacher confided in his students their experience with dispositional shift [see page 12] with regards to teaching, learning etc. Could this not help the student make more appropriate attributions by sorting through the misattributions that other students could make about the teacher.

Once again we have to defer this discussion to a later section. Let us just state for now, with proof by argumentation to follow, that what needs to be considered is the interaction between student and teacher needs for affiliation, power and achievement.

Student-Teacher Impression Management

Teachers and students mutually infer each other's attitudes and emotions following some set of 'rules'. How these emotional evaluations, i.e. attractions, influence students is explained by Balance Theory and the Reinforcement-Affect Model.

Heider (1958) proposes that in interpersonal relationships we either negatively or positively evaluate another depending on whether he thinks, feels or values what we do. In terms of central traits, this means that one actively seeks, weighs and evaluates others on the degree to which they hold or should like to hold those traits that are of primary importance to us.

Reinforcement-Affect (Reiter and DeVellis, 1976) has shown that we form such negative or positive emotional evaluations of others on the basis of our perception of the instrumentality of their actions towards us. For example, someone who doesn't make eye-contact or say a friendly 'Hello!', while passing you for the first time on any given day, is most likely to be attributed words, such as "This person is antisocial with me". If this is persistent behavior we gradually come to associate the place, time etc. where this behavior occurs and confer upon it some negative evaluations. We come to expect antisocial behavior from that person and we quickly learn to recognize it. Of course by such time we now simply say "This person is antisocial."

The attribution process in seeking balance, and by mutually reinforcing each other's antisocial behaviors, has produced attributional processes or expectations. Of course in Cegep the question is not social amenities. How this process is used

within the student-teacher relationship is the focus of this report. Iinstrumentality in the academic milieu are: Formative feedback; the reinforcers used to elicit student responses; the contingencies amongst behaviors, consequences and outcomes; the sequencing, content and objectives of the course; and the delivery and pace of instruction and the student's perception of his place in that process. All of these have been reported in the literature as related to academic achievement.

We defer a discussion of these variables to Chapter 6 'Cognitive Restructuring of Expectations'. At such time we will discuss these as the variables to include in the content and process of feedback teachers need to give to students to change student perceptions and expectations. The immediate task before us is to discuss how interpersonal interactions contribute to achievement styles and misattributions.

Student-Teacher Interactions and Achievement Styles

Interpretive sociology, and in particular the symbolic interaction persepctive, stress the importance of social interaction in the social construction of the 'reality' of cegep life.

> For interpretive sociologists, people are understood as acting and interacting on the basis of the meanings that situations have for them. Such meanings may become widely shared and unproblematic; thus, interaction may become highly patterned and predictable and these patterns may persist over long periods of time, even over generations. But, it is asserted that these meanings nevertheless have their origin in interaction, that they persist only so long as they remain unproblematic and are maintained, and that they will change as circumstances change. ...
>
> Interpretive sociologists would be interested not so much in why but in how students become dropouts, how they come to be so 'labelled,' and how they come to accept this label and act in terms of it. In other words, interpretive analysis focuses on the process of interaction between students and significant others such as peers, teachers, administrators, and parents [Rosenberg et al. 1983; pages 59-60].

How the student attaches meaning to another person is related to the situation, the event, and the environment in which the interaction takes place. The student's experiences with the negative emotional label 'failure' occurs not only from his

experience with the teacher but in the context of courses, and an educational institution.

As we have seen from the reinforcement affect model, these contexts also come to evoke negative emotional meanings. The consequence, as Wegner and Vallacher (1977) discuss, in context of evolving an 'implicit psychology', is for students to engage in negative self-talk and attributions. The student's primary self-attribution is situational. He will 'naturally' look to the course, the teacher, the pedagogy etc. for explanations about his academic failure. Then, as the dispositional shift occurs, students are more willing to question this role in accounting for their results. As we have stated, at this point the student turns to others - usually students. We have argued that this only causes more attributional errors. The teacher, the one person who is most likely to offer constructive feedback about his academic non-performance, is being ignored. If feedback about performance is so important to the student how is it that he avoids getting it from the teacher?

We will recall that we seek to make sense of others behaviors and to understand our own in order to better control our environment. This process is called attribution which has perceptual, cognitive and affective aspects. The Opponent-Process Theory (Solomon and Corbit, 1974) strongly suggests that the habit to perceptually and cognitively analyze is done so at the expense of affect. That is, the opponent process theory may be used to explain why failure- or abandon-oriented students come to *tolerate* or *withdraw* from their academic situation. Teacher attributions are based on the analysis of perceptions about student cognitive behaviors while student attributions analyze affective aspects of the teacher's invitational and expectation behaviors. Students and teachers are not working within the same attribution framework - and quite intentionally so from the student's point of view. Perhaps the following analogy will help the reader better understand this rather complex theory.

We can note an opponent-process tendency in some general cases. How many of us have complained that 'bankers' are 'heartless'. That is, their habit of cognitively analyzing what they perceive has lessened their affective abilities. Of course we can *understand* [perceptual-cognitive processing] that this need be so, otherwise the funds which they administer would not reach those for whom they were intended. However, we can also *feel* [affective processing of the feelings of the bankers] that they are no longer stressed by having to make routine decisions that will affect the lives of those whom they serve. We really come to wonder if they haven't detached themselves from any emotional commitment to what they are doing. The answer of course is that they do very much care - to the point of controlling their perceptual information processing by at least sorting out information into cognitive or affective categories.

The development of this routine in failure and abandon oriented students, since they are the ones involved in making attributions about themselves, has the reverse effect - just as predicted by the fundamental attribution error. They see themselves as students-as-persons who are to be treated as such by the professor. The students' perception of the professor's lack of affective involvement with them, when it arises, leads them to make an unfavorable attribution about the teachers' interpersonal relations and communications.

These communications are not about the cognitive aspects. The student tolerates these and learns to withdraw from that. Just as we do with the seemingly unemotional banker whose financial decisions on our behalf will affect our lives. These communications are about the teachers' invitation and expectation behaviors. What the student fails to understand is the role that his own expectations and invitations may have in influencing the teacher's behavior towards him.

Just as teachers may try to make sense of the student's cognitive and perceptual behavior the student is trying to make sense of the teacher's affective and interpersonal behavior. Both are trying to understand the causes of each other's behaviors without, apparently, realizing that they are engaging in fundamental attribution errors about what it is they are perceiving. The student thinks he is asking a question: "I don't understand," to quote a very popular one made by students. The teacher addresses the cognitive aspect of the question, in his reply to the student, and ignores the affective or interpersonal relations and communications' aspect of the question. The teacher's response to the interpersonal aspect is some sort of misattribution or even possibly a correct attribution. Either way neither the teacher nor the student will ever know because it remains an unstated attribution. An attribution which can eventually build into an expectation and act as some sort of standard against which the student will have to measure up. Of course the student will never know what this standard is because the teacher is barely conscious of it himself.

The teacher is usally trying to maintain some sort of respectable self-presentation and actively avoids confrontations with students. Many teachers would be inclined to say: "I don't understand that you don't understand?!" But rather than to deal with this underlying issue, the teacher keeps the discussion focused on the 'safe' cognitive aspects of the question. After all, if the student is not willing to understand the teacher can always put and end to the conversation.

Student-Teacher Relationships and Attribution Processes

Attributions of High versus Low Student Need Achievement and the Approach or Avoidance Gradient in the Student-Teacher Relationship

The concept of an approach and avoidance tendency suggests that there are characteristics and a process that operate to differentiate between 'good' and 'poor' students. We prefer to refer to students, in accordance with the convention established in psychology, as high versus low need achievers [nAch]. There is a wealth of psychology research and discussion on this very topic . Cursory treatments and succinct summaries, for those interested, are to be found in any recent general or introductory psychology textbook. Our immediate interest is to relate the concepts of student nAch and interpersonal relations between teachers and students with student styles of achieving.

Let us review, at this point, some fundamental knowledge about how expectations interact with motivation. Suppose we tried to motivate student enrolment in Cegep by informing them that each one has clean rest rooms, fresh drinking waters in fountains, controlled heating, pleasant and fairly comfortable classroom environments etc. It won't motivate them. This information may motivate a student from an underdevelopped country or a ghetto to go to Cegep but it would not influence a middle class quebecois' decision to attend college because he expects a cegep to have these environmental characteristics.

If the student is from some underdeveloped country, ghetto or some other similar environment, the environment just described will be positive because it is not reasonable for that student to expect it. However, if the student were from the Quebec middle class strata we would get a resounding laugh to this description as an effort to motivate them. They have come to reasonably expect this in their educational institutions. It no longer motivates them.

However, if one were to restructure the environment so that it would become a very poor one, the student from the poor environment would still continue to study. The Quebec student would complain and refuse, quite likely, to even enter the building. While the same educational institution may motivate one it may 'demotivate another'. The underlining difference is one on the power of expectations.

This idea is presented in Table 1: "Student-Teacher Expectations". Teachers expect of students what they expected of themselves when they were students and more! Heaven help the Health Science student who may have a science teacher who, for example, wasn't admitted to Medical School. That student doesn't know it, but unless the teacher has come to grips with his own dispositional attributions, that student will have to do much better than what the teacher expected of himself.

TABLE 1: TEACHER EXPECTATIONS OF STUDENT PERFORMANCES

Perception	Cognition	Affect
Student's behavior is noted because it is better than that of others.	Student's superior performance is due to ability & effort.	Student didn't expect warm interpersonal relations and communications from teacher. If he gets them its for the better and if he doesn't then he can still make it by his own effort and ability.
Student's behavior is noted because it is worse than that of others.	Student's inferior performance is due to a lack of ability and effort.[Note 1]	Student expected warm interpersonal relations and communications from the teacher. If he gets them it won't add to his motivation but if he doesn't get them it will afffect his expectations and reduce his motivation

Teachers are perceiving and believe to be responding to students' cognitive characteristics. Reading Table 1 from right to left we notice that students expectations for teacher interpersonal relations and communications, when not met, could produce abandon and failure behaviors. We underestimate the importance of our interpersonal relations and communications with our students. The student cognition is not the equivalent here, 'Note 1' in Table 1, of the teacher's cognition. From a student's point of view, "Student's inferior performance is due to external events beyond my control, such as task difficulty and poor interpersonal perception by the teacher."

The process by which we communicate what we do involves not only an official and intended message but also involves a 'silent curriculum' (Hosford, 1978). Without venturing into this vast field we may rely on an authoritative study of the issue reported by Wang and Weisstein (1980), following two National Conferences on Achievement Motivation with American students. The conclusion, according to their exhaustive study of the issue that concerns us here, is that low nAch students are more susceptible to teacher expectation effects. That is, they are more dependent on the teacher's control over reinforcements, since they have less control to manage their own learning. It is thus the low nAch student who is especially sensitive to the cognitive and affective aspects of teacher expectations. Increasing stimulus inputs is a typical reaction when one realizes that one is attending to too little of the stimulus target. This means that when students say ' I don't understand' and are treated with warm interpersonal relations and communications, they turn their attention away from the material and towards the teacher. As we will show in the section coming up, low nAch students use a relational achievement style. At this point we can and must make a difference. But, before stating how and providing an example we still need several theoretical 'building blocks.'

Gergen (1979) suggests that personality is the sum of the roles we play. Our perception of ourselves and others depends precisely on the role we are assuming. A central perceptual and cognitive characteristic of the student-teacher relationship is status. The teacher is perceived by both persons to have greater status. What effect does this perception have on the role in relation to attributions about achievement? The following theory and research will help us to answer this question.

Jones and Nisbett (1971) report that a difference in focus of attention and different types of information available to the actor or the observer can account for the existence of attribution errors or misattributions. One focuses far better on the external world than on ones 'internal' world. That is we are better able to observe the behaviors of others than our own behavior. As an actor we have more information available to us about the influences of others, the place the context etc. than would and observer looking at our behavior.

This is quite in keeping with the Schacter-Singer Theory of Emotions and especially Bem's extension and re-interpretation of it in the light of attributions. Bem (1970) suggests that the internal receptors provide less information than that derived from our senses that interact with the external environment. He suggests that we 'peek' outside of ourselves to ascertain the feedback being provided about us as a means of labeling our emotional experience. Valins in an ingenious experiment provided the experimental support for this theory.

Valins (1966) led volunteer students to believe that he needed their cooperation to act as 'judges' for selecting a series of semi-nude female pictures that he needed for another experiment. It was suggested that the best measure was rapidity of heart beat. Students were asked to allow their heartbeats to be recorded and amplified through a loudspeaker. That is, some students were lead to believe that the heart-beat feedback was theirs when in fact it was a recording of a pre-determined fast heart rate.

Student ratings for each picture were obtained as the experiment progressed and then correlated with the heart-rate feedback. Interestingly enough the students who had been given inaccurate heart-rate feedback preferred significantly more often the photographs of semi-nude women which were associated with the pre-determined 'fast' heart beat feedback. Even after several weeks, in a follow-up, Valins discovered that the students still expressed a strong desire to keep the pictures, which they were given for participating in the project, that had been associated with the misleading feedback.

The status of the experimenter operated to influence credibility about the bogus accuracy of heart-rate feedback as an adequate measure of the student's rating of the photograph.

Obedience to authority figures is a well documented fact in the literature of psychology. The interested reader is referred to the classic studies by Stanley Milgram. We now need to re-focus our attention on the following question. What effect does the perception of status have on the role in relation to attributions about achievement? We have established that the perception of one's role can be, and is influenced, by the perception of the teacher's status. We have suggested that feedback provided in the interpersonal communication may make a difference about student achievement behavior.

The student must make a self-presentation to the teacher in seeking feedback about his performance. In that self-presentation the student is acknowledging that the teacher has the power and the competence to provide this feedback. The student's self-presentation behaviors are rarely discussed. This is the critical point. Rather than to politely comply with the student's request, one may use one's interpersonal relations and communications skills to make getting this feedback contingent on performing some desired academic effort.

Knock on the door."Yes, come in."

"Sir? Could I ask you to re-read my answer to question 3 on the last quiz. I got 0/10 for it." Makes the motion to hand the sheet over to the teacher.

"I'll gladly do so. Perhaps for the next class if I get the request for the re-read in before the end of the day."

"Request for a re-read? What's that?"

"Unfortunately I don't have the time to correct and consider re-correcting the student's work. So, I ask students to write a brief paragraph or two to tell me more than a simple 'I don't like my grade'. Usually, if the student takes the trouble to accompany the request with a re-write of what he now knows the answer to be, I can manage to give the student some of his grade back."

The student at this point blurts out: "You mean like explaining that your quizzes are always strictly timed and this once everyone seemed to be having problems so you gave us and extra 5 minutes."

"Yes, I see but I don't quite get the connection."

"Well, I planned my time and wrote accordingly. When you gave us that extra time I added some afterthoughts, which I guess weren't very helpful."

"That sounds like something I'll have to think about the next time I plan quizzes. Thanks for telling me about it. Do you think you now know what the answer should have been?"

"I'll have this re-read request of yours, with the correct answer, in your hands, within the hour!"

The student quickly understands that this is not going to be some guilt finding trip or a flimsy disguise to put them off. The student has to first motivate himself and then the teacher. The idea is for the student to understand that ability and effort explain past, present and future evaluations. If the students aren't satisfied with what they have been doing then the teacher will help, contingent upon students helping themselves!

Lambeth's (1981) conclusion, in an extensive study of this process variable, supports our conclusion.

> ...Achievement was represented by an actual component, the grade, and a perceived component, reported effort and reported learning. Answers to the following questions were sought: (1)... (2) relationships between perceived teacher behaviors and student grades, reported student learning, reported effort, curriculum type; and (3) relationships between sets of perceived teacher behaviors and grades, learning, and effort. It was concluded that the best single predictor of actual and perceived achievement was caring: ....and multiple combinations of teacher behaviors were best predicted

by learning environment, caring, and interpersonal contact.

The critical question is: How does the student's attributions about the perceived invitational behaviors of the teacher, or 'pro social behaviors', relate to the student's inclination to solicit and use feedback from that teacher about his learning ability and effort? Enzle & Schopflocher (1978) have precisely argued for this behavior using attribution theory. They have reformulated the question, as follows: "Would helping students understand their attribution and attribution processes be helpful?" The answer is: Only if the student perceives the teacher's dispositions as 'pro social'; and only if the feedback, or instructions made by the teacher about the student, are facilitative for the student.

Our emphasis on maintaining friendly interpersonal relations and communications meets the 'pro social' requirement to approach teachers. The emphasis on helping the student to help himself or herself academically, by showing him how to alter faulty behaviors, encourages the development of a sense of control and responsibility which meets the 'facilitative' requirement.

At this point we may pause to reflect on the evidence presented to link the student-teacher relationship to student abandon and failure behaviors. We have established that the student-teacher relationship influences, through feedback available to students about the teacher's pro social characteristics, attributions students make about their achievement style. The 'triggering' mechanism for such student interpretations about teacher pro social behaviors, it has been suggested, is the cognitive reactions teachers experience. That is when what teachers expected of students is not observed or what they observed was not expected. Furthermore, such differences as are experienced by teachers about student behaviors is communicated very subtly in the forms of a silent curriculum.

We now turn our attention to explaining how student attribution processes about achievement styles, developped by relying on feedback from teachers, contributes to the development of two academic achievement styles which influence their abandon and failure behaviors.

Attribution Processes, Achievement Styles and Abandon and Failure Behavior

Communication implies feedback which sometimes leads to change. Whether it be positive, neutral or negative feedback, in education it must be formative. Formative feedback implies that

sometimes insufficient or inadequate responses must be stopped. The first step is to determine if the teacher can or must intervene upon the student's behavior since this may connote for the student 'fault or wrongness' in their behavior. If the intervention is one-sided the student will feel more like having been manipulated rather than motivated by the exchange.

Change is possible when it is based on an interaction between persons communicating. In such a way the interaction becomes intrinsically motivating and the communication of ideas suggestive of change are extrinsic motives used to enhance intrinsic motives. Thus, when an interaction is meaningful to the persons involved, even if the ideas exchanged are trivial, as in 'small talk', the communicators still feel satisfied. So, it is not just the communication that is important but the context in which it occurs and the affective perception we have of the exchange.

Surely we could argue that there are teachers who are already using warm interpersonal relationships with students who could and do fail! Also, we need to understand why some students pro-actively respond to assignments while others don't. That is, why are some students underprepared? Finally, why don't unmotivated students respond when cegeps and teachers are trying to motivate them? The answer to these questions is in itself worthy of another chapter. In Chapter 3 the phenomenon of failure- or abandon-oriented students will require us to examine "prepared learning", "blocking conditioning", "cognitive preconditioning" as well as the influence of extrinsic rewards, such as evaluations, on intrinsic motivation, such as interest, to answer these questions.

To close this chapter we need to understand how students develop a 'self-handicapping strategy' about achievement styles and how it influences abandon and failure behavior.

Drose and Denneny (1983) summarize a scenario in which a new executive, with a promising career, but who has always attributed her success to external causes, undermines her self-confidence and engages in self-defeating behaviors [getting drunk before a major presentation]. They report on two experiments in which an experimental test of a self-defeating hypothesis was confirmed. They conclude that "Success or failure per se is not the overriding factor. Rather, it is the degree of control or responsibility one feels for the outcome that will determine future performance." It is interesting to note that one of the experiments cited refers to the motive for self-handicapping behavior. The experimental manipulation begins with some students experiencing either success or failure in working problems that do or do not have solutions. When students tried to work on problems that, unknown to them, proved unresolvable, they engaged in self-defeating behaviors for the next trial. However, students that initially experienced success did not do

this. They had no motive for this behavior. In other words, a student that does poorly on one assignment will have to do poorly on the other by finding some 'valid' external reasons to explain this lack of performance. The most readily available 'culprit' is the teacher. The teacher is perceived to have all the control and to make all the decisions, therefore the teacher must assume all responsibility. How the student manipulates the student-teacher relationship is a crucial factor in his strategy for explaining the self-handicapping behavior of abandoning or failing a course. The use of this knowledge to short-circuit such self-handicapping behaviors has led to attribution 'therapy'. The development and application of attribution therapy is presented in Chapter 5.

Lipman-Blumen et al. (1980) have clearly stated and documented the fact that students engage in manipulative interpersonal relations with professors.

> Styles of achieving are *characteristic ways in which individuals approach achievement situations.* [p135].
> ...
>
> The model proposes two major domains of achieving styles: direct and relational. A *direct achieving style* is used by individuals who confront the achievement task directly, using their own efforts of mind and body to accomplish their goal. Individuals who use direct styles of achieving act as agents on their own behalf, encountering the task without recourse to intermediaries. [p148]
>
> *Relational achievers*, in contrast, seek success through the medium of relationships. Individuals who utilize relational achieving styles establish, contribute to, depend on, or manipulate relationships to get what they want.
>
> *Direct Achieving Styles.* Within each of these major achieving styles' domains, we can distinguish several subtypes. Within the *direct domain*, we have specified four subcategories: *intrinsic direct, competitive direct, power direct*, and *instrumental direct.*
>
> The *intrinsic direct style* is characterized by a propensity to select, initiate, and/or seek out activities which permit direct confrontation with ones environment. ...(The) task oriented... tend to evaluate their own performance against standards of excellence which are largely independent of comparison with others. ...
>
> The *competitive direct* style is characterized by a tendency to select activities which permit evaluation

of ones own performance against that of others. Outperforming others or winning over competitors is central to this style ... (They) often evaluate their performance in comparison with the accomplishments of others they define as relevant. [p149-150] ...

The *power direct* style of achieving ordinarily involves a proclivity to select, initiate, or seek out contexts which permit control and/or organization of individuals, things, or situations as a means to task accomplishment. ...includes domination and use of personal control to attain success. ... attempt to exercise close control over all factors impinging on task accomplishment. For them, almost all tasks require organization and control. ... (They) get things done without concern for self-aggrandizement ...[p150]

The *instrumental direct* achieving style is characterized by using success as an instrument for further successes. ...(This type of person) tend(s) to evaluate achievements for their usefulness in leading to other accomplishments and to use their accomplishments as currency for purchasing additional successes. [p151] ...

Relational Achieving Styles. Relational achieving styles, which utilize relationships as the media of achievement, encompass five sub categories: *vicarious relational, contributory relational, collaborative relational, reliant relational*, and *instrumental relational*. [p.151]

The *vicarious relational* style is characterized by a tendency to achieve indirectly through identification with one or more direct achievers, or, in some instances, even with an institution. ... (They) tend to accept the "other's" achievement goals rather than to select their own. ... may satisfy their achievement needs either through a close personal relationship or simply through identifying with an achiever worshipped from afar. [p151] ...

The *contributory relational* style is characterized by the tendency to achieve through contributing to another's success. ... Contributory relational "types" identify with the direct achiever, while accepting both the goals and means defined by the direct achiever. ... the contributory relational achiever distinguishes the direc'. achiever's accomplishments from his/her own. ...(They) contribute to another's success without usurping the other's role or perceiving the task as principally their own. ...

[p151-2]

...*collaborative relational* - is characterized by collaboration among two or more peers. Ideally, all participants perceive the achievement as their joint accomplishment. ... (The person) inheres in the collaborator's preference for a social context for task accomplishment. ...[for example] an athletic team ...[p152-3]

The *reliant relational* achieving style's most salient feature is the tendency to seek situations in which other individuals (or institutions) carry out the tasks defined by the reliant achiever. Practitioners of the reliant style set their own goals; however, they expect those with whom they have established dependent relationships to take responsibility for fulfilling these goals. Reliant relational achievers tend to perceive themselves as requiring help and support to meet their own goals. Relationships provide the medium in which the seeds of that help and support may grow. ... reliant types establish relationships in which others identify with them. [p153] ... unable to cook and look to their spouses to provide meals. ... they share the characteristic behavior of getting others to help them reach their own goals. [p154]

The *instrumental relational* style is a close cousin both to reliant relational and to instrumental direct modes. It is characterized by a propensity to use relationships as a means to achieving ones own goals. ...specifies not only the task, but also the means by which others will accomplish the instrumental relational's ends. ...have confidence in their ability not only to define the goals and the means to success, but also to manipulate others toward the desired ends. ... [for example] lobbyists ...[p154]

Langlois (1975), doing his Master's Thesis on the general problem of abandons and failures in a Cegep discovered this relational achievement strategy even if he didn't identify it as such. Langlois reported that female nursing students, who failed, preferred evaluating their performances in terms of their affective relationships with teachers while those who succeeded evaluated their performances in terms of their cognitive relationships [what they had learned] with teachers. One may have been tempted to say that such responses were rationalizations or attempts to resolve cognitive dissonance. However, as research is now revealing, it appears that low need achieving students do indeed expect such warm interpersonal relations with teachers. The abandon and failure problem appears to be related to the motivational aspects of expectations. If this hypothesis is correct then these arguments lead to this

conclusion: Low achieving students are motivated by relational styles of achievement and seek to avoid disapproval by manipulating the interpersonal relations and communications with teachers. High achieving students use a direct achievement style and focus on seeking approval through meeting the cognitive expectations of teachers. The following is meant to be an application of the Direct and Relational Model of Achieving Styles to students and teachers.

- Direct Achieving Styles: Students belonging to this category have been formerly identified as high need achievers. It is interesting to note that 'direct achieving style', when used in this context, connotes a student's responsibility for achievement. The teacher is seen as a passive agent.

    * Instrinsic Direct: The student enrolls in a college, a course, or with a teacher in the belief that the material to be acquired will contribute to one's competency or 'mastery' motive. For example, a student takes several language courses, as options, and works very hard in acquiring the language because one believes it is necessary to speak several languages well in order to be a competent steward or stewardess.

    * Competitive Direct: The student is not concerned with the acquisition of knowledge as such but rather with the social implications of 'success'. That is, the student is concerned with his status among peers and with outside 'experts' or teachers. Respect, satisfaction and pride do not operate as intrinsic motives but rather as extrinsic ones since the student is not concerned with pushing oneself to one's natural limits but rather with the relative pride and satisfaction of knowing, and having others know, that one is 'amongst the best!'. We occasionally see the consequences in Cegep when this has operated in high school. The student may have come from a very small high school [e.g. graduating class of 70 students] in which he experienced this phenomenon. However, as the student progressed into Cegep competition became more severe and one soon learns that one's skills are not going to be able to place one in the spotlight. Thus the student may abandon or allow himself to fail because of unrealistic expectations. Learned helplessness sets in quickly and self-presentation strategies dictates that he behave as though they no longer want to be amongst the best. This type of student desparately needs feedback to the fact that the only healthy competition is with oneself.

    * Power Direct: Such a student is concerned with the cognitive and procedural aspects of learning: Good notetaking, active listening, revising lecture notes,

learning schedules and timetables etc.. In brief, a lack in student ability is compensated for by good study habits. The implementation of study skills' workshops, remedial services, tutoring etc. are founded on the belief that a student with average ability can learn to compensate with good study skills. The problem is that underprepared and able students are grouped with the underprepared and unwilling or unmotivated students. Remedial services, as we know of them to date, exist to help those who are in the former and not the latter group. It has been our contention that at least an important minority of the 'underprepared and unmotivated' choose to appear this way as a strategy for self-presentation. It is our assumption, developed and defended throughout this report, that such students can be helped.

* Instrumental Direct:

1. Some students realize that the diploma or the final grade or the score on a test are reflective of their performance and not of what they learn. Such students are adaptive and cope with their relative academic performances. The behavior is adaptive because it is flexible, not excessive and usually the product of rational rather than emotional thinking. The individual calmly tries to weigh the cost/benefit ratio through a means/end analysis. Such problem solving behavior is conscious and deliberate, hence 'coping'. Their conversations usually reflect concerns about what they have or have not learned and the implications this may have for their program and career. For these students abandoning or failing a course means they must take a pause to analyze the consequences of this particular result on eventual career outcomes.

2. A second type of 'instrumental direct' student believes that the same academic results are a reflection of what one has learned. They are overly concerned with the extrinsic and social reactions to their performance. While these students may cope, it remains that their behavior is maladaptive. They too engage in conscious and deliberate problem solving with a cost/benefit through means/end analysis. The major difference is that the concern is extrinsic and non-academic, hence 'maladaptive'. Their concerns are about the impact that these performances will have on getting the credit for the course, getting a diploma in the program of their choice, creating a favorable impression with university or an employer etc. In brief, they are not concerned with the analysis of intrinsic aspects of school work [i.e.learning] to career choice but rather with extrinsic aspects of

school work [i.e. grades, diplomas] to getting the career of their choice. The student who abandons or fails exams and courses in the program of his choice sees each of these events as a threat to his career. Typically the student makes an emotional decision to change programs because he can't pass a required course in the program. It isn't unusual that other course abandons and failures soon follow. The instrumental direct, with extrinsic motives, often enrolls in an option course and oftentimes bluntly states that he isn't going to work all that much in this course since it isn't part of 'their program'.

3. The third type of 'instrumental direct' student believes that scholastic results are a reflection on oneself. Quite contrary to the 'intrinsic' or 'extrinsic' types they have very little rational problem solving behavior. They are defensive and emotional. They project, displace or repress so often that teachers often marvel at just how blind one can be to one's behavior. Abandoning or failing, according to these students is symptomatic of the heavy burdens that others, the school, teachers, parents etc. are placing on their weary shoulders. They have all they can to support this emotional strain so that they don't have any energy left for studying. They don't see the escapism, intellectualization - in brief the gamut of ego defense mechanisms. For them socializing, pursuing adolescent gratifications and 'finding themselves' ought to be the substance of cegep. They would rather discuss without having read and to speak without having listened. 'Success' for these students means 'getting by' with as many 'stories' as they can concoct.

- Relational Achieving Styles: If one accepts that direct achieving style refers to students then one should expect that relational achieving style would implicate teachers. The domain then stretches beyond only cognitive development into affective education. That is, student-teacher relationships and interexperiences with mutual expectations influence cognitive development.

  * Vicarious Relational: The results from the Langlois study support this type of abandon or failure behavior. A warm interpersonal relationship with the professor is perceived as essential for learning. 'Students don't learn from teachers they don't like' might appear as an appropriate axiom for such students. Students who abandon or allow themselves to fail report that there exists a lack of warmth between the teacher and themselves. What is interesting is that often the teacher is unaware of this one-way conflict.

* Contributory Relational: The student-teacher relationship focuses on helping the student acquire declarative and procedural knowledge. Such questions as usually relate to motivation are of concern. These questions, formulated as 'recommendations', have been placed in a better context at the end of this report. Students who choose to abandon or allow themselves to fail often complain that they failed to perceive the importance of memorizing without understanding. The values promulgated by the teacher and the course clash with those of the student. The student often would realize, if he spoke with the teacher about these values, that their value is the emotional aspect of a cognitive and intrinsic motive.

* Collaborative Relational: Here the effects of peer pressure are most evident. The norms of the peer group and the individual personality conflicts coming to some sort of final effect in late adolescence interact in students to make some acutely aware that they shouldn't look superior to their peers. Thus abandoning and failure may be an immature response to 'collaborate' with ones peers.

* Reliant Relational: The key phrase is 'manipulative communications'. The student has one objective: Passing the course. This may mean using someone else's notes, plagiarism etc. Anything so long as others help in attaining the goal. The student may also violate the 'spirit' of the assignment. So, if the teacher specified ten typed pages and said nothing about the margins, then two inch margins all around are used with 10 pitch characters. The student who abandons or fails can be heard to complain that the teacher wasn't clear about his assignments.

* Instrumental Relational: Students who believe that getting to be 'chums' with the prof, having a few beers with him, inviting the teacher to some of the parties, in other words making the teacher feel like 'one of the gang' ensures passing. Abandoning or failing a course is a sign of rejecting that teacher for having violated the norms of 'his group'. That is, the students are banking on the fact that a teacher-as-a-friend increases the importance of subjective evaluations and decreases objective measurements of student tasks.

Summary and Conclusions

We began this chapter by showing that students and teachers do form impressions of each other. The way teachers view students influences how they teach them, and the way students see themselves and their teachers influences the way they learn.

We then proceeded to show that the perceptual, cognitive and affective attributions between students and teachers may influence low versus high achievement. The central variable appears to be the direction of attributions. Teacher expectations are that students want to be in Cegep and are able and willing to make the effort to succeed. Student expectations about teachers are that there exists direct or relational achievement style, or some degree between the two. That is, the student either does or does not expect emotional support from the teacher in the form of interpersonal relations and communications. If it is not expected the student's academic achievement will still be determined by the student [direct achievement style] because he perceives himself to be in control and responsible for learning. If it is expected and received the relational type achiever will not find it motivating, but rather something that is sine qua non. If, on the other hand, the relational achievement style student does not experience the emotional support he expected from the teachers, then he feels 'demotivated'.

The experience opens the door to a host of affective categorization processes about the teacher. Then, through the balance theory and the reinforcement-affect model, the student easily generalizes these negative evaluations to include courses, the classroom, the cegep etc. We close the chapter by providing real life examples of how such student achievement styles may be used to understand abandon and failure behaviors.

Chapter 3

THE DEVELOPMENT AND MAINTENANCE OF LEARNING EXPECTATIONS

Motivation: The Power of Expectations

Academic Context

Not only may we use learning principles to help others modify their thoughts and feelings but we can teach students to modify their own thoughts, feelings and actions. Such self-determined behavior is an important part of an education.

Student success is dependent on incoming information while teachers are dependent on information already stored. The perception of the learning situation is thus at opposites. Teachers choose to teach in a discipline because of strong intrinsic and extrinsic motives. Students who enroll in a course usually have few extrinsic motives beyond "It fits my schedule", "I need the credit", "It's part of my program", and even less intrinsic ones to help them cope. Students who ask the teacher for help usually find she promotes intrinsic motives ["The satisfaction that comes with the sense of competency from knowing", "The self-respect one develops from testing the limits of what one is able to achieve."] and proposes few extrinsic motives which has meaning for her ["You'll need to be able to do this if you want to become an engineer!"]. Thus the cognitive style of teachers in the discipline sometimes impedes the development of student motives to study. The intrinsic to extrinsic focus by teachers is opposed to the extrinsic to intrinsic cognitive style of students.

The affective aspect of the communication is strained because the student has to admit to the teacher that her level of intrinsic interest for the discipline is almost non-existent. This affective categorization is premature on the part of students. Teachers would do well to recognize the early nonverbal communication symptoms emitted by students who are having difficulty to cope with the stress of lacking motivation. A teacher instigated dialogue can do much to help students face

and cope with their faulty perceptions and categorizations about expectations for motivation. The discussion between student and teacher, about the student's motives, may then be productive if it focuses on how the student has acquired and maintains expectations about motives for her 'preparedness', 'blocking behavior' and 'cognitive preconditioning' behaviors. Otherwise the traditional discussion turns into a confrontation which leads the student to escape the unpleasant situation so as to avoid the teacher's 'disapproval'.

The Influence of Teacher's Expectations on Student Motivation

Teachers do learn from watching all those changing faces as each new wave of students enrolls for their courses. It is precisely this learning which they have incorporated that would be of benefit to new and incoming students. The gratification from helping students to learn would certainly do much to increase teaching motivation or at least of slowing down teacher burn-out.

Of course many teachers will disagree at this point. Arguments such as: "It's the student's responsibility to motivate himself. If he can't or won't then he or she will have to live with the consequences!" Such an authoritarian approach is unacceptable for two major reasons. Appealing to student responsibility to find for oneself the motivation to study is based on circular reasoning. We are precisely asking the student to rely on that which she is identifying as difficult. And, as if this were not enough, we are communicating a very important affective message with very strong implications for student perceptions of teacher invitational behaviors - Teachers don't care about me! The concept of affective education doesn't mean watching our delivery style, or 'being nice' to people. It means being genuine and authentic and encouraging students to be the same.

Even if student expectations could be changed, the attitude teachers have about how students acquire and maintain their expectations operates to influence the conditions under which teachers will allow student expectations to so develop. The development of this argument could be needlessly long since teacher defenses will operate at each step to bolster teacher egos. One example is perhaps worth many arguments. This is the case with this outstanding example, taken from James McConnell's very popular introductory psychology textbook Understanding Human Behavior.

> In 1980, Lt. Col. Wm. Datel reported an interesting set of experiments performed during the 1970's on Army recruits at Fort Ord, near Monterey in California.

Each year thousands of recruits find the situation fairly stressful. They ...go AWOL ...ill ...depressed ...commit suicide.

When Colonel Datel was asked to help find better methods of providing basic training, he first analyzed the situation psychologically. The basic philosophy in most army camps is that recruits must be "tempered in the fire of experience." Thus many army training methods are devised to arouse the maximum amount of stress in the recruits - and then throw them into the waters of experience to see if they sink or swim.

Direct methods of coping - like all other habits - are usually best-learned when you are rewarded for progress rather than being punished for failure. Knowing this, Colonel Datel set up an experimental unit at Fort Ord that trained a random selection of recruits using positive reinforcement rather than punishment. These men earned "points" for everything they did well, but were not penalized for their mistakes. The recruits in this experimental unit could trade in the points for any rewards they wished - including the privilege of going into town the first night they were at camp.

Colonel Datel followed his experimental recruits both while they were at Fort Ord and throughout their next several years in the Army. He compared their progress with that of a "control group" - namely, an equal number of recruits who went through the regular stress-oriented basic training at Fort Ord.

Datel's finding was that almost none of the men in the experimental program went "AWOL." This result alone saved the Army many thousands of dollars. Datel also found that his experimental subjects got better marks on such skills as rifle marksmanship and map reading than did recruits in the "control group." Furthermore, when the experimental subjects went into combat in Vietnam, they performed better under enemy fire than did the "control group" recruits. And more of the experimental group reenlisted at the end of their term of duty than did members of the "control group."

Despite Datel's data, the Army abandoned much of the experimental program a few years after Datel had set it up. Most military commanders apparently still believe that "sink or swim" techniques are the best way to help recruits learn to cope with stress.

Unless teachers are willing to admit that they do have expectations, and that the central one appears to be that we expect students to meet our expectations, then we need not

pretend we are primarily interested in student achievement. We are, as the Army Generals, interested in our own needs for power and achievement by getting students to do as we want.

Student Expectations About Teachers' Attempts to Motivate

We need to consider how students learn to cope with the stress of dissonance between their affective needs and their cognitive development. To break this chain of unusual contingencies the student needs to experience time out or omission punishment.

We need to make student affective motivational needs contingent on increased academic performance. The student must learn to make effort or progress in sub-skills related to academic achievement. Teachers responding to meet the student's affective motivational needs act as a positive reinforcer and serve as the 'reward' for making such efforts. That is a caring, authentic and genuine contact with the teacher is made contingent on student caring, genuine and authentic effort towards academic achievement. When the student reverts to inappropriate behaviors, such as procrastinating, the teacher will not allow this discussion to take place [omission punishment].

In omission punishment training the student learns that the teacher will not respond to her needs unless she shows effort and progress to help herself. In time out punishment training the student who has been making effort and progress, and reverts to an earlier, inappropriate level of responding finds the teacher will not entertain her questions nor provide detailed verbal/written feedback about her assignments, participation etc. The use of a continuous schedule of reinforcement must be quickly replaced with a partial schedule of reinforcement in order to increase the similarity between the training and real-life academic situations. The feedback and the praise must be for effort, and eventually progress, in academic behaviors. This is an important point since to add reinforcement for academic tasks and then to remove it would only eventually return the student to her initial behavior. She might come to perceive whatever she did as the result of the teacher's efforts, an external stimulus. If students are to come to believe in themselves then they must be helped to discover, for themselves, those consequences and processes that will bring about the desired outcomes.

For example: A simple and direct: "I want to know if you followed through with the goals we set last time and the means to attain them. If not, then I'll see you when you have followed through with them. At that time we can talk about the difficulties you had accomplishing them " [omission punishment

training]. If the student wishes to have clarifications then the conversation must focus on the efforts being deployed. Complaining, criticism, 'put downs' and 'put ons' are social defenses and must be treated as such. The student must be reminded to talk constructively about what she is or is not doing and encouraged to formulate hypotheses about the problem and its solution. Otherwise the student is asked to do some thinking along these lines and then to return to discuss [time out punishment training]. It is essential that this be done in a non hostile manner and without comparing the student or her performance with that of others. The student must account for her actions. At first the teacher repeats these directives and provides feedback for each student effort [continous schedule of reinforcement]. Eventually the teacher need only remind the student to recall what has been agreed upon and to gradually withdraw so as to permit the student more opportunities to engage in problem solving behavior in the presence of the teacher [partial schedule of reinforcement].

Mutual Responsibility for Student Achievement Motivation

Creating situations to experience the contingency between actions and consequences fosters responsibility (Tilker,1970). Cegep students' acquisition of declarative or factual knowledge is shown (Deshaies,1983) to be related to the students' acquisition of meaningfulness. The procedural knowledge showing how teachers and students can interact to promote meaningfulness in their teaching and learning experiences has been lacking. Hence the necessity for this section.

Ignoring the student for inadequate or inappropriate behaviors will reduce the stress and allow him or her to better cope with the teacher's learning expectations. Planning with the student her assignment and then following it up with discussions, alone at first and then in class, will produce sufficient positive academic experiences to make a difference to a number of students who would otherwise abandon or fail [See examples 3 and 7 below]. This is likely to operate because the student has participated in setting the goals and the reinforcers. Thus the teacher and the student have worked out a form of "psychological contract" in which each agrees to have some honest dialogue about learning and teaching motivation. Part of this dialogue must include the feelings that one has about being manipulated. So the teacher and the student can work out a strategy and not a mutual "I scratch your back and then you scratch mine" routine. This means that both will have to give up some of the needs they have for being liked and to learn to face the challenge of constructive feedback. The issue of how much feedback is required and under what conditions it should be used is treated

in Chapter 5.

The first step is to concern ourselves with the adequacy of student achievement. It is either satisfactory [a grade of 60% or more] or it is unsatisfactory [a grade of 59% or less]. The second step the stimulus consequences refer to the initiation of teacher behaviors, supportive or non-supportive, as a consequence to the student's achievement. The discriminative cues in step three refer to the metacognitive and educational life skills that students do or do not manifest. That is the students' awareness and use of concepts on how to acquire learning and to deal with those who dispense it.

To explain discriminant operant and punishment learning means to explain why the student would not learn to respond only to the teacher [discriminant operant] or to avoid responding only to the teacher [discriminant punishment]. The answer lies in the student's conditioning history. Creating a reinforcement history in the student' academic behaviors is likely to lead to increases in those behaviors for at least that teacher. Other teachers and courses are likely, through the principles of stimulus generalization, to also experience the student's attempts at better academic behaviors [response discrimination]. The student who performs satisfactory academic behaviors [discriminative cues], whether he is or is not aware of manifesting them, risks getting into extinction or escape learning, respectively.

Students need to have an approach that also permits them to ask teachers to help them. For this, greater student skills in interpersonal relations and communications are necessary. Student interpersonal relations and communications skills must be at a level sufficient to benefit from such student-teacher exchances. This need is met in another report being prepared and distributed simultaneous to this one.

The following are examples of the application of cognitive behaviorism principles to learning which are presented in Table 2: 'Conditioning Strategy for Promoting Student Academic Behavior.'

1. The teacher assigns a good grade for work done. Student effort and other academic behaviors, which go unnoticed or not commented, are not directly reinforced. The student is left to decide [discriminate cues] which have produced the grade.

2. The student who is not making academic efforts and progress is given attention [reinforcer] from the teacher who suggests study skills and the like to help her remove deficiencies. As we have shown this appears to be an underlying affective motive present in low-achievement oriented students who matriculate in Cegep [Prepared learning]. Of course the student has never been made to

feel the need to ask for study skills help. The likelihood is to have a student who will fail but know that the teacher "really tried" to help. It's not the perception of the teacher's efforts but rather of the student's own efforts, that we wish to change.

3. When student efforts to make changes in academic behaviors but go unnoticed by the teacher; or when the teacher refuses to discuss student effort. The student will feel the situation is hopeless and will likely abandon the course.

4. Punishing language, reminders of personal inadequacy and negative feedback [what student's don't do!] lead students to reject cognitive development since it appears to be done at the expense of affect. Students complain about being treated like a number, of "teachers not caring". The results are likely to be abandoning or failure.

5. Student-teacher relationships when used as a reinforcement and made contingent on student efforts and progress in academic behaviors are likely to lead to increases in such efforts.

6. The student receives a minimum of positive feedback and has no recourse for discussion or explanation with the teacher. The student must take some time out to reflect on the fact that not doing what is expected leads to the removal of certain privileges [time out punishment training]. Conversely the student realizes, for himself, that teacher attention and discussion are available [omission punishment training] in as much as he makes efforts and reasonably progresses in academic behaviors.

7. Extinction is defined as presenting the conditioned stimuli [assignments and homework] while withholding the unconditioned stimulus [teacher availability for a friendly discussion about student personal efforts and problems in learning]. Eventually the conditioned response [effort and progress] will disappear. Again, these items must be made known to students who will be exposed to teachers who are not familiarized with procedures that operate to extinguish desired behaviors.

8. Avoidance learning refers to those students who are not willing to accept a teacher's offer for help. They will not keep appointments, and even if they do they will not come prepared, comin only with excuses etc. For these students a simple reminder that if they do change their minds, and if time permits, you will be available for another meeting. For an excellent and original treatment of how such faulty learning distorts student views of education and makes them resist efforts to change see

Thompson (1965).

TABLE 2: CONDITIONING STRATEGY FOR PROMOTING STUDENT ACADEMIC BEHAVI

G R O U P	Discriminative Cues [Metacognitive & Educational Life Skills] Are Not Manifested by Students Student Academic Behavior	
	Satisfactory	Unsatisfactory
Supportive Teacher	Indirect & mostly covert positive reinforcement [Example 1]	Negative Reinforce-meant [Fail] ["Prepared learning" [Example 2]
Non-Supportive Teacher	Escape learning ["Blocking"] [Example 3]	Punishment [Abandon failures] Punishing language and neg. feedback [Example 4]

	Discriminative Cues [Metacognitive & Educational Life Skills] Are Manifested by Students	
	Satisfactory	Unsatisfactory
Supportive Teacher	Direct & overt positive reinforcement [Premack principle] [Example 5]	Omission and time out punishment training [Example 6]
Non-Supportive Teacher	Extinction [discriminated operant learning needs to be accounted for] [Example 7]	Avoidance learning [Discriminated punishment learning needs to be accoun-ted for] [Example 8]

Cognitive Influences on Acquiring Expectations About Motivation

We need to understand why some students pro-actively respond to assignments while others don't. That is, why are some students underprepared? Finally, why don't unmotivated students respond when cegeps and teachers are trying to motivate them? The phenomenon of failure or abandon oriented students requires us to examine 'prepared learning', 'blocking conditioning', 'cognitive preconditioning', and the influence of extrinsic rewards [evaluations] on intrinsic motivation [interest] to answer these questions.

Preparedness

Garcia and Koelling (1966) and S.H. Revusky (1968) have demonstrated the concept of "prepared learning". Organisms associate internally functioning stimuli [induced illness] with internal properties of the stimuli [taste in this case]. Conversely, external type stimuli [light and noise] are associated with external characteristics of the stimuli [electrical shock]. That is, two or more stimuli, in these experiments one internal [sweet taste] and one pair of external [noise and light] stimuli, were associated with drinking water. After several acquisition trials the organisms, now accustomed to the sweet / bright / 'noisy' water were divided into two groups. In Group 1 the organisms were given an illness producing substance immediately after drinking; Group 2 organisms were given a shock. The critical trial came when both groups were each given an opportunity to drink when either the internal or the external stimuli was presented. Organisms who had received the illness inducing substance [internal response] showed signs of having learned to avoid sweet [internal stimulus] water and ignored the light and noisy stimulus. However, the organisms that had received the shock [external response] showed signs of having learned to avoid "bright / noisy" [external stimulus] water and not to respond to the sweet water. This sort of conditioning establishes the presence of "prepared" or adaptive learning. The organism thus learns to avoid certain stimuli to protect itself based on the expectation it has learned to make between the external event and internal changes.

The dual stimulus in student learning has been the teacher's task and person orientation towards the student and her academic performance. The student has learned to associate a person oriented teacher with herself and a task oriented teacher with her academic performance. Teachers have for the most part been overly person oriented in elementary school which has contributed to strengthening this student conditioning. It's only a little

later, perhaps in Cegep, that the student starts to realize that academic performance is task oriented. The encouragement, praise and other social and emotional reinforcers are quickly being placed on a partial schedule of reinforcement. The student doesn't know what is happening. As the teacher's social and emotional involvement with the student change the student looks to internal aspects of herself to explain what has happened. From there, the faulty emotional categorizations run rampant. Kids don't learn from people they don't like!

At this point one may ask: "Well, how come some students respond with ability and effort?" The answer is in understanding precisely the dual nature of the external stimuli. We have seen in a previous chapter that students have expectations about teacher interpersonal skills and competence in their discipline. How students 'block out' one in favor of the other has been shown in an area called 'blocking conditioning'.

"Blocking"

The power of interpersonal contact with teachers for low achieving students is weighed with other stimulus properties in the academic and social environment. Choosing to attend to some stimuli eliminates or 'blocks' attending to others.

Cegep teachers are primarily there because of what they know, and how well they can teach this material. Of course warm interpersonal relation and communication skills with students are an asset. One would expect that the teacher's warmth, an additional stimulus variable, would to be sufficient to produce the conditioned response of desirable student academic behavior . As it turns out this is not the case. The "blocking" paradigm (Kamin, 1969), which is presented in Table 3, points out that the major difference in the strength of responses to academic stimuli for assignments and the like is due to the low achieving student's recognition that information in trial 2 is redundant. The additional information, "teacher warmth", is not sufficient to act as a conditioned stimulus. This is why it is necessary to begin with discussing student expectations with students in order to eliminate this faulty perception that motivates them. Focusing the student-teacher interpersonal contact with low-achieving students is likely to lead them to appreciate the interpersonal contact when it is made contingent on instrumental academic behaviors. That is we should not simply and passively present this added teacher 'warmth'. We should plan to use it actively. We know low need achievement students have a relational style of achieving and that it is a very strong learned association. Why not make accessibility to a teacher'a warm and friendly feedback contingent upon the student performing desirable academic behaviors?

Once the student is told and reinforced for positive academic behaviors - effort and ability - then teacher friendliness and

cooperativeness can and will be sufficient to act as a conditioned stimulus. Clearly then, one needs to tell students [to minimize their stress which leads to abandons and letting themselves fail] that they will have to meet with the teacher to discuss academic skill difficulties in order to make better efforts at cognitive development. The initial strategy is to politely invite students to come by to offer you copies of the notes they took during your class; to discuss their comprehension of the material assigned etc.. As soon as the student does keep the appointment, and they will try to avoid this unpleasant situation, then turn the discussion on how the expectations you and she have is influencing each other's motivation. Ask for suggestions to change or adjust these perceptions. Actively listening to the student, encouraging them to express what they think and feel, accepting in a non critical way the information in private, asking the student to assume the responsibility for suggesting behaviors that you and he could talk about to better her 'attitude' about studying will usually lead to interesting results.

TABLE 3. The "Blocking Paradigm"

	EXPERIMENTAL GROUP	CONTROL GROUP
Trial 1:	CS: Student relies on teacher competencies for learning PAIRED WITH:	CS: Student relies on own effort and ability for learning PAIRED WITH:
	US: Assignments and other academic stimuli	US: Assignments and other academic stimuli
Trial 2:	CS2: Student relies on teacher interaction + teacher is friendly and cooperative PAIRED WITH:	CS2: Student relies on teacher interaction + teacher is friendly and cooperative PAIRED WITH:
	US: Assignments and other academic stimuli	US: Assignments and other academic stimuli
Trial 3:	CS3: Teacher is friendly and cooperative	CS3: Teacher is friendly and cooperative
	US: Weak response to doing assignments and other academic work	US: Strong response to doing assignments and other academic work

NOTE: [2]

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2. CS, UCS, CR and UCR mean conditioned stimuli, unconditioned stimuli, conditioned response and unconditioned response

The idea is not to 'tell and sell' ideas to students but to get her involved in the process of making decisions about her learning strategies. Asking students to make realistic suggestions for alternative means of evaluation, to prepare written suggestions of actual questions for tests, etc. usually contributes to an acute awareness of the problems. Of course if the teacher takes it upon herself, once again to make the decision about which student suggestions should be used, the process is short-circuited. Submit for class evaluation copies of the questions that students did complete. Either randomly select some from each student's paper or list all of them. Encourage students to impose order, to determine criteria etc. for tests. Their process of preparing a test on which all can agree, which held the promise of an easy grade, soon leads them to seek the teacher's 'expert knowledge'. They now listen because this is a very real motivating issue that influences their cognitive development and academic performance.

Students who do not come to class with written suggestions, and who do not participate in the class discussion etc. are making a powerful statement to others about themselves. They usually are aware of using this strategy and they full well realize that it prevents them from using self-handicapping behaviors to explain abandoning or failing the course.

Cognitive Preconditioning

It is quite possible that cognitive preconditioning has also occurred. This means, simply that there has been a reversal between trials 1 and 2. To continue our example this would mean that students have previously learned that when teachers usually call them in and act friendly it is to give them feedback which arouses anxiety and negative emotions. This latent "prepared learning" shows up ultimately as a dissociation between affective and cognitive development. Students initially expected and experienced a favorable student-teacher interaction [trial 2] and then through what we have just presented, get "turned off" to the professor because he or she refuses to take the student's personal and social reasons for not performing the assignments. So, when the teacher asks for homework, the two - teacher + homework have become associated. The response of the student is to treat the teacher as a person but to refuse the teacher as a teacher. That is, the teacher's lack of person-oriented responses towards the student is seen as a reason for ignoring the teacher's task-oriented requests. The student is on the defensive since she thinks [actually, it realy should be 'feels'] the teacher is 'insensitive'.

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respectively. The integer attached to the CS, i.e CS1, CS2 and CS3 refers to an order of presenting acquired or conditioned stimuli.

Validity of Process

This discussion has proposed that learning what to expect has motivational value to students which can and should be used by teachers to help students achieve. The necessity for this has been expressed often by cegep teachers - 'L'etudiant ne ressent pas le besoin d'apprendre' (Fortin,1976) - and is in keeping with realistic non-manipulative approaches to personality development (Mischel, 1981). The major problem is that we tend to ignore that students probably select teacher variables and then respond to special situations [i.e. student-teacher relationship] on the basis of these particular perceptual inputs. This line of thinking refers to a personality theory called 'person x situation' theory. The argument we are developing suggests that students operate these perceptual inputs on a 'value x expectancy' basis.

The student enrolls with a preconditioned social expectation for motivation: the teacher will be responsible for productivity and causality. A strategy with practical examples has been advanced in the last chapter to negate this faulty perception. However, this strategy didn't address the problem of the 'value' part in the 'value x expectancy' situation. And we probably shouldn't! An educational value refers to the students' perceptions of what she deems to be desirable and worthwhile pursuing and the means of attaining this objective. This means that the student's interest in careers and the adult roles she wishes to prepare for must remain her choice. Our job should not be to decide for the student but rather to provide realistic information that has real-world implications. The College Outcome Measures Project (COMP) report (Forrest, 1982), supports this conclusion and procedure.

> How these courses are taught, the kind of advice students receive about the courses, and what happens to students outside the classroom are important factors in assisting or inhibiting student achievement of the intended outcomes of general education [Forrest, 1982; p3] ...
>
> Finally, it would appear that students are more motivated to learn and persist to graduation if they believe that the general education program is providing knowledge and skills that promise to be important to effective functioning at the institution and, more significantly, in adult roles after graduation - particularly on the job [p37].
>
> [One of] Six Recommendations: 1) Probably the single most important move an institution can make to increase student persistence to graduation is to ensure that students receive the guidance they need at the beginning of the journey through college to

graduation. This early guidance can also assist them in acquiring the competence, through the formal general education curriculum, that they will need to complete their courses of study and function effectively after graduation...[p44].

Summary and Conclusions

Expectations operate as powerful intrinsic motives. Teacher expectations operate as 'standards' against which students must measure up. Of course the fundamental problem is that teachers rarely stop to ask themselves how this standard came into being. The purpose of the chapter is to show how learning expectations have been acquired and are maintained. We defend the assumption that there is a mutual student and teacher responsibility to help students achieve.

The concepts of 'preparedness', 'blocking' and 'cognitive preconditioning' are used to explain how students learn not to achieve. Students with relational achievement styles are motivated by person oriented learning tasks while most teachers appear to them to operate on a task orientation to learning. The blocking strategy is used to show how student selective perception operates so as to screen out information that could be useful to achievement. The preconditioning concept is used to explain that students have learned, from many past associations, that teachers all too often meet with students to criticize their achievement. Teachers talking with the student about her perception of the learning situation is a rare event. And, yet as the College Outcome Measures Projects shows, there would be a significant gain to both teachers and students if they indeed would have these conversations.

Chapter 4

EXPECTATIONS AND ACADEMIC ACHIEVEMENT MOTIVATION

Introduction to Motivation Theory

In trying to explain why human behavior is as it is, psychologists ask who, what, where, when and especially how type questions. Since there are many psychologists and even many more 'others' interested in motivation, and each formulates questions, definitions about "motivation" abound. No matter who asks what type of question though it remains that there are commonalities in procedure independent of the field for which the answers are sought. That is, the study of motivation has a content and all who would propose to use the answers about what motivates us and others must take these criteria into account. The answers to all of the following questions constitutes the essential domain of motivation: What initiates the behavior? What accounts for the directionality of the behavior? What maintains the behavior in such a direction? What eventually causes the motive to cease?

Such questions imply that there are different kinds of motives: Instincts, drives and needs ["motives"]; which in turn imply that the site of action may be innate and genetically, socially, or environmentally induced. Finally, the central question revolves around the choice or means taken to satisfy a drive or need, or simply the diversity of behaviors for satisfying motives. We study motivation because it helps us to account for individual differences, to relate biology to behavior, to make sense out of someone's behavior [inferences], and to attribute responsibility for the behavior. Of these, the attribution of responsiblity has the most serious implications.

In accounting for such differences we have used attribution theory to explain the roles of expectations, self-determination and attribution. Thus, we have considered that perception attributed to success or failure depends on whether it is ours or others [the Fundamental Attribution Error]; the intentional or unintentional motivational expectations of "unmotivated" students; how such "unmotivating" behavior has been learned, is related to learning, teaching, abandons and failures. Finally we have suggested a strategy to explain how teacher expectations about "unmotivated" students leads some students to "burn-out"-

or to engage in self-handicapping behaviors which produce failures and abandons. We have also presented, parallel to this explanation, a strategy for dealing more effectively with this problem.

Categories of Motivation Theory

Theories that aim at understanding the initiating, driving or propelling forces are "content" theories. Process theories stress the importance of the intervening individual differences, especially in goal-setting behaviors. Reinforcement theory accentuates the role of the person as a passive entity whose behavior is determined by the type, appropriateness, quantity and quality of reinforcers. It is possible, as we have shown with attribution theory, to arrive at an integration in which man is seen as an active thinker, the process theory approach, who assesses the probabilities of success or failure, sets levels of expectations, the content theory approach, and then exposes himself to situations in which the expected consequences of outcomes of behavior have reinforcement value.

If we use the famous 'carrot and stick' approach to motivation, as an example, we mean to suggest that the process of deciding and weighing amongst alternatives to determine the nature of the 'stick' and the 'carrot' have reinforcement value. Testing these has additional value. How many people daydream to determine what the 'carrot' would be if they were to win a major prize in one of the provincial lotteries? One need not be a psychologist to see that this fantasy has motivational properties. The lottery people, as a matter of fact, exploit it in their advertisement campaigns to stimulate sales. For some other persons, especially former heavy players or those who don't play, we can hear them reflect that lotteries are indirect taxes that often have people deprive themselves of simple life luxuries in order to purchase tickets. For them it is quite clear that the 'stick' aspect, another financial burden, has motivational properties to avoid buying tickets.

Extrinsic Rewards, Teacher Evaluations, Student Intrinsic Motives and Continued Interest for Studying

Our pedagogy is based on negativism. We tell students what they do wrong! We have not only eliminated positively charged external feedback but have gone so far as to replace it with negatively charged feedback. This double bind kills intrinsic

motives. Student intrinsic motives, such as interest, tend to decrease as a result of having been externally, positively then negatively evaluated. The external positive reinforcement, the praise and attention they used to receive, has been eliminated which decreases interest. Adding negative feedback, constantly reminding students about what they do 'wrong', serves as a punisher. The combination of both the abolition of positive reinforcement and the addition of punishment suppresses future student intrinsic responses to learning and evaluation.

The student, early in the educational experience is curious, interested and wishes to master the environment. The measurement and evaluation is built into the educational system to measure and record progress. Gradually the idea sinks in that educational performance and achievement are rewarding. The student soon becomes dependent on performance, as charted and recorded, as a means of attaining rewards. At this point he becomes dependent on extrinsic rewards as sources of motivation. Usually extrinsic motives enhance the intrinsic motives that are still being held in place. Students are encouraged to perform at the level of their ability and are still motivated intrinsically and extrinsically until at some point the extrinsic rewards are removed. It's not that teachers have moved from a continous to a partial schedule of reinforcement. Students start thinking that their academic preparation can no longer predict, and thus control, the outcomes of teacher measurements and evaluations. Students start to question the causality between academic preparation and outcome.

When they try to talk about it they are usually made to feel that they have caused this change. The negative evaluation process sets in. Every effort will be made to point out to the student what it is that he is doing 'wrong'. By the time we get them in Cegep they no longer know what it means to be given positive feedback for what they have done right. Saying 'thanks' to a student for trying is likely to throw him into a state of awe. Our frequent negative feedback, even if it is meant to operate as formative feedback, often creates parallel negative feelings against the teacher and the course. By shifting the blame to the teacher or to the course the student minimizes the dissonance and is admitting to himself of not having control over the situation. Having added extrinsic motivation [evaluations] to student intrinsic motivation [interest] and then removing control over the extrinsic motive is enough to kill intrinsic motives (Deci, 1975).

Teachers also use punishment as a form of negative feedback. All the preaching about the benefits of education, how students should be proud to be able to attend such good schools free of charge, how the educational environment "spoils" them with all the paraphernalia that we teachers, parents etc. never had simply arouses student guilt and shame. It doesn't stir their feelings to appreciate these benefits. This has been borne out

in previous research.

> Student meanings and values [when] used by the professor to increase the student's responsibility and identity are significantly related to academic achievement. These are most powerful when Unannounced and based on Skill-attributed directions.
>
> The implications are clear. We should not stress to students all the advantages that are afforded them while in college. It is better to go our own way doing what we know to be best, and to let students discover through their skills that this educational system with its limitations is important to their well-being. This contributes to the student's sense of identity and may help him or her to discover a greater sense of responsibility [Talbot, 1980].

The aim of current research (Wood, 1980) is precisely to understand what the student needs to be made aware of; how to approach the student; to develop a strategy for change; taking into account the limitations and constraints faced on a daily basis by real-life and not text-book type students and teachers; and finally to predict and validate if such behavioral modifications do in fact bring about desired changes in student perceptions about responsibility, causality and productivity.

We need to think about helping students find meaningfulness. It begins by experiencing how we feel and helping students to learn to express how they think and feel. Of course this suggests involving the student and admitting that his emotional reactions to what he is learning are important. But there is nothing new in this way of thinking (Tompkins, 1962). In the process of seeking control over their emotional reactions to 'meaningfulness' students may find meaning for education, for a discipline and for learning. The cognitive control of emotional processing is desirable, possible, and beneficial (Koriat et al, 1972).

It is no more complicated than simply suggesting it to students and asking them to be more objective. This is precisely what Lazarus (1974) has shown experimentally. Volunteers were asked to be 'involved' or 'detached' in watching several scenes, from mild to severe, on woodshop accidents. Physiological measures and self-reports showed that people were able to maintain a conscious control over their emotions. The mere advance warning about the scenes and being asked to remain rational [i.e. to think that this is only a movie] were sufficient to control emotional reactions.

In the cognitive control of the learning process the student can learn to be responsible and to find the meaning to justify the investment of his efforts (Maehr and Braskamp, 1986). We need

to help students feel the need, not to convince them of the need.

They go to Cegep because they are convinced that this will satisfy a need but they do not actually feel that need. What they usually feel is some well intentioned attempts to manipulate the situation. This, as we have seen, arouses defensive anxiety and an urge to do the opposite of what is expected [the opponent process theory presented by Solomon and Corbitt, 1974]. We may and should help these students but only with their consenting and planned participation. This suggestion has been reflected, in part, by teacher and pedagogical counselor participants in a workshop on academic motivation (AQPC,1983).

> Le professeur peut encore se cacher derriere la connaissance de sa discipline, alors que ses questions parfois tres inquietes concernent le pedagogique. Il peut chercher longuement du cote de la matiere et de l'hemisphere gauche; pourtant la vie affective, les besoins vraiment sentis des etudiants et les siens, ce sont des besoins reels. Les livrer, les partager, rechercher des voies qui, sans nier le rationnel, satisfassent ces besoins, cela parait prioritaire. [page 73]

Of course it takes courage to intervene and to address the problem squarely. If teachers aren't willing to do this, with at least some students, some of the time, then they will have to live with the prospect of teacher burn-out. As the student populations change teachers still must face the recurring problem of underprepared and unmotivated and unmotivating students.

The strategy is to reverse self-defeating behaviors, through the use of cognitive behavior modification principles, into educational coping skills which enhance cognitive development. Faucher's (1982) speech to the Association quebecoise de pedagogie collegial, on motivation and pedagogy, very well demonstrates the affective and cognitive interplay of the kind of honest, direct and open communication that could take place between teachers and students about learning and teaching motivation.

In that speech he reflects the popular and mistaken belief that motivation is a goal to be achieved rather than a process. As tasks and levels of difficulty change, as differing amounts of effort, and the perception of the need to invest such energies change, there is no doubt that motivation is a dynamic and not a static entity. He accurately states that for most of us, at least as we have been trained, and quite likely to promulgate, "motivation" means getting others to do what we say is to their future interest. His criticisms reflect the frustrations and hopes of someone who seeks and yet does not find the support needed to understand the procedural nature of academic

motivation.

> En tout cas, je n'ai ni vu, ni senti, ni entendu, ni lu nulle part qu'il existe chez nous des velleites de redefinition de notre propre role dans l'ecole, de notre situation par rapport a ce que nous leur enseignons vraiment, de notre effort de comprehension de l'interet des etudiants a frequenter l'ecole, de la motivation de notre relation de pouvoir avec ceux-ci, de l'orientation de nos contenus et nos facons d'enseigner de maniere a leur permettre de s'emparer de leur propre sort, de comprendre et de controler leur vecu avec confiance et d'amerliorer la situation des leurs directement, en utilisant ce qu'ils apprennent a l'ecole et les ressources qui y sont disponibles. Je nous considere suspects! Je nous soupconne d'etre plus habitues et somme toute plus a l'aise face a des etudiants apeures, qui manquent de confiance en leurs capacites, qui nous craignent et sont prets a tout ou presque pour ne pas etre victimes de nos puissants couperets. [pages 62-63] ...
>
> Enfin, a mon sens, la question ne redevient pedagogique et utile que lorsque nous la ramenons sur notre terrain, c'est-a-dire sur celui des <u>interventions</u> que nous pouvons et devons faire. Tant que nous pensons changer les etudiants pour qu'ils s'adaptent a nous et a nos boites, nous sommes hors du pedagogique. Ce qui nous concerne, c'est de transformer nos contenus, nos pratiques pour que les etudiants y trouvent de quoi comprendre, maitriser leur vie, leur milieu, s'y inserer. Comme un element utile, efficace. Ce qu'il faut, c'est nous demander ce que l'etudiant pourra faire aujourd'hui, demain, avec nos enseignements. [page 64]

Students will become responsible for their academic achievement if they have a say in the process that concerns them. Teachers, with the best and most devoted sense of intentions, have sought the goals, the means and the types of reinforcers by consulting literature and "experts". It has been a "If you will do what I say, we will be successful" kind of situation. That's impossible because it reflects absolute power and absolute obedience on the parts of teachers and students, respectively. Teachers have had a pre-determined attitude, plan, solution or idea to impose on students. The goals and the reinforcers have been chosen and used by the teacher. The student's affective response is of feeling manipulated, quite similar to having someone trying to tell you why you behaved as you did. A teacher, just reading this passage, probably feels some antagonism because I am purporting to explain behavior. We have come accustomed to fault-finding. We either blame ourselves or someone else and we resent others trying to find fault with our behavior. Our

behavior is not only our standard, we come to beleive it is the standard.

We use this standard to choose stimuli to act as academic motivation. -Our students don't complain because of our status and power, but this doesn't stop them from feeling resentful. Since the student's perceptions for academic motives weren't taken into account in teacher plans to motivate them, they can see just how unpleasant it is to have to work with a teacher that has unilaterally decided on what motivates students. Students then are probably more aware that academic motivation is a dynamic process between the teacher and the students working in consultation, to determine the means and the reinforcers. When students perceive additionally that teachers aren't aware or won't allow themselves to be aware of this necessity, the feelings of resentment turn to diskike for the teacher.

The course content and the ultimate goal of cognitive development are given. Let's face that reality, and share it with students. Let us be frank enough to tell students how we feel about what we are about to do, and share with them the responsibility for the undertaking. This, as we have seen, means sharing with students the control over the use of reinforcers to attain our goals.

Open door policies require cegeps to think about the resources needed to more efficiently work with the broader range of student skills or lack of skills. While teachers are responsible for efficient pedagogy, such as in answering questions and supervising work assignments, initial input requires the active rather than passive participation of the student. Perhaps then we will discover for ourselves the fact that academic achievement motivation causes, mediates and results from the learning process.

Summary and Conclusion

The purpose of this chapter is to show that motivation is best suited to answer the question 'how' rather than the infamous 'why'. The answers to the question 'why' reveals that we think motivation is a goal to be attained. Thus 'to be motivated' almost sounds like a static event. The answer to the question 'how', on the other hand, forces us to think about how past events relate to the current state of behavior and how changes made now could contribute to different outcomes. The accent in this approach is on process.

The central issue in motivation is one of control. We have argued that teachers' over-reliance on themselves for setting course content, goals, procedures etc. have left students with little to say about what concerns them. Additionally, when teachers do talk to, rather than talk with, students they rely on a 'tell and sell' approach in which the student is flooded with negative feedback. This technique of 'flooding' has a negative affective impact since the student can generally better remember the time, place and tone of the conversation than he can remember the many and varied 'words of advice'.

The underlying assumption is that the famous and simplistic 'carrot and stick' approach to motivation has made teachers rely too much on their own definitions of what the 'stick' and the 'carrot' ought to be. Maybe we should let students assume the control that rightfully belongs to them - perhaps then students will confide in us as to what the 'carrot' should be.

Chapter 5

COGNITIVE RESTRUCTURING OF EXPECTATIONS

Not Changing But Adding to Things as They Are

We will now propose, defend and explain an affective adjunct to Ausubel's cognitive interactionist concept of "Advance Organizer" which Deshaies (1982) has applied in Cegep. If we cut through the jargon it means that the accent should be placed on getting the student involved in the learning process. Deshaies summarizes the procedure as:

1. Aider l'individu a vivre pleinement le plus d'experience possible a sa mesure, c'est-a-dire, dans le prolongement immediat de ce qu'il est deja.

2. Aider l'individu a repecher ce qu'il possede deja sous une forme implicite.

3. Aider l'individu a developper des langages adequats pour traduire ses repechages.

4. Fournir a l'individu des occasions de confronter ses traductions avec le savoir officiel.

Le but de ce mode d'intervention nous apparait devoir se formuler ainsi: "Favoriser une acquisition personnelle et personnalisee du savoir par un individu ou un groupe en lui offrant des soutiens judicieux, ponctuels et limites". On ne peut pas assumer a la place de l'etudiant son besoin de croissance et son apprentissage, mais on peut lui fournir un contexte pedagogique ou il est plus facile d'etre motive.

The purpose of this report is to make explicit and practical the procedural knowledge, the "soutients" [supports] and "contexte" [context], which have been left to teachers to interpret and apply. The following sections considers this state of affairs, and explains how it has come to be so.

"Premature Instruction"

Geis (1970) has succinctly stated the nature of 'premature instruction':

> In this essay, teachers and instructional designers are seen as agents of behavior change. Their function is to guide, elicit, modify and create behaviors. ...
>
> The behavior change agent is, of course, only one factor in the modification of another's activities. In addition, a person's immediate social and non-social environment, his history, his current motivational states and the like, act to produce his behavior at any moment. ...
>
> The analysis involves two activities: Verifying the existence of a problem and determining whether an instructional solution is appropriate. ...
>
> The observer, then, would begin by noting that there were certain needs not being satisfied. Broadly stated: Some things are happening which people wish would not happen and some things are not happening which people wish would happen. ...
>
> All concerned members of society must have a voice in defining needs and determining which deserve attention. ...
>
> It should be noted that there is often a confusion between pedagogic means and professional ends. ...
>
> What is needed is a restructuring of curricula in terms of useful, functional behaviors, not mere testable statements of irrelevant goals. ...
>
> In summary, the performance environment should be examined with two questions in mind: (1) Is it possible to change some aspects of the present environment to evoke and support desired behaviors already present in the performance population? (2) How must the environment be changed so that the behaviors through instruction will be supported once the learner leaves the instructional system? ...
>
> The first concern of the instructional designer ought to be the definition and demonstration of goals and

> needs at the societal level. ....Finally, no such system should be developed until an inventory of relevant constraints and available resources is constructed and a plan for maintaining learned behavior is devised.

The critical aspect of premature instruction, 'pedagogic means versus professional ends' has been quietly imbedded by Geis. Students should be consulted in the process of devising the goals and means for attaining educational goals.

Admittedly it is important and necessary to learn basic content, after all every profession has standards of achievement. There are educational parameters which define boundaries of disciplines that can and must be respected. However, the acquisition of factual knowledge requires procedural knowledge. The issue is quite similar to the famous example about feeding a hungry person. If one provides a man with his food supply then he will always be dependent on you. There is not much hope for him to go beyond the limits [to expand and to plan to expand more energy] than what your food supply will alow. If, however, we teach the person to fish [to farm, etc.] then you have helped him and taught him to be adaptive and self-reliant.

When one thinks of the many Cegep students who abandon their studies or fail, or who graduate but don't find jobs, one can only wonder if teachers haven't stressed the acquisition of factual knowledge to the detriment of the acquisition of procedural knowledge. The difference is subtle. If the student has learned specific skills then he will look for situations in which to use those skills. If the student has also been taught to think about how he learned these skills then he or she can also find the means [creating situations] in which those skills are necessary. The difference, fundamentally, is that with premature instruction we are instructing students to think convergently when apparently we should be asking them to be thinking divergently. An anecdote at this point seems appropriate to explaining this subtelty.

A manufacturing concern retained the services of a mechanical engineer to adjust an expensive piece of equipment that was not attaining the production output for which it had been purchased. After a brief examination the engineer asked for an ordinary hammer, applied one swift and deft blow in a precise spot, and voila! - the machine functioned well. The account came to $400. The client made the observation that this seemed a pretty stiff price to pay for hitting a machine. The engineer replied that 'hitting the machine' was free - after all it was their hammer; but knowing where and when to hit cost 400$. The clients paid the account with a smile. The engineer had never seen this machine but he had learned not only about, but also when, to use the principles of mechanical engineering.

Within the context of Cegep abandon and failure behaviors this means that we may be inadevertently asking students to learn before we have fully thought about when such learning will be useful. A practical example from mathematics may help get this point across.

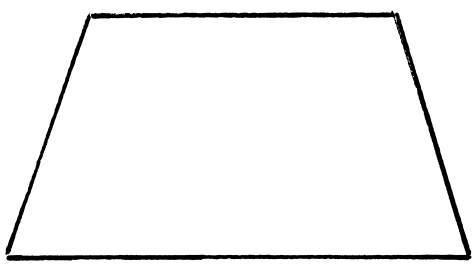
In presenting an 'isosceles trapezoid' a teacher usually draws Figure 1a and 1b. Students presented with Figure 1c often fail to see that it is a trapezoid which may also have its area calculated by alternative methods. In this case the area of the larger triangle less the area of the smaller triangle gives the same result as the first method presented. The critical difference is that in using both methods of calculations the student learns an important concept that would be ignored if only either method were used: There are different ways of arriving at the same solutions - one need be aware of these opportunities.

For example, in Figure 1d, students are asked to calculate the amount of paint needed to cover the shaded portion of the drawing if the paint will cover 10 square meters per liter of paint. Of course many of us will have difficulty because we haven't been exposed to think in terms of using what we learn. The solution is the area of the larger rectangle less the combined areas of the inner rectangle and the circle.

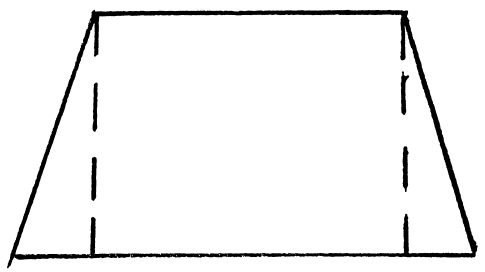
Explaining to the student that at some point in the term he or she would be expected to be able to calculate all the possible areas of a series of embedded figures, such as in Figure 1e, from the list of formulae that he or she would be expected to understand would do much more for the student than to tell them they will have to memorize them because they will be tested on them later.

If the student is presented with geometrical and shapes and with the formulae needed to answer exam questions then the challenge will be placed on understanding and divergent thinking rather than memorizing and convergent thinking.

The insight that occurs from finding our own solutions and the joy of sharing with others some new way of calculating is so intrinsically motivating that we buy such books for the sheer pleasure of 'playing' with them. Why couldn't we prepare students to find the same joy?



1a.



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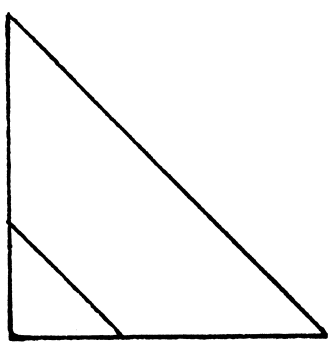

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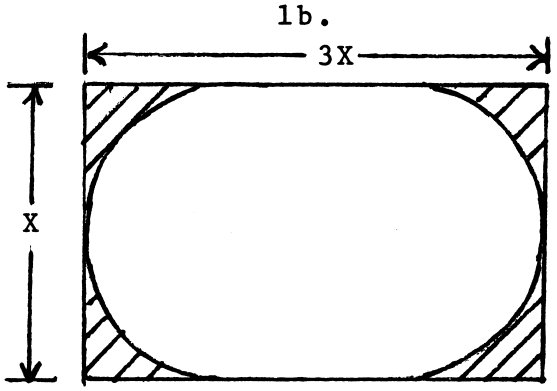
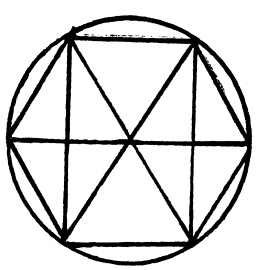


1d.



1e.

In the process of organizing and planning our courses we have inadvertently taught students that answers are found in books. The questions are in this book and in this chapter, so the answers or methods for answering must necessarily be in this chapter of this book! I asl students to think of what would happen if all the questions were just thrown into a large bowl from which he or she had to pick. Would the answer require

knowledge about chemistry, physics, mathematics, English etc.? Yet when we ask students how they would feel if we threw in questions like the preceding example, they report that there is a difference. They recognize what is expected by analyzing the functional relationships between elements. Our task is to prepare plans and then to instruct students on how to learn to recognize such opportunities.

Validating Instructional Processes

Before beginning to ask students to learn we need to assess their skills for doing so, their dispositions and their expectations. This argument has been developed and defended in previous chapters of this report. Geis (1973) proposes that this process leads to validating instruction, by which he means:

> It may be helpful to restrict the use of the phrase "validated instruction" to that which meets all three definitional requirements:
>
> 1. It is the result of an empirical process of development which guarantees the eventual effectiveness of the instructional system.
>
> 2. The terminal behaviors of the instructional system are isomorphic with, or correlated with, the real-world performance which the learner is readying himself to emit.
>
> 3. The content of the instruction is technically accurate.

The validation process is ongoing and requires that information must be made available to students at all stages of learning: [A running commentary is found in brackets.]

> In learning about, and designing, instruction we are faced with a similar chronology of events: pre-instruction information, during instruction information, and post-instruction information, [The latter two often being called feedback].
>
> The student may talk to people - informally he may consult friends who have taken the course or read the book. More formally he may consult with a guidance counselor or - if he can find him - his faculty advisor. [We have discussed in this context how subjective feedback from other students has more influences on student expectations than objective and

readily available information.]

Pre-instruction information:

1. What kinds of descriptive information is available to a college student before he enrolls for a course, or after enrollment? [The role of a detailed course outline and lecture plan seem essential.]

2. Do students take advantage of such available information? If so, how do they obtain it? How do they evaluate it? [Chapters One and Two of this report purport to deal with this issue.]

3. Do students desire more pre-instruction information? If so, what kinds would they like to have?

4. What does a student who has taken a course tell one who is about to do so?

Information during instruction:

1. How do students judge their progress during instruction?

2. Under what circumstances is knowledge of error, or failure, punishing and when is it reinforcing? [This has been discussed in Chapter 3: The acquisition and maintenance of learning expectations.]

3. How does one train a learner to seek and to use effectively information about his own performance? [We have discussed the important role the teacher may play with low achieving students who rely primarily on 'relational' achievement styles.]

Post learning information:

1. In an open situation what determines when a student stops learning? How does he decide he knows enough?

2. In a more structured and traditional setting, what does a grade or score mean to a student?

3. What else would he like to know about his recently acquired competence? How does he judge what he has learned?

4. How does he use information about his performance in making decisions about the next step he'll take?

In questions related to objectives, it is interesting to note that our subjects would prefer to talk to the professor or to a former student rather than receive a printed set of course objectives.

The worst kind of feedback, they agree, is just a mark or just being told that they are wrong. They want to know: Why? - What's wrong? Apparently they rarely get an answer to that question.

We were struck by the frequency with which students commended grading on a curve. ... Survival depends in part on the competence of others around you. ... But competence may also be looked upon socially and relatively.

Our conclusion at this point is simple: we don't think students generally know how to seek important information about learning nor do we think they actually seek it when they do know how to. Both skills and motivation seem to be lacking.

We hope that this report will help fill some of the gap between skills sought and the motivation to work to attain them. It would appear necessary at this time to formally state how to teach skill acquisition and achievement motivation while respecting our course content. The task doesn't require anything 'new', as our mathematics' example shows. It requires us to cogntively restructure our approach.

Elements for Cognitive Restructuring of Expectations

Once again Geis (1976), an associate professor of Education at McGill, and an expert on educational technology, especially feedback processes, provides us with this structure for accomplishing the task before us:

This paper examines the role of the university student as an active decision-maker in instruction. Eight variables in instruction ... are described and discussed in the context of student choice.

Definition: Student choice in instruction... the student is presented with a situation in which the individual variables (his history, his interests, his

current motivational state) are major determinants of the response emitted (i.e., the choice made).

Is not a major goal of higher education to produce an informed consumer, one who can make intelligent choices about a great many things in his or her life? The educational challenge lies not only in developing these "consumerism skills" but also in providing the student with them early enough so that he or she can intelligently manage a system of education which itself is open and provides - requires - choices.

1. PACING: Not all students are equal in intellectual endowment. The teacher should plan on having a basic set of principles and examples that are essential to the study of the discipline. Additional, more refined principles can be held in reserve if the pace of the class in general or for some few principles, appears to warrant their inclusion. Such a reserve can also be used to encourage students who appear to want and need additional work. In this manner the teacher is maintaining realistic expectations and responding to individual requests on a need basis. Intrinsic motivation and creativity are encouraged while not being required of all.

2. REINFORCERS: Traditionally the 'payoff' for students is grades and eventually a diploma. What happens though to students who fail to experience this 'success'? Certainly it must be possible to find more immediate reinforcing events. At this point student feedback can help. At the close of this chapter we will present how to elicit the cooperation of students.

3. CONTINGENCIES: Conditioning or shaping a desired response is essentially a process of expectations, more precisely the power of expectations. When one has learned that certain behaviors may be rewarded then it is equivalent to saying that one is expecting certain outcomes for certain contingent performances. We need to state explicitly the contingency between desired payoff and the contingent student behavior that will produce it. It is important that there exist some relationship between the payoff and the behavior sought. For example, it would be inappropriate to have the students work at learning to learn in order to obtain time off from class or assignments. The two are self-defeating when paired together. It would be better, for example, to make detailed written evaluations, in which the teacher shows what should have been done to earn a better grade, contingent on student explanations about what he did or did not do. Practically, this means the student will be asked initially to motivate his request for a reread by stating what he has written and what he now is aware he should have

written. Then the student and teacher can discuss what happened to explain the differences. The accent is not so much on content as it is on process.

4. SEQUENCING: The order of events, as they make sense to the teacher, are not necessarily going to make sense to the student. A principal element in determining if one's sequencing strategy is appropriate is to watch and listen for the nonverbal behaviors and preverbal sounds that students make.

5. MODE: Some students respond better than others or at different times then others, to discussions, films, sound/slide presentations, lectures etc. No one large group of students can ever be reached all at the same time. What you said and what they think you said point to the important differences in reconstructive memory. So, teachers should plan to repeat. Summarize at the end of the course and describe what is to come next. Begin the next class with a summary of the last one. Plan a review before major exams and assignments etc.

6. FEEDBACK: This is so central a topic that we have enlarged it into a subsection that follows this one.

7. CONTENT and OBJECTIVES: On this point we can assume our responsibility as teachers. The course content and the objectives of each course are dictated in the Cahier by the government. If we are to maintain intellectual honesty and to promote coherence and consistency then we must work to respect this commitment. Changes and suggestions need to be made through our Provincial Coordinating Committees.

Formative Feedback

Formative feedback means guiding someone's behavior so as to improve the quality or quantity of a performance or a product. The ideal time for formative feedback is just before a test. The ideal person for this type of feedback is the teacher because he has the ability to make fine discriminations about the student's performance.

Feedback effectiveness is determined by the communication mode; the performer's value for the task, improvement and history of success from receiving the feedback; and any competing or inhibiting behaviors.

A teacher's commentary to accompany the grade for the student's written assignment is more effective than none at all. However,

there is no guarantee that the student will have read it or profited by it. A teacher request for a brief office visit to take the time to discuss this with the student increases this likelihood. Continuing this behavior and calling upon the student to make brief office visits to exchange feedback contributes to his development.

The second aspect of formative feedback is values. It would seem desirable before giving advice on how to structure the first interview to determine if the student wants advice.

Usually when students are consulted about their 'feedback history' the teacher discovers that feedback wasn't built into the process but rather added on, almost as an afterthought.a Additionally the student was not actively involved, except to be expected to feel guilty and ashamed for wasting the precious resources teachers, parents, society have put at his or her disposition.

The teacher need only clearly state that this course and grade could be different. The student and teacher would be working together as the course unfolds to curtail inappropriate learning strategies.

The student is much more willing to participate and to seek advice when he can control the goals, the process and the outcome. Some students are afraid that the goal will be to work towards a '90%'. By asking them to report on their goal students oftentimes would be satisfied with 'passing'. We discuss this to agree that a small buffer zone may be necessary for insurance. So the student usually proposes maintaining a respectable '65-70%'. Of course this has some problems for teacher expectations about success. However, the student has set the goal and we must respect that. Teachers need only reflect on how they feel when they want to buy a car for transportation purposes and the salesperson is trying to sell them a car that will supposedly give them more than this.

The competing or inhibiting behaviors, the final aspect of formative feedback, refers to the fact that students must weigh the investment of their energies against other, and oftentimes more appealing, behaviors. Needs for play, affiliation, respect, physical fitness etc. are just as real and 'important' as competing needs for understanding, cognitive structure etc. We should encourage students to understand this and to develop timetables to maximize returns in a cost/benefit kind of analysis. What is important is that they understand how they control their behavior in time and space to account for consequences.

The following is a summary of the essential characteristics of formative feedback, within a cogntive restructuring perspective.

1. Make sure that the receiver is ready. Choose a time and a place that will encourage him/her to attend to the feedback. Reduce anxiety by describing purpose and expected results of the session.

2. Make sure that you know the what, how and why of the session. Are you going to focus on results or process? What are the two or three main points you want to stress? How will you know the receiver understood?

3. Make sure that the feedback is valued. Place feedback in a larger context and indicate immediate and long term rewards (personal as well as organizational) that the suggested changes will produce.

4. Make sure that the "correct" behavior is part of the performer's repertoire. Provide the opportunity for the receiver to indicate what new skills, knowledge or resources must be acquired if the suggestions are to be implemented.

5. Assure yourself that the feedback is understood. Ask the student to paraphrase what you have said. Consistent difficulties with many students probably reflects that you are trying to deliver too many messages in one session [information overload].

6. Make sure that the receiver can make the discriminations required if feedback is to be effective (i.e. not only understood but implemented). Ask the student to provide concrete examples of how the information can be implemented and what realistic behavioral goals can be expected as a result.

7. Evaluate formatively. Especially when designing instructional systems, try out the proposed feedback before incorporating it in the system. This means that at least at first, give the student the opportunity to try out the behavior before wanting to evaluate it against a grade.

8. Balance feedback. Formative feeback may be thought of as 'criticism'. However the feeback will have motivational properties if the teacher is careful to phrase comments and communications in a positive way. This means pointing out to students what is correct and why and then gradually showing how incorrect responses can be replaced with correct ones. Telling students that what they did is 'wrong' or 'inadequate' is negative or destructive criticism. Constructive or positive criticism takes into account that the behavior can be changed and suggests ways of changing it.

9. Try to encourage the student to develop self-monitoring and self-correction, if it seems at all appropriate. Reward and encourage students for attempts even if at first no productive changes have occurred. Student efforts at change are just as honorable and noteworthy as teacher intentions to help!

Cognitive Restructuring of Expectations and Academic Persistence and Achievement

Will cognitive restructuring, using formative feedback in a student teacher relationship, influence student attributions or expectations? If so, will these changes in attributions influence academic persistence and achievement?

Meichenbaum and Smart (1971) have studied the influence of student expectations for failure on their failure. They investigated the performance and attitudes of first year engineering students who were on the verge of failing out of university. Students were duped into espousing different attributions based on their performances on a counselling test. One group was told they were 'late bloomers' who would soon reach their peak; a second group was told that no prediction could be made from the test scores; the third group served as a control group.

The academic performances of group one were compared with the two control groups to account for testing or experimenter expectancy effects. The results showed the experimental group to have not only done better academically but also to have more significant and positive changes towards learning.

Wilson and Linville (1982) chose to study how students interpret their fear of failure in college since many have been led to think that it will be difficult. The researchers proposed, in 'attribution therapy', to have students think of the situation as temporary rather than permanent. This way of re-thinking apparently had beneficial effects on students.

The possibility of reversing the fundamental attribution error or reversing misattribution, which is at the core of the suggestions by Meichenbaum and Smart, and Wilson and Linville, is apparently possible and effective. But why? Regan and Totten (1975) have shown experimentally that the mere power of suggestion - asking students to empathize with another's point of view - reduced or eliminates misattributions. As we have seen in Chapter 4, with the work by Koriat et al. (1972) and Lazarus (1974), the mere suggestion, from a credible source, can have

powerful results for the cognitive control of one's emotional responses. The 'placebo effect' and the power of suggestion in medicine (iatrogenesis) have long been known, studied and explained by psychologists.

Storms (1973) has provided the best experimental evidence and explanation to show that feedback and self-suggestion can and do contribute to rectifying misattributions. He videotaped one of two persons engaged in a discussion. When the person videotaped was replayed the video focusing on the other person and asked to make personal comments then the attributions made about oneself focused on dispositional characteristics. That is, the viewer pointed to things said and done by the other to justify his behavior. However when the person was asked to view the videotape of himself no such attributions took place. In fact, providing students with feedback about how others saw them led them to understand how their own behaviors influenced others to react as they did. Thus, the process of providing non critical, objective and formative feedback can and does operate to eliminate misattributions.

Expanding student awareness about misattributions requires teachers to confront them with non critical, objective, formative feedback. Focusing on observable student behaviors and making a clear distinction between the student and the student's academic behavior, and letting this attitude permeate the relationship, would meet the objective and non critical feedback requirements, respectively.

We may now turn our attention to the general problem of helping students become receptive to formative feedback.

Helping Students Become Receptive to Formative Feedback

Introduction, Shaping and Reinforcement History

It is possible, using knowledge from conditioning theory, to structure the environment in such a way so that the student will emit approximations of desired academic behaviors which can provide teachers with the opportunity to reinforce the behavior. Gradual and progressive reinforcement of student responses which become closer and closer to the target academic behaviors is called 'shaping'. The process of shaping involves creating a reinforcement history for the student.

We can initiate the process by relying on the Premack principle. That is, by making the completion of a liked task contingent upon the completion of a disliked task. Students talking, explaining, offering excuses, and in brief, trying to

manipulate the student-teacher relationship to enhance self-presentation [liked task] can be made contingent upon attempts and efforts to correct [disliked task] faulty or inadequate academic behaviors.

As the student invests more and more time and energies the requests for better approximations to desired academic behavior also increase. One might think here that the student would eventually give up. Quite to the contrary, the student engages in a justification hypothesis in which he will want to act to 'protect' his initial investment. This is a procedure that experimental social psychologists have shown to be very effective in making requests. They suggest to start with something small and easy to comply with, then gradually move towards more and greater requests.

The teacher initiates the process of feedback, as we have just shown, and eventually guides it towards the student's learning problems, fears etc. There are several approaches to 'guiding': [1] Imitation, [2] verbal instruction, [3] trial and error, [4] shaping, [5] 'forcing' or guidance, [6] using threats and promises, and [7] lowering restraints.

1. Imitation Learning

Learning by imitation is a classic approach in pedagogy. The teacher acts as a role-model and the student copies the behavior of the teacher. The method has limited value in that the procedural knowledge sometimes escapes both the teacher and the student.

At this point it seems worthwhile to note that imitation learning would be optimal. If the teacher wants the student to be on time, to complete assignments, to put in 'effort' etc. then the teacher's behaviors ought to be models of this desired academic behavior. Otherwise the student is learning 'Do as I tell you and not as I do!' Teacher intentions are probably the psychological equivalents of student efforts while teacher effectiveness is probably the functional equivalent of student learning.

I am reminded of this anecdote from a teacher working with ghetto area college students. The teacher was helping students with remedial chemistry. In the process he used the decimal equivalent of the fraction 1/2. One brave student raised his hand to ask: "Is the dot-5 the same thing as the 1-bar-2?" Apparently he wasn't the only one with such a 'difficulty'. It certainly would be discouraging for us in Cegep to hear such remarks. However, it remains that our interpersonal relations, and attitudes about teaching, should make it possible for such spontaneous questions to occur.

2. Verbal Instruction and Learning

Learning by imitating doesn't teach comprehension and yet we test students on comprehension. Verbal instruction provides more opportunities to teach comprehension. However, what the teacher thinks he is saying and what the students actually think the teacher said are not one and the same. The active information extraction process codes and assimilates differently depending on whether we are sending or receiving the message. One's motives, needs and experience act upon the information in an effort to make it 'fit' with existing knowledge. That is, it is easier to accommodate than it is to assimilate.

This anecdote about a former professor testifies to this. I once had an Economics professor who, while defending his doctoral dissertation, became inhibited on the very first question from the outside examiner. The teacher's perception was that the examiner was 'out to get him'. As the examiner progressed with his questions the teacher became more convinced that the examiner was trying to catch him. The results were disastrous. He was asked to wait the mandatory six months and to re-convene for a second and final oral defense. As part of the preparation for that second defense the teacher's advisor explained that to everyone on the committee the examiner, in progressing from the general to the specific, was trying to find some concrete or tangible manifestation of understanding in the candidate. The intent, as is supposedly the habit of examiners, is then to use a judicious set of strategic questions to bring the candidate back to the original question. For sure the candidate, providing he does finally answer, will loose some marks for this digression, but never enough to fail an oral defense of one's dissertation.

A final, and more humorous, example is the case of a casual meeting with some kindergarten age children and their teacher during a pre-Christmas pageant rehearsal. The phenomenon of selective attention isn't always clearly perceivable. We usually ignore it ourselves when it does occur. We asked the teacher to tape record the lines children were learning to sing. Amazingly the teacher discovered that in her efforts to teach and to monitor performance she had inadvertently encouraged students not to sing: "La Sainte Vierge" but rather "La sainte verge". The concept of 'vierge' was probably lacking in these children, and rather than ask what it meant they just made a quick change to a familiar word.

What we think we are teaching and what students are learning are not similar - unless we actively monitor through the most fundamental of pedagogical mediums: verbal instruction. The suggestion is not to ask students for information but to call upon them to actively produce the information that is required. An excellent summary of these procedures is described in an unpretentious little book by Hyman (1979) titled: Strategic Questioning.

3. Trial-and-Error Learning

Trial-and-error learning has its merits since the motives of curiosity, manipulation and especially of 'discovery' are powerful agents for change. However there are two major problems with, for example, Montessori or Summerhill approaches to teaching and learning. The environment must have a continuous source of appropriate physical and human resources to act as stimuli and the temporal constraints must be kept to a minimum. We can have neither in Cegep. We can't afford classes with groups of 10 to 12 students and we don't have the time to spend weeks learning concepts. Our measurement and evaluation system is based on essentially two elements: power and time. Trial-and-error learning favors neither quality nor quantity.

4. More on Shaping and Learning

Shaping has been discussed in the opening paragraph of this section. We may add these comments to facilitate understanding of 'shaping' academic behaviors. First, the student and the teacher ought to work together to define the academic target behavior. This behavior, in addition to being within the student's range of abilities, must relate to responses that should occur naturally. This means that if the student has problems completing reading assignments either the target behavior - increasing reading rate and comprehension - or naturally occurring behavior - reading to learn - are at fault.

If the student complains that he or she doesn't like to read this points to an inhibition of some type and the work is best left to the psychologist or academic counsellor. Teachers cannot be expected to deal with dispositional aversions to learning. There is a limit and a difference between a faulty learning attitude and the absence of a learning attitude.

An excellent source on helping the student and teacher to work together to quickly identify sources of strengths and weaknesses about reading is in Appendix II of Robinson's (1970) original SQ3R - Effective Study method. It allows students to report on vocabulary, reading speed, comprehension, reading tables and figures, interpreting statements etc.

A final note about shaping. The student's performance is maximized to the extent that the 'reinforcer' is given immediately after the correct approximation has been made to the target behavior. In educational psychology this means that knowledge of results [i.e. feedback] about the performance should be available for the next class or student-teacher appointment.

5. Guidance or 'forcing' and Learning

Requiring the student to repeat exercises or to re-submit work

that is inadequate, without the benefit of an interpersonal exchange between teacher and student, forces the student towards a target behavior in order to avoid or escape unpleasant consequences [i.e. teacher's depreciatory remarks, fear of subjective grading by the teacher, etc.]. The issue of 'guidance', as used in this report, refers to the influences of reinforcers and punishment. A reinforcer increases behavior while a punisher decreases it. A positive reinforcer means that it increases desirable behavior while a negative reinforcer means that it increases undesirable behavior.

The central question is: On whose perception are we relying. The teacher may be using the behavior, mentioned above, thinking it is a positive behavior while the student perceives it as a punishment. Unless the two can agree on the role of reinforcement, differences in perception are bound to occur. If the teacher's intent is to have the student acquire desired behaviors and the student perceives these efforts as some sort of punishment, then the student is quite likely to want to escape the situation and eventually to avoid anything related with this unpleasant situation (Reiter and DeVellis, 1976). That is, the student may generalize his negative emotional categorization to include avoiding anything related with the teacher, the course, or the discipline. This contributes to understanding why some students have developed 'blocks' to learning in some disciplines.

6. Threats, Promises and Learning

Coaxing students into target behaviors by using extrinsic positive or negative reinforcers only contributes to making them dependent upon those reinforcers. As soon as the reinforcers are removed the behavior stops. The laws of learning by simple contiguity and association are powerful for the acquisition and the extinction of responses. The student learns quickly to identify which behaviors the teacher wants and to provide mechanical responses. However, if the teacher's reinforcement behavior is punitive or inadequate then the student also learns quickly to avoid or escape the situation and the teacher.

The most manipulative promise by teachers is to want 'to be friends' with students. 'Friendly' advice in an informal conversation, so teachers think, is likely to help the student to realize that the teacher has an intrinsic interest in the student. The advice, from the student's point of view, was unsolicited and therefore is manipulative. The teacher wants the student to change. When the student's efforts at change aren't in keeping with the goals, processes and expectations of the teacher then the student is blamed. Of course, manipulative students may then comment: "But I thought you were my friend!" Teachers must make promises sparingly and keep them at all costs. Make no threats. Such coercive teacher behavior relies on an abusive and undue reliance on professional status. The

student has no such equivalence and he resents it.

7. Lowering Constraints

The best strategy for helping students become receptive to formative feedback is to lower restraints and to provide verbal instruction in the context of a 'shaping' process. The teacher begins by requiring behaviors which he is certain are in the student's repertoire, provides formative feedback about their use, encourages the student to try a very small increase; engages in more formative feedback and verbal instruction etc. This process is called 'shaping' and has been used to help clients in cognitive restructuring therapy. The 'trick' in giving verbal instruction is [1] to admit, identify and present the situation as a problem which can be manipulated; [2] to avoid the concept of guilt-finding, or adopting a winner / loser strategy; [3] for students and teachers to work together to solve the problem and [4] to arrive at a compromise that must satisfy the student and the teacher. The process requires that the teacher put his feeling into the words he uses and avoid the 'silent curriculum' [metacommunication and double-bind communication]; Also the teacher needs to avoid the 'broken record' approach which refers to the difference between 'assertiveness' skill and nagging or bickering with he student.

If the teacher is angry then identify your emotion as such and state the objective basis for your anger. Owning up to one's negative emotions is essential in the process of dealing with frustration and anger. When the teacher is experiencing a negative emotion, the teacher should determine if the source of the unpleasantness is within oneself or in the physical and social environment. If it is in the social environment then the teacher should, in private, address the person or persons concerned. State the objective facts as the other sees them and then make a statement about your objective facts.

The teacher must be careful not to make comments about the facts as the other first presented them. Then the teacher asks the other for interpretations about what both have said. After this the teacher summarizes the facts and interpretations made by both. An agreement is reached about common points and how to solve them.

For example, a teacher once reported some negative feelings in being referred to by their family name rather than by a title or at least their Christian name. The ensuing conversation between the teacher and the student showed no such intent on the part of the student. He was merely treating the teacher with the same familiarity that he perceived the teacher to be treating students. Simply put it meant that if you call me by my first name then I'll do so for you, and if I called you by your family name with no title it's because that's the way you call upon us.

In the event that the problem shouldn't be so conveniently simple the teacher can still have recourse to a cognitive restructuring strategy while working with the student. Redefining the objectives in terms of the problems encountered sometimes shows that the desired target behavior is an ideal and not a goal. Sometimes both the student and the teacher will realize that working to get a passing grade is a more appropriate a goal than getting 'a good grade'. The student isn't as motivated by the subject as the teacher is. Sometimes talking about this brings the student and the teacher closer together. The student is more at ease to talk with the teacher if the teacher shows some insights into the differences between goals and ideals.

Summary and Conclusions

We began this chapter with two long quotes on 'premature instruction' and 'validating instructional processes' to show that teachers all too often 'jump into' their topics and start off without 'warming up' their classes. A quick review at the beginning of class of what has been given and a glimpse ahead of what is to be expected seems necessary.

The section on premature instruction argues that there is a fundamental difference between teaching declarative knowledge and assuming students will generalize the procedure, which has been used to teach it, to other related instances. We used the example of an isosceles trapezoid to demonstrate that a pedagogy stressing more the procedural aspects than the declarative aspects would probably contribute to achieving this goal. The assumption is that knowing when and where to use something is probably just as important as knowing what to use.

The subsection on validated instruction specifically asks teachers to reflect on how they come to know how well they are doing in class. Formative feedback to teachers, as Geis explains, means the same as for students. We need to be involved before, during and after instruction. Using the same notes from last year's lectures, which implies the same style of delivery [reading to students], means the teacher is overemphasizing the 'before' and ignoring the 'during' and 'after' parts of instruction.

Formative feeback means improving performance by guiding it with continous constructive comments. We exposed in some length that the task value, the improvement ratios and history of success for feedback, and the role of competing alternative

choices operate to influence the efficiency of the feedback.

The cognitive restructuring of expectations involving feedback is supported with references to experimental results. The final section argues on the merits of adopting certain strategies to elicit the cooperation of students to receive formative feedback.

Formative feedback helps us to know where we are by monitoring where we intend going and where we have been. It draws upon an analysis of where we were to explain how we got where we are. Confident in this knowledge, we can more comfortably understand our behavior to more accurately predict and control our future behaviors. This line of reasoning has been applied to better understand the process which leads some students to abandon and fail and how we can analyze the situation to more reasonably avoid this turn of events.

Chapter 6

EXPECTATIONS FOR STUDENT REMEDIAL SERVICES AND STUDY SKILLS

Introduction

McLeish (1968) reports that the lecture method is not particularly effective. He asked students to make directed efforts to note and remember the lectures he was about to make since they would be expected to recall them at later times. Students failed at this task.

McLeish probably made two false assumptions about student motivations, which we have discussed, and about student study skills, to which we will shortly turn our attention. He may have assumed that these Oxford University students were motivated and possessed the necessary study skills - both of which he never tested. A brief examination of the 'top' universities will reveal that they also have remedial seminars, workshops, counselors etc. which points to the fact that even the 'best and brightest' students have the need for counselling to better their study skills.

Special Remedial Services

"High risk students in higher education are identified as being marginally qualified to enter and persist. These students are handicapped with low high school grades, poor study habits, low aptitude scores and little ambition to meet academic requirements (Thompson, 1976)" One might be tempted to think that the solution is special remedial services. The efficiency and success of remedial services has a strong parallel to the case we presented by McConnell on expectations. Moore (1976) reports that:

> ...remedial instruction and therapeutic counselling - are often inappropriate and ineffective. As corrections for the problem, Moore recommends an emphasis on community college teacher preparation, institutional reexamination of selection and admissions

procedures, increased faculty advising of high-risk students, and increased policy flexibility (Abstract)

In a follow up study Campbell reports that Monroe community college dropped its remedial program after a five year trial period. A survey of other institutions showed that 48% of the remedial or developmental program gave students credit towards their degree. The critical question then is one of the validity of the college degree if remedial courses are counted towards the obtention of the diploma.

As to our own Cegep efforts, Woodruff and Kerwin-Boudreau (1980) report: "No consistent group differences were found between control groups and "...students who received more than seven hours of tutoring in the learning centre...". This concurs very well with Saint Lawrence teachers efforts in Chemistry, Mathematics and English. Much devoted teacher volunteer work with elaborate cognitive strategies didn't work because no credit was given.

Perhaps the problem is related to motivation. What motivates students to enter, to move from one session to the next and eventually to graduate may change and require substantially different approaches. Some students are extrinsically motivated while others are intrinsically motivated, and as we suggest, perhaps as a function of the strategy they evolve to deal with the changes from teacher to teacher and course to course.

Reciprocity

There is a flagrant absence of policy regarding the procedures which govern the student-teacher relationship. Each teacher is a 'little god' in his or her own classroom. The accountability they have to parents and administrators is somewhat perverted. We are all perfect and whosoever would hold us accountable for our acts must bear the weight for proving that we were not right. 'Innocent until proven guilty' might be fine for a court of law, but in a classroom you either apply this principle both ways or not at all. If teachers are perfect until proven otherwise then we have no right to expect any the less of our students. Either we submit ourselves to the same rules and regulations as we expect from our students or we have them live by ours. If we want remedial education for them, then it seems reasonably suggestible that we start exposing ourselves to regular, objective teacher and course evaluation. That reality will be too stressing for many of our professors. Our well-intentioned student evaluations don't do students any the better either!

How many teachers will be courageous enough to want to find out just how students feel about taking exams that have been copied from manuals which accompany textbooks! How about finding out how much students appreciate being read the book by the teacher. Then again, how about those 'class activities' that are a disguise for a lack of class preparation, organization and delivery? If you take the time to talk with students you can make a very interesting list of academic achievement expectations they have but for which there is no teacher remedial workshop.

On an objective basis we attempted to uncover informal proof for the conjecture that special remedial services are not related to academic persistence and achievement. We hypothesized that a significant degree of correlation ought to exist between the number of remedial services offered and the ratio of the number of students entering, and the number of students returning to those institutions [discounting transfers]. We relied on the listings of two year institutions in the Handbook of American Colleges. The following criteria were used to retain the 144 institutions on which the analysis is based: Two year, public, junior or technical colleges with open admissions, enrollments of less than 10,000, with freshman in the 18-20 year-old range, and offering remedial services.

TABLE 4. SPECIAL REMEDIAL SERVICES & ACADEMIC PERSISTENCE

# of Institutions:		Description of Special Remedial Service:
6	4.16%	Offer only one of the six basic SRS
6	4.16%	Offer two of the six basic SRS
17	11.81%	Offer three of the six basic SRS
54	37.50%	Offer four of the six basic SRS
38	26.39%	Offer five of the six basic SRS
23	15.98%	Offer all of the six basic SRS
SPECIALS:		
1	0.69%	Learning disabilities
10	6.94%	Testing of Basic Skills for placement and counselling.
6	4.17%	Communication workshops, classes, seminars etc. for Basic Skills
4	2.78%	Developmental approach to basic skills
2	1.39%	Special prep. sessions in school year.
1	0.69%	Testing and behavior coaching.

Nearly 1 of every six colleges (16.16%) offered some sort of additional special remedial service. Many of the remedial programs relied on pedagogical variations which were part of the problem students were experiencing. Testing basic skills for placement and counselling may reveal the candidate's strengths but it also is limited by the genetic endowment and environmental

milieu of the person. Events and situations have a significant interplay with genetic endowment. Some persons may rise to their optimum level from genetic endowment, while others rise because events /or situations come to bear upon him or her. While it is true that time may bring the three elements into some fortuitous harmony, it is precisely time that works against students. Eventually they may all succeed but in how much time? If our courses were self-paced then students could all eventually "graduate". However, what does one do while waiting? What are the prospects for launching oneself on the labor market when one is in his early fifties? This may seem impossible but a cursory examination of the average age of the student populations in the College Handbook reveals many within the 27 to 34 years of age range! Let us hope that these are people taking refresher courses or training for a second career.

Student Study Skills

Since Rosenthal and Jacobson's famous "Pygmalion in the Classroom" (1968), there isn't a teacher worthy of the title who hasn't at least silently stopped to reflect on how her expectations influences her teaching. Meichenbaum, Bowers and Ross (1969) report that teacher expectancy effects are due principally to changes in the affective contacts between themselves and students. And, as we may recall with the Cooper (1983) study, teacher interaction time with and quantity of feedback to students are influenced by teacher expectations. This in turn influences student learning (Wang and Weisstein, 1980). Making explicit our expectations about student study skills ought to help break this circular process that feeds on itself. As Conger and Mullen (1981) suggest, we need to make students change from "...unconscious incompetence to conscious incompetence to conscious competence to unconscious competence."

Quaintance (1976) proposes that the essential of getting students to go through this process is to get them to: Examine their motivation, translate, assimilate, correlate, evaluate, appreciate and communicate. These are presented later.

Under *motivation*, Quaintance proposes a structured experience to get students in touch with their own motivation and values. To accomplish this the outline is as follows:

1. What is a value?
    1.1 prized
    1.2 freely and willfully chosen from alternatives
    1.3 publicly affirmed
    1.4 manifested repeatedly in ones behavior

2. Ask students to make a list of the "four or five most important things" right now in their life. Be certain to rank them from most to least.

3. Explain how you have gotten these values

4. Explain how you plan to acquire those you don't have

5. What persons, events, situations and personal actions have contributed to the success or failure in the attainment of the values?

6. Ask them to list what they did yesterday to help them keep or get the values listed.

7. Now, get the students to reflect upon the following:
   7.1 What do you want out of life?
   7.2 Are your efforts and abilities being used to get or keep what you want out of life?
   7.3 What do you consider to be your outstanding asset?
   7.4 What do you consider to be your outstanding liability?
   7.5 How does education, attending Cegep, and studying contribute to the attainment of what you want out of life?
   7.6 What happens if you don't meet your life goals?
8. Identify three actions that you need to do right now to meet your life goals.

"Translate" means to ask students to take the time to think about the associated versus the defining characteristics and the affective versus cognitive categorization processes they engage in to process information.

Assimilation refers to note-taking skills, outlining and studying. This list may be as long as you care to make it. Biemiller (1981) presents this list of the skills students need to perform well in college.

Reading Competencies:

Writing Competencies:

Speaking and Listening Competencies:

Mathematical Competencies:

Reasoning Competencies

Studying Competencies: This set of abilities is different in kind from those which precede it. They are set forth here because they constitute the key abilities in learning how to learn. Successful study skills are necessary for acquiring the other five competencies as well as for achieving the desired

outcomes. Students are unlikely to be efficient in any part of their work without them.

One further difference must be expressed: Activities related to acquiring the basic studying competencies will fail unless students bear in mind the role of their attitude in the learning process. That attitude should encompass a sense of personal responsibility for ones own progress [1]; a desire to make full use of the teacher as a resource [2], and a willingness to conduct themselves in ways that make learning possible for their classmates as well as themselves [3].

....The ability to accept constructive criticism and learn from it [6].

Correlation means helping the student determine when it is more important to know the 'who, what, where, when, why and how' of what is said. There is an abundance of materials on how to listen, how to take notes etc. on the market - both in the French and English languages. Some of the most remarkable that we have examined are by Brown (1977) on how to take notes; Hyman (1979) on how to ask questions; Rowntree (1976) on how to check your motives to study; Robinson (1970) on the diagnosis of your academic weaknesses; Carman & Adams (1984) on study skills in general; and Dobbin (1984) on test taking behaviors.

Evaluation means that the student goes through a receptive and passive phase by attending classes, taking notes etc. and a productive and active phase when he organizes and attempts to make sense out of what he has noted in the receptive phase. This is the crucial phase in which teacher can help students.

Appreciation deals with the development of thought and writing. The methods of topic sentence development are discussed. This deals also with test taking and research paper writing.

Developing Student Strategies for Study Skills

Teachers cannot satisfy all of the needs of every student. Each teacher has some aspect of competencies listed by Biemiller. Students can develop some of thess skills by observing their teachers. Such a suggestion is a reasonable and realistic interpretation of the suggestion proposed by the College Outcome Measures Project.

To be motivated to learn, students need to be convinced that the learning activities are exciting and will

result in knowledge and skills they think are important. Further, they need to be convinced that the general education program has been built with their welfare in mind - i.e. that it is designed to meet their specific individual needs. This special communication effort is needed because students are, we believe, the most neglected audience among the various participants in general education. Therefore, special attention to the student segment will improve an institution's overall effort to build a better case for its general education program (Forrest, 1982; p5)

Metacognitive Monitoring

While there are many materials available to help us learn about the skills necessary to become proficient in learning (Anderson,1981; 1982) it remains that students must learn procedural knowledge [when, where and how to ask] in order to be efficient in declarative knowledge [knowing what]. Flavell (1977, 1979, 1981) proposes a new field 'metacognitive monitoring', based on the process of gathering information. Knowing what resources one has and needs, strategies for obtaining what one needs, developing a timetable, sequencing events, developing hierarchies of sub skills into skills, and deciding what sources of feedback, are such appropriate behaviors conducive to academic achievement. Also, they help students discover who they are and thus contribute to their self-concept. My specific intention is to show that metacognitive monitoring of educational life skills would do much to help students establish the kind of relationship that is needed for them to solicit feedback from the persons most appropriate to doing it - teachers.

Cross (1979) maintains that high risk students, or "New Students", admitted to colleges because of an "open-door" policy, and who would not have been there otherwise, are failing and abandoning. Such a policy pushes all students towards academic achievement and may, it is feared, lower the quality of education.

One may be tempted to argue that the supply and demand of the labor market would affect the quality of admissions. In a tight market, where labor is needed, the students might be tempted to work instead of attending college and in a relaxed market, where labor is not much in demand, the students may flock to institutions of learning. This would seem to be true for all types of students. However we are talking here about community colleges and not four-year colleges or universities. The difference is that in university or four year colleges the

student expects to commit himself to the four years of study. Those not admitted or not able to invest four years or wanting a professional course enroll in the community colleges.

The Quebec Cegep system has one major difference. All students must attend Cegep for either professional or pre-university training. An underlying principle in establishing the Cegep network was to help prepare students for the specialized university programs.

Bloom (1976) has convincingly argued for the existence of affective and cognitive entry characteristics which operate, in students, as expectations about learning and their learning experience.

> Mastery learning is based on feedback which relies on motivation and correcting learning difficulties. With the use of formative tests about four times as many students can profit from mastery learning (page 5).
>
> ...(There are) individual differences in learning versus individual differences in learners ...The first is possible the second is too vast. Such individual differences in learning are related to the person and to the interaction with the human and physical resources of his environment (page 8).

Such problems are not unique to our students. The British and the French have suggested similar strategies in attempts to cope with similar problems.

> Le Game [Groupe pour l'Amelioration des Methodes d'Enseignement] a pour but d'apprendre a etudier a des eleves en difficulte en leur proposant une technologie de l'etude, basee sur une comprehension de leurs problemes specifiques.
>
> Cette technologie a pour principe majeur de debloquer l'action pour debloquer la creation.
>
> Pour le Game il n'y a pas d'eleves paresseux, oisifs, incapables, mais seulement des eleves qui n'ont pas appris a etudier, qui n'ont pas decouvert le sens de ce qu'ils etudient ou tout simplement qui ne savent pas s'y prendre (G.A.M.E., 1982; p43).

Gibbs et al. (1979) make this statement about their progress in England:

> Five explanations for students not learning effectively are examined for their soundness, support from research evidence, and implications for attempts to improve students as learners. Explanations examined are these:

(1) students lack the necessary study skills; (2) students are of different types, and some student types have limited learning approaches; (3) students choose their approaches to studying, some of which are ineffective or inappropriate; (4) students develop in their sophistication as learners and some are less developed than others ; and (5) students are held back in their learning. In conclusion a case is argued for facilitating the development of students' conceptions of the learning process, awareness of the nature and purposes of study tasks, and autonomous flexibility in adopting approaches appropriate to particular contexts. It is further suggested that practical attempts be set within the context of the realities of inadequate curricula, disparate student motivations, and the knowledge that students fit studying into existing life-styles and values.

Finally, a strategy for teaching students to learn to think critically, within a problem-solving approach, has been stated, explicitly for this purpose, by Wade and Tavris (1987).

1. Define the problem to be resolved or the question you are investigating.

2. Form a tentative hypothesis.

3. Examine all the evidence available.

4. Analyze assumptions.

5. Avoid oversimplification.

6. Be careful about drawing conclusions.

7. Consider alternative interpretations.

8. Recognize the implications of research.

In step 1 if the student has problems formulating the difficulty as a question or problem statement then it probably would be beneficial to have the student reflect upon her expectations. Has the student in the past been told what to do as opposed to being encouraged to think about alternative behaviors? The answers to this question usually have much to do with causality, responsibility and productivity - all at the very core of any change strategy.

Step 2 prompts the student to feel that some control is possible for her role in learning to learn. At this point the student and the teacher can set some goals towards which the student can work. The nature and frequency of the reinforcement can also be set at this time. For example, if the student feels

that her grades for essays are inadequate then the student is asked to point out a paragraph that they found to be particulary 'good'. The teacher can then ask the student questions and encourage him or her to make necessary corrections. The following step is for the student to choose another paragraph, make necessary changes and to re-submit it for evaluation. Conscious of the additional time required for this, teachers can share this expectation with students and suggest that in the future an occasional paragraph can be corrected before the assignment is handed in. The formative feedback operates as a motivator and will likely increase the student's behavior to learn how to learn. The savings the teacher will make in correcting assignments will compensate for the additional time invested before officially receiving the assignment.

In step 3 the student is encouraged to generalize the formative feedback received as part of step 2. The student is encouraged to think about other areas of academic difficulty that the teacher may help them with. Of course the necessary condition or expectation is clearly stated and reinforced by the teacher: The student must be willing to make an active effort to identify and profit from the feedback. It is in this context that the 'warmness, genuineness and authenticity' of the teacher play a major affective [supportive] role.

The student and teachers, in attempting to understand how the student may learn to learn, communicate, in step 4, their assumptions about their expectations. The material developed in this chapter are suited to meeting this behavioral target.

The oversimplifications in step 5, as one recognizes, are the complaints, criticisms and other social defenses that the student has learned to use to defend against anxiety, guilt, shame etc., and which the teacher has been unwittingly reinforcing.

In step 6 the student and teacher are to concentrate on admitting their feelings to each other about efforts at learning and teaching to learn. The teacher learns to say: "I'm upset that you didn't come prepared for this assignment," rather than the "That's a dumb thing to have done!" The student is encouraged to express his feelings about the stress and fears of inadequacy vis-a-vis the assignment, teacher etc.

In step 7 the teacher helps the student to focus on alternative interpretations for their expressed states of 'stress' and 'learned helplessness'. The focus is on what has been done to lead to the present state of affairs and how changes in current behavior could produce different outcomes. This leads back to step 2, in which goals are re-examined.

In the final step the teacher and the student are asked to consider the adequacy of the consequences and outcomes for behavioral changes. Having focused on the process ['how'

questions] will inevitably lead the student to reflect on 'why' he or she wants to attain these goals. In that instant the student is forced to find the meaningfulness from within herself. Teacher intervention does not focus on such content. The student is left to feel for herself the responsibility of the control they have learned to use. Learning to learn is a student and teacher goal. What to learn is the student's goal and how to be more productive in achieving that goal is the teacher's goal.

Summary and Conclusions

The trend has been over the past decade to offer more and varied 'special' remedial services. The untested assumption is that student difficulties in cognitive development are remedied through study skills and therapeutic counseling. While we may agree, in this chapter, that the means must be cognitive we argue that the content should be affective. Teachers should be more responsive as to how their expectations about student success are being communicated to students.

In order to avoid the very trap we are telling teachers to avoid, and at the same time to show how to communicate one's expectations, we have presented a scheme orginally developed by Quaintance. The essential feature is to focus on motivation as a part of a larger and more important message in communicating to students our expectations for learning to learn. The features of this approach have included references on proven materials for students to acquire study skills.

We recognize that citing examples and supporting references is not suitable proof. We offered the 'metacognitive monitoring' model as a suitable theoretical framework to support our propositions. The essential feature is that underprepared or 'high risk' students have stronger affective than cognitive entry characteristics when they enroll in Cegep. The proof of this has rested on an appeal to expert authority. The reader was referred to two scholarly works [Cross,1979 and Bloom,1976] which have summarized the research to support this theory. This section of the report closed with some evidence to suggest that the French and the British have arrived at similar conclusions to deal with their abandon and failure problems.

The chapter closes with a series of questions about how to teach students to use problem-solving techniques to think critically. The material is particulatly worthy for consideration because it reflects a 'how' rather than a 'why' kind of attitude to learning to learn. The steps suggested by

Wade and Tavris necessitate an interpersonal relations context for an active and interactive exchange of information about how to learn.

Chapter 7

RESULTS OF A STUDY ON COGNITIVE RESTRUCTURING OF EXPECTATIONS IN A COLLEGE AND RESULTS IN STUDENT ABANDON AND FAILURE BEHAVIORS.

Design for the Collection and Analysis of Data

The data were derived from the dossiers of students over an eight year period [1976 - 1984] at Saint-Lawrence Campus of Champlain Regional College. This data, academic persistence [number of abandons] and the academic achievement [number passing] of students over that period was divided into two periods: Those students and teachers in the 1976 - 1980 period and those in the 1981 to 1984 period. The critical Fall, 1980 semester was used as a cut-off point because at that time efforts by one third of the professors on staff, were made to introduce changes into their way of thinking about student abandons and failures.

We planned achievement of two groups of students between these two periods of time and for two groups of students. Students in period one either had been enrolled in classes with professors who volunteered to try out different ways of thinking about failures and abandons [the 'experimental' group], or they enrolled with professors who did not volunteer [the 'control group']. Additionally one group of students, from those for each professor volunteering, had been randomly chosen to act as a control group ['half-control' group] to measure individual variations of each professor [experience, discipline etc.]. A "Multiple-Time series" (Campbell and Stanley, 1963) design with appropriate statistical procedures (Maracuilo and McSweeney, 1977) was used to analyze the data (See Table 5.).

Data were collected and transformed into the following format for computer processing. The entries were as follow: columns 1-3=Case number; columns 5-6=Block number; 8-10=class average; 12-13=number of students passing; 15-16=number of students failing; 18-19=number of students abandoning; 21-22=total number of students. There were 1,327 valid cases. Block numbers were identified as 13='PreX'[the pre-treatment period of the experimental group], 14='X' [the treatment period of the experimental group], 15='PosX' [the post-treatment period of the

experimental group] and 23='PreCon'[the pre-period of the control group], 24='Con' [the no treatment period of the control group] and 25='PosCon' [the post-period of the control group]. Teachers who volunteered were in the treatment ('X') groups while teachers who had not volunteered were in the control ('Con') groups.

The objective was to analyze differences between groups before and after the introduction of experimentation [the 'Pre' with the 'Pos'] as well to test assumptions about initial differences ['PreX' with 'PreCon'] and to compare changes within groups ['PreX' with 'PosX' and 'PreCon' with 'PosCon'] at the end of the experiment. For these purposes the non parametric Hierarchical logarithmic linear Model [Hiloglinear analysis] (Norusis, 1986) was retained.

TABLE 5.
DESIGN FOR THE ANALYSIS OF PERSISTENCE AND ACHIEVEMENT RATES

	EXPERIMENTAL			CONTROL		
	Abandon	Fail	Passed	Abandon	Fail	Passed
SESSION						
Fall, 1976 :						
Winter, 1977 :						
Fall, 1977 :						
Winter, 1978 :		'PreX'			'PreCon'	
Fall, 1978 :						
Winter, 1979 :						
Fall, 1979 :						
Winter, 1980 :						
Fall, 1980 :		'X'			'Con'	
Winter,1981 :						
Fall, 1981 :						
Winter,1982 :						
Fall, 1982 :		'PosX'			'PosCon'	
Winter, 1983 :						
Fall, 1983 :						
Winter, 1984 :						

Analysis of Data

Let us agree at the outset on one thing: No statistical technique can ever cover up for a weak design. There are very real restrictions placed on those who would like to draw scientific inferences about causation while doing educational research. We just can't get the ideal conditions. At best our design allows us only to make correlative interpretations. The Hiloglinear model tests for significance of interactions and independence and thus makes it possible for us to make

inferential statements about global 'block' effects. That is, to test the combinational effects of 'Pre' vs 'Pos' and 'X' vs 'Con' but not to make statements about underlying changes to explain such significances.

Testing the Null Hypothesis that Nothing Happened

Pillais, Hotellings and Wilks Lambda statistics, listed in Table 6: 'Multivariate Tests of Significance', test the hypothesis that there are no significant differences between the number of students passing ['nopass'], failing ['nofail'], or abandoning ['noabd']. Results suggest that there is a significant difference between all three variables.

TABLE 6: MULTIVARIATE TESTS OF SIGNIFICANCE FOR NUMBER OF ABANDONS, FAILURES AND PASSING.

Multivariate Tests of Significance (S=3, M=1/2, N=657):

Test Name	Value	Approx.F	Hypoth.DF	Error DF	Sig.of F
Pillais	0.069	6.206	15.000	3954.00	0.0
Hotellings	0.072	6.298	15.000	3944.00	0.0
Wilks	0.932	6.258	15.000	3633.00	0.0
Roys	0.483				

Locating directions in changes in passing, failure or abandon rates

The Univariate F-Tests, listed in Table 7, reveals that the 'nopass' and 'noabd' but not the 'nofail' are significantly interacting when controlling for class average and size. Thus the differences between the volunteer or 'experimental' and non-volunteer or 'control' groups is one of number of abandons.

TABLE 7: UNIVARIATE F-TESTS WITH 5,318 DF.

VARIABLE:	Hypoth.SS	ErrorSS	Hypoth.MS	ErrorMS	F	Sig F
NOPASS	76.684	2393.814	15.337	1.816	8.444	0.000
NOABD	52.923	1613.686	10.584	1.224	8.645	0.000
NOFAIL	10.295	1270.170	2.059	0.964	2.137	0.059

Decreasing Abandon Rates and Increasing Passing Rates

Results from Scheffe's multiple comparison test, listed in Table 8., reveals significant decreases in the abandon rates between the Pre- and Post-Control groups (6 & 4) and by increased passing rates for those groups (4 & 6). Apparently the significant decrease in abandons and increases in passing rates in the experimental groups following experimentation in the Fall, 1980 session is better than it would have been if the experimentation had not taken place (PreCon vs PosX; 3 & 4, 4 & 3).

TABLE 8. THE SCHEFFE MULTIPLE COMPARISON TESTS.

G R O U P:	1	2	3	4	5	6
Class Average	-	-	-	-	-	-
Number Passing	-	-	4	-	-	4
Number Abandoning	6/3	-	-	6/3	6	-
Number Failing	-	-	-	-	-	-

Alpha = .05
1=PreX, 2=X, 3=PosX, 4=PreCon, 5=Con & 6=PosCon.

The Critical Question: Which Teachers Account for Changes in Abandon Rates

The results from the Hiloglinear Analysis revealed that significant differences exist in the 'PreCon' vs 'PreX' groups [See tables 9 and 10]. That is, there were significant differences in the numbers of students passing, failing or abandoning before the Fall, 1980 experimental session. The teachers who were later to volunteer initially had fewer abandons and failures than teachers who did not volunteer. A comparison between the 'PreX' and 'X' groups revealed that the teachers who volunteered reduced even more their abandon and failure rates as when compared with the 'PreCon' and 'Con' groups. However, the comparison between 'X' and 'PosX' reveals no significant differences and suggests that the volunteer teachers had 'peaked' in terms of what they could or would do for abandon and failures

rates in their courses. Interestingly enough the non-volunteer teachers who showed no significant changes in abandon and failure rates between pre-1980 ['PreCon'] and the 1980 experimental session ['Con'] showed the largest significant changes in abandon and failure rates after the experimental session ['PreCon' vs 'PosCon']

TABLE 9. HILOGLINEAR STATISTICS FOR EACH OF THE INDEPENDENT VARIABLES NOPASS, NOFAIL AND NOABD, BY CONDITION.

GROUP:	VARIABLE	N	MEAN	Std.Dev.
PreX (13)	nopass	3883	20.3855	6.220
PreX (13)	noabd	588	5.6088	3.958
PreX (13)	nofail	984	6.8415	3.294
PostX (15)	nopass	3709	22.2985	6.708
PostX (15)	noabd	357	3.8347	2.232
PostX (15)	nofail	756	7.1667	3.709
PreCon (23)	nopass	7855	19.9854	8.021
PreCon (23)	noabd	1337	5.0793	2.896
PreCon (23)	nofail	2439	8.8204	4.632
PostCon (25)	nopass	6447	21.1194	6.777
PostCon (25)	noabd	598	4.1271	2.933
PostCon (25)	nofail	1533	8.6047	4.251

TABLE 10. HILOGLINEAR ANALYSIS TO TEST INTERACTION EFFECTS.

GROUP:	NOPASS	NOABD	NOFAIL
PreX (13) vs PreCon (23):	2.96*	2.919*	14.055
PreX (13) vs PostX (15):	17.31*	8.805*	1.902
PreCon (23) vs PostCon (25):	9.164*	6.625*	1.503
PostX (15) vs PostCon (25):	8.501*	1.737	8.304*

*Significant at .01 level <t=2.576 with df approaching infinity>

Discussion

The significant results in the NOPASS [number of student passing], NOABD [number of student abandoning] and especially NOFAIL [number of students failing] between the experimental ['X'] and control ['Con'] groups [PreX (13) vs PreCon (23)] reveals the bias that already existed before any treatment effects. The outstanding difference [t=14.055] between both groups is most notable in their failure rates "NOFAIL". Thus we must at the onset agree that there were slight, but significant differences in the two groups, experimental [PreX] or control [PreCon], before the Fall 1980 session. There was a difference in the number of failures, much more than we could accept on the basis of chance, between the two groups at that time.

Significant increases in NOPASS and significant decreases in NOABD are shown to operate between the pre- and post-1980 sessions for the experimental [PreX (13) vs PostX (15)] groups. More were passing and fewer were abandoning in the experimental groups with the number failing remaining relatively unchanged. The control groups [PreCon (23) vs PostCon (25)] in the pre-1980 and post-1980 sessions showed significant increases in NOPASS and decreases in NOABD with no change in NOFAIL. Fewer were abandoning and more were passing in the control group between the pre-1980 and post-1980 comparisons.

The significant improvement in NOPASS [8.501] in the post-experimental and post-control groups [PostX (15) vs PostCon (25)] reveals that there is still a large difference in the numbers of students passing, in favor of more for the experimental group. However, the significant difference [2.919] that was initially present between the experimental and control groups [PreX (13) vs PreCon (23)] has disappeared [1.737 in PostX (15) vs PostCon (25)]. One may note also the relative "improvement" [8.304 vs 14.055] between the experimental and control groups before and after the 1980 session. Apparently the control group is still very different from the experimental group with indications, however, that the control group has significantly "improved" by almost halving this difference. Thus one may speak of a 100% improvement in abandon rates in the group of students with professors who did not volunteer for the 'experiment'.

The internal validity of such a design clearly warrant much caution in interpreting results. Such threats as diffusion or contamination from the experimental to the control groups, especially from the experimental to the half-control groups, are quite possible in such a small cegep. The opportunity for

students participating in the study to share perceptions about attributions, which we have shown likely to be operative, with other students in the control groups is very strong and uncontrollable.

Selection bias is quite possible since some students are not without knowing that some professors and courses are "tougher" than others. The students so informed could then choose courses and professors to minimize such risks.

The last students to register, or who register without such knowledge may sign up for courses and professors which makes it easier for them to fail than if they had had other choices for professors and courses. Also, there is the problem of obligatory courses.

In any event one would be wise to interpret these results as suggestive, provocative, interesting and definitely speculative rather than scientific.

Now, are these results due to the fact that what students learned with volunteer teachers was transferred to the non-volunteer teachers, or is it that non-volunteer teachers imitated or modeled the behavior of volunteer teachers. Of course it is possible that both occurred, or neither and that some third rival hypothesis accounted for this change.

Teachers may behave to draw students to their courses [teacher invitation behaviors], or the teacher's knowledge in a given course may draw students [teacher effectiveness behaviors]. To test this idea a factor analytic study of teacher invitation and effectiveness behaviors studied four clusters of students, each in a different subject, and all with the same teacher. Students were asked to complete, anonymously, a validated teacher evaluation questionnaire (Inglis, 1978). The idea was to test the hypothesis that teacher invitation and effectiveness behaviors, which we have argued in this report are an important element in student approach behaviors, relate to student perceptions for persistence and achievement.

Results of the rotated factor analytic study of teacher invitation and expectation behaviors, reveals that nearly two-thirds of students (66.2%) report that some type of Special Remedial Service ('SRS') (36.5%) should be the concern of teachers and students. A popular expectation amongst teachers is that students lack some sense of responsibility or sense of control (Internal or External Locus of Control ['IELC']). This is directly contradicted by what students report about themselves. The second most important factor (13.6%) relates directly to the student's willingness to assume the responsibility associated with doing special remedial service work. The third and fourth factors (ProKno [9.7%] and StExpBeh [6.4%]) reveals that students lack the procedural knowledge for

carrying out these behaviors and expect that the teacher should offer the advice. It is particularly noteworthy that when one examines the questions associated with factor 1 [SRS], the questions that weigh the most (highest eigen value vectors) relate to 'TeaAffBh' or simply the teacher's affective behaviors. The underlying variables, apparently, for the student to approach, to accept and to participate in remedial education relate to her perception of the student-teacher relationship.

Chapter 8

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Our interviews with teachers, administrators and students supports a change in student attributions from situational to dispositional as a function of teachers giving feedback. We have become much more cognizant of the abandon and failure problem theoretically. Teachers, in one way or another, have reflected on their awareness of changes in the administration and their own behavior to explain that we have curtailed student abandons and failures. The one major commonality has been for teachers to take more time to talk with the student who has expressed the idea of abandoning a course. Many of the teachers, intentionally or not, have used verbal instruction to examine with the student if the academic behavior is dispositional or situational and temporary. The efforts at Saint-Lawrence, according to a content analysis of the interview responses, is for teachers to have used cognitive restructuring by verbally instructing students on other ways of perceiving the situation or problem.

A reduction in abandons is not surprising given that the administration has implemented a system that requires students to motivate their abandons. First the student obtains an abandon request form from the administration. Then the student must contact the teacher and discuss it with him or her. The teacher is asked to co-sign the abandon request form, in recognition that this discussion had indeed taken place. The student then sees either the Assistant to the Academic Dean, the Dean, or the Counselor to discuss his intention to abandon. At this time, the implications for meeting the program requirements, eventual career choices etc. are discussed with the student. Unless there are major life crises, the student is not recommended to abandon more than two courses in any one session. One thing is very clear, this process doesn't exist to discourage students through 'red tape' and paper work. It exists to realign student perceptions with expectations for academic outcome. That is, how does the student reconcile his immediate and short-term expectancies with his career plans?

The administration and teachers work closely together. Teachers are asked to contact the administration about excessive absenteeism, to refer students to the counselor if the student shows poor study attitudes etc. What the process has done is to force teachers to make a commitment to the affective aspects of their teaching. Teachers are available and flexible - apparently much to the benefit of students. It's fairly common for a student who does abandon to come by to thank the teacher for his effort.

Report on the Content Analysis of interviews with Students, Teachers and Administrators at Saint Lawrence

The content analysis of interview results with teachers, administrators and students at Saint Lawrence is clearly points to this fact: There are underprepared 'high risk' students and there are students who lack ability and/or motivation. Our active efforts have been towards the first of these three groups. The others are referred for counselling. We have identified the following characteristics of the 'high risk' Cegep student with whom we can work.

1. Lack of ability: The student does not appear at this time to be able to function at the formal level of mental operations [i.e. Piaget's 'formal operations' stage of cognitive development]. The student may perform functional analyses between concrete concepts but fails to do so with abstract concepts. The student lacks appropriate development in language usage. The student's vocabulary, grammatical usage and expository writing are fixated at some earlier and inappropriate level of cognitive development.

2. Underprepared: The student lacks prerequisite training. The major problem appears to be a lack of appropriate study skill habits and failure to profit from the formative feedback offered by teachers. The student, in brief, has learned to procrastinate.

3. Unmotivated: We have discovered that the student may lack maturity, manifest learned helplessness or manipulate interpersonal relations and communications as a form of achievement style. The student relies on interpersonal relations and communications with the professor not as a means of giving and receiving formative feedback, but rather as a means of expressing his affective concerns which hopefully not only explain his behavior but also excuse it.

4. Anxious: Teachers sometimes have a negative perception of students because of their speech problems or their interpersonal anxiety.

5. Personality: Some students manifest inadequate academic self-concepts and inhibitions [e.g. "I'm no good in math! I've always had problems"] which generalize to other courses [e.g. physics]. Sometimes it is the direct opposite. Students have been led to over-estimate their academic self-concept, to the point of taking on too much work over too brief a period of time. If the student has difficulty with autonomous strivings or is caught up in the pursuit of adolescent gratifications he is referred to counselling.

6. Cognitive Style: The student fails to make a personal commitment to the pursuit of his own learning. If the student's sense of involvement is determined by others, fortuitous events, or just plain 'luck' then he is encouraged to try to find out how his behavior influences outcomes.

The list of items reported below reveal the breath and depth of topics used by teachers and administrators at St. Lawrence to help the underprepared and willing student. We have also listed the negative aspects that some teachers and students still report as needing attention. The intention of this section is to show that our Campus and the kinds of topics we used for dialoguing with the students are not so different from what other Cegeps experience. Apparently drawing students into discussions about such topics helps them to get a better picture of the environment and their place in it.

- Advising effort -

* Faculty Advisors:

1. Student is given the name, office number of an advisor who usually is also a teacher;

2. Lists of 'academic advisors' are posted and printed in school paper;

3. Teacher availability and flexibility is encouraged by administration and supported by teachers;

4. Teachers' invitation and expectation behaviors support students' effort to make contact with the teachers

* Administration:

1. Written requests to motivate abandons;

2. Interview with Dean, Associate Dean or Counselor required;

3. Contact with teachers for report on students who appear to have difficulty;

4. Absenteeism and other problems are reported by the teachers to the Dean;

5. Availability to teachers to discuss student performance record.

* Counselling:

1. Special ability testing for placement;

2. "Tips on how to succeed at Saint Lawrence" booklet.

* Learning Center:

1. Staff helps with student requests for books and A/V materials on learning skills;

2. Staff keeps teachers aware of demands for materials that are not housed in collections;

3. staff keeps teachers aware of student difficulties in comprehending the assignments.

* Orientation:

1. Library orientation;

2. Pre-registration sessions;

3. Orientation week: Social events which encourage interactions between students, teachers and administrators;

4. "Student for a day at SLC" for outside visiting students who request it.

- Career emphasis

* Career week with information about teachers' backgrounds;

* Use of college newspaper and PA system to communicate information about upcoming University visits to Campus.

* Career Day activity

- Counselling

  * Academic difficulties workshops;

  * Vocational counselling;

  * Personal counselling;

  * List of agencies and resource persons for referrals;

  * Exit interviews;

  * Early warning and follow-up;

    1. Teacher contacts with students;

    2. Teacher contacts with counselling, administration etc.;

    3. Probation practices;

    4. Absentee reports and follow-up

- General:

  * Financial aid

  * Ongoing research interest and support

  * Faculty and staff is kept informed of professional development funds, opportunities training etc.

- Co-curricular activities

  1. Sports

  2. Student council

  3. Clubs and hobbies

- Campus Characteristics:

  * Negative:

    1. No-on Campus housing facilities

    2. Not all programs are offered

    3. Academics are emphasized

4. English language proficiency required for admission. Placement tests are taken for admission.

5. High commuter to resident student ratio

6. Parking

7. Academic calendar doesn't have a one week 'break' at each mid-semester.

8. The cost of purchasing books,s supplies etc.

9. Inadequate enforcement of rules. Such as teachers requirement for the students to use one consistent method throughout all courses for doing written assignments.

10. Students are "oversold" on value of education

11. Students from local high schools sometimes enter as a group which tends to form "cliques"

12. Part-time jobs and placement are rare

13. Absence of a "meal-plan" for students who do not wish to have to prepare their own or who must find a room with board.

* Positive:

1. Campus Counselling office maintains addresses and solicits feedback from students about off-campus housing facilities and adequacies.

2. The Administrative and Office Technologies programs that are offered have modern equipment available for each student in class. These include a complete variety of computerized systems.

3. Academics are emphasized

4. Part-time faculty and not "a la lecon" teachers.

5. Transportation access is excellent to all points throughout the day/evening.

6. Self-contained modern building with air conditioning

7. Small college with small classes

8. Modern cafeteria

9. Easy to get request for summer course "commandite"

10. The class schedule, with exception of a few labs, in between 8:30AM and 5PM.

11. Student usually has a break on Tuesday and Thursdays between noon and 2PM to participate in social and cultural activities etc.

12. No classes longer than 75 minutes.

13. The availability, friendliness and caring attitude of the faculty.

14. Programs have an excellent reputation with universities and employers for producing high quality graduates.

15. The active participation in following students in their program choice and making transfers easy.

Although we can point to objective data to support a change in abandon rates with consequent increases in passing rates, the conclusion remains highly subjective. The student teacher relationship has been used as a focal point at Saint Lawrence. None of the teachers has engaged in all of the constructive behaviors between students and teachers aw we have developed in this report. What's surprising is that students were able to form a general model about procedural knowledge based on different inputs from teachers, who collectively, have covered all of these elements.

The administration deserves credit for insisting that students, who wished to abandon or were letting themselves fail, take at least a pause to discuss their expectations with teachers. It's unfortunate that this has to occur in the context of a student thinking about abandoning - but at least, according to these results, it is a step in the right direction for salvaging human potential. And, based on the interview materials, it appears that this initial contact has favored continued dialogue between student and teacher.

As teachers made efforts to provide students with feedback about the appropriateness of his desire to abandon, they also verbally instructed students about their expectations, and solicited student feedback. Students and teachers took at least a brief period of time to let down their social defenses and to empathize. This shot of authenticity and genuineness probably reminded students and teachers that they needed each other - a statement about caring. Student participation in the process of generating solutions increases their sense of control which favors student productivity and responsibility.

Recommendations

Meaningfulness is an intrinsic motive. Student and teacher attempts to find 'meaningfulness' are in turn reflected in statements about their expectations which are reflected in their thoughts, feelings and behavior. An additional intrinsic motive, as this report suggests, is the efforts students and teachers make in order to adjust to each other's expectations in the learning process. We have suggested that the student's and teacher's affective processes are probably similar. The major effort at 'interexperience', the student's and the teacher's experience of the other and how it influences teaching and learning, differs in cognitive style - especially cognitive achievement style. The teacher favors a direct style of achievement while the low achievement student favors a relational style of achievement.

Education can be made meaningful. It won't just 'happen'. It takes a lot of hard work to prepare a course, to make necessary adjustments for each course instead of following last year's lecture notes, and especially and foremost to be a person who is going to help another person in something called 'education'. Now, this doesn't mean, in psychology for example, that 'touchy-feely' kind of psychology in which one sits in a circle to contemplate one's navel. There is a course outline, there are course objectives, tests, term papers etc. The difference is that class time is used to reward students for doing the lonely task of 'studying'. Students find meaning in lectures, discussions, films, laboratories and demonstrations by discovering answers to some basic, intrinsically motivating questions. So, while students are given responsibility for their education, teachers use class time to sometimes entertain questions, to lead discussions etc. or to pose and then reflect upon motivational questions.

The following questions arise when teachers ask *themselves* how the educational environment could be made meaningful. Rather than to assume that it is the student's responsibility to learn to learn the teacher assumes the responsibility for initiating it. The following questions help us, as teachers, to identify our own motivations. These questions, and most especially the 'answers', are welcome by teachers and students. As with all things of this nature, teachers have to make the first step not by asking for student participation but by reflecting upon their own answers and their implications for their teaching.

1. Experience Motivation:[3]

   - How can studying be enjoyable?
   - How can I avoid boredom in studying?
   - What are the challenges to this kind of study?
   - What meaningful rewards may I expect for having studied?

2. Philosophical Motivation:

   - How can studying be a means to express who I am, and not what I will be?
   - Why is it always perceived to be so difficult 'to study'?
   - Is there anything else to be done with studying than to earn a grade?
   - How does studying make use of my potential?

3. Societal Motivation:

   - How does this material for study become an essential part of my program of studies?
   - How does this material to be studied lead me and others to a better life?
   - Isn't there another reason for studying than to avoid the 'bad things' that will happen if I don't study?

4. Opportunity Motivation:

   - How does my learning this help me become someone who can help or serve others?
   - How does studying contribute to making me important?
   - How can knowing this material make my life easier?
   - How does this material contribute to opportunities for growth and to gain respect?

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3. These questions have been inspired by Kazanas et al. (1975).

5. Status Motivation:

   - How does studying contribute to my other accomplishments?

   - How will studying help others recognize my potential?

   - How does studying lead to personal development?

6. Activity Motivation:

   - How can studying help me to gain control over my environment?

   - How can my activity in studying for this type of work help me to be a productive member of society?

   - How does my studying for this type of work lead me to understand the role I am to play in society?

7. Productivity Motivation:

   - How can this type of study help me to produce change?

   - How can this type of studying eventually contribute to social and economic welfare for myself, my family and society?

   - What mental and physical changes can I expect to acquire that will help me to lead a more productive life?

Teachers can substitute the word 'work' for the word 'study' to find out for themselves what motivates them. Most teachers hesitate to ask for information and even less 'for help' to teach since to do so is to admit to having something less than desirable. It's a blow to our ego. It's difficult, but necessary not to say more than we know when teaching. With all those young eager faces staring at us, with all that raw power in our hands, it's equally important not to pretend to be more than we are.

The student may be underprepared but it is not necessarily true that he is responsible for this state of affairs. Instead of asking students to change maybe we should ask them to change right along with us.

Education is a process of change. I can't see how teachers can refuse to acknowledge that necessity in themselves and yet insist on it in students. Hopefully the process you and your students share in answering these questions will help each of you to find meaning in being an 'educated' person.

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