TRYING TO TEACH,
TRYING TO LEARN:
LISTENING TO STUDENTS

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Foreword

In June 2000, Provincial Executive Council established the Subcommittee on Trying to Teach: Successor Project to oversee and facilitate a successor study to *Trying to Teach* (1993) and *Trying to Teach: Necessary Conditions* (1995). Rather than seeking input from teachers, Council wanted to record student voices, especially relating to learning conditions of junior and senior high school students. Such a study would provide in-depth and evocative portraits of students' experiences of learning. The subcommittee consisted of C D Henderson (chair), J J McCloskey, L Booi and G R Thomas (secretary). V A Bigeat served as administrative secretary.

The Association contracted Dr Hans Smits, professor, Faculty of Education, University of Calgary, to serve as principal investigator. Dr Smits used surveys and interviews to collect data from students in Grades 9 and 12. He found that students' experiences tended to focus on five major themes: time, relationship, embodiment, space and pedagogy. He used these theme to examine and shed light on how students make sense of their experiences in learning.

On behalf of the Association, I want to thank Dr Smits for his commitment to this project and for his skillful research and analysis about the lived experiences of students. I also want to thank Association staff for their work, under tight timelines, in completing this publication, especially Harlan James for his meticulous editing and our entire production and printing staff whose skill, dedication and commitment to superior quality set very high standards.

Gordon R Thomas Executive Secretary

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I. Introduction: Why Listen to Students?

[T]he relationship between educators and learners is complex, fundamental, and difficult; it is a relationship about which we should think constantly (Paulo Freire).¹

A. The Importance of the Teaching-Learning Relationship

Trying to Teach, Trying to Learn: Listening to Students is premised on the idea that the relationship between teachers and students is fundamental to the students' learning experience. Programs, technology, formal outcomes, plans and methods notwithstanding, learning ultimately depends on the complex relationship among the teacher, the students and the subject matter.² Given the centrality and complexity of this relationship, identifying the classroom conditions necessary for learning is of paramount importance.

The Alberta Teachers' Association has published several studies, including *Trying to Teach* (1993) and *Falling Through the Cracks* (2002), which examine teaching and learning conditions from the perspective of practising classroom teachers. Many of the submissions in *Falling Through the Cracks* raise concerns about the teaching and learning conditions in Alberta schools, both rural and urban.³

As the late Brazilian educator Paulo Freire pointed out, the relationship between teachers and learners is fundamental to any discussion about teaching and learning conditions. Documents like *Trying to Teach* and *Falling Through the Cracks* testify to the complexity of engendering good learning and serve as a reminder that the teaching-learning relationship is, as Freire suggests, one "about which we should think constantly."

Although hearing from teachers about the conditions that they believe are essential to effective learning is important, soliciting the views of students on the same matter is equally important. We need to ask students such questions as these: "What enables you to learn?" "What is important for you in learning?" "What good learning experiences have you had?"

Trying to Teach, Trying to Learn reports the results of a research study designed to look at the learning experience from the learners' point of view. The research was based on the belief that listening to students' stories can help educators better understand the relationship between teaching and learning and the conditions that makes good teaching and good learning possible. The research, in other words, was intended to

complement previous studies on teaching conditions in the province, thereby providing another perspective on "trying to teach."

Unlike earlier studies examining classroom conditions, this research focused on the overall question "How do students experience learning in the classroom?" In attempting to answer this question, it looked at such issues as how students perceive the role of the teacher and what qualities they consider to be important in a successful student-teacher relationship. The answers to these questions were often apparent in the way that students wrote and spoke about their learning experiences.

A teacher's involvement in a student's life is a great encouragement for the pupil to succeed through life and school. (Grade 12 student)

This report attempts to convey what can be learned from listening to students discuss their classroom and school experiences. The surveys and interviews yielded remarkable responses to questions such as "What makes learning successful?" and "What helps or hinders learning?" Participating students also had many valuable insights about what, in their view, constitutes "good" teaching.

The survey responses and interviews revealed that students' experiences in school tend to centre on five dominant themes: time, relationships (whether with teachers or peers), embodiment (the student's sense of being an embodied learner), space (both physical and social) and pedagogy (that is, the teaching-learning relationship). These five themes, which are discussed at length in Chapter II, not only constitute a structure for interpreting students' experiences but also contain valuable insights about how teaching and learning might be improved.

In addition to talking about their own experiences, students made many valuable observations about teachers and teaching. These observations are described and analyzed in Chapter III.

An overriding message that emerged from the surveys and interviews is that teachers and good teaching play an absolutely critical role not only in the academic but also in the general lives of students. The importance of good teaching is captured in this comment from a Grade 12 student who wants to become a teacher herself:

• I was really interested [in participating in the study] because I'm planning on becoming an English teacher for senior high or, possibly, elementary, so the education aspect of it seemed interesting. I've found a lot of time, throughout my education, that some teachers knew how to teach kids properly while others didn't. Some teachers didn't adapt their teaching to me, and I didn't benefit fully from the experience. But then, with others, I excelled amazingly.

By identifying what students consider important in the teaching and learning experience, this study will, hopefully, spur further inquiry into the nature of the teacher-student relationship, the characteristics of good teaching, and the relationship between teaching and learning.

B. How the Study was Conducted

Trying to Teach, Trying to Learn was conducted as an exploratory investigation into what makes learning possible for students. As such, it focused on listening to students themselves. The study was not intended as a comprehensive investigation of this topic, and the results are not necessarily statistically accurate or representative of all students and schools in Alberta. Rather, it was intended to initiate a meaningful conversation among people having an interest in the well-being of students and schools and to encourage additional inquiry into the nature of the teaching-learning relationship.

Because this was an exploratory study, the researchers, in consultation with the ATA steering committee overseeing the study, decided to focus on a relatively small sample of Grade 9 and 12 students. The researchers decided to limit the study to Grade 9 and 12 students for three reasons: (1) these students had been in school for some time and therefore had considerable experience to draw upon, (2) they were at pivotal stages in their school careers and (3) they were mature enough to reflect meaningfully on their experiences.

Researchers used both surveys and interviews to solicit input from students. The surveys involved approximately 250 students: 90 from Grade 9 and 160 from Grade 12. Of the Grade 12 students, 60 were from two small urban centres in Alberta and the rest were from public schools in a large city. The interviews involved approximately 40 students, 20 from Grade 9 and 20 from Grade 12. The students interviewed were drawn from four schools, two junior high schools and two high schools, in a large urban setting. The interview groups varied in size from four to six students.

The process used to invite students to participate in the study was as open as possible, and the study was conducted in accordance with the ethical requirements for such research. For the most part, the surveys were administered during class times in the presence of one or more of the researchers. Students were told the purpose of the study and allowed to ask questions for clarification. The tone of the questions and the survey process were intended to make students feel comfortable,

safe and unhurried. Students were informed of their right to participate and to withdraw at any time.⁴

Upon completing the surveys, students were invited to participate in follow-up interviews. The researchers decided to interview students in groups so that participants could respond to one another. The interviews were designed to give students an opportunity to elaborate on their responses to some of the survey questions, especially those having to do with what facilitates and what impedes learning. The interviews were conducted as conversations, which not only seemed a more natural forum for discussion than question-answer exchanges but also helped students assess how their experience of learning resembled and differed from that of other students.

Although the surveys and interviews were not intended to yield statistically reliable results, they nevertheless generated many evocative anecdotes that go to the root of the learning experience. By analyzing students' responses to the open-ended questions in the survey and by listening carefully to what they said during the interviews, researchers put together what they believe to be an accurate picture of how students experience the classroom.

This report is intended to provoke questions and to initiate a dialogue with interested parties about teaching and learning in general and about how students experience the teaching-learning relationship in particular. The researchers believe that an examination of this relationship will, in turn, shed light on how teaching might be improved. They also hope that the results of this study will prompt further inquiry and research.

C. Listening to Students: Interpreting Experiences

Researchers and writers have an obligation to communicate the information they gather in ethical and truthful ways and to provide readers with an opportunity to relate such research to their own experiences. In the case of this study, the challenge was to honor the particulars of the students' experiences while, at the same time, interpreting the data in a way that would offer some insight into the nature of teaching and learning generally. By listening to what students had to say about the experience of learning, researchers hoped to shed some light on what constitutes good teaching and good learning.

Trying to Teach, Trying to Learn was guided by the idea that research should focus on practical and important issues in people's lives. Bent Flyvbjerg, a Danish social scientist, argues compellingly that research in the social sciences should be interested in "the concrete, the practical and the ethical." Flyvbjerg further contends that the social sciences should "matter" in two ways. First, research should matter in helping people make good judgements about their tasks in life. Second, research should focus on the "matter" of experience by attending to what is real and important in people's lives.

In focusing on what "matters" as well as on the "matter" of experience, the researchers attempted to capture the students' *lived experiences* of learning. Capturing a lived experience involves not merely understanding what happened but also tapping in to how the person having the experience understood what was happening. The purpose of this type of research, in other words, is to get at how something is actually experienced in everyday life by listening to the stories of the person having the experience. In this study, researchers wondered, first, how students, as thinking and communicating beings, experience the world of the classroom and, second, what meaning they attribute to those experiences. The questions in the survey and interviews were constructed in a way that encouraged students, in relating their experiences, to tell "what something was like."

The responses and anecdotes that researchers collected in the process of listening to students are important, therefore, not simply for the details they contains about students' experiences but also for the clues they provide as to the meaning of those experiences in broader terms. As Richard Kearney would put it, the study attempted to engage in "a creative redescription of the world such that hidden patterns and hitherto unexplored meanings can unfold."

II. Lived Experiences of Students in Classrooms

Trying to Teach, Trying to Learn focused not on abstract ideas about teaching and learning but on the experiences of students in actual situations. Lived experiences are about concrete, everyday situations. As Francisco Varela points out, "the concrete is not a step toward something else: it is both where we are and how we get to where we will be."⁷

In making sense of the students' words and stories, researchers paid careful attention not only to the particulars of the experiences being related but also to the context in which those events took place. Context is important because people are not just objects in the world. Instead, they live in bodies, inhabit space, and discover and know themselves as active, meaning-making beings. Their spatial and bodily experiences take place in a context of time and relationships. The stories recounted in the surveys and interviews reveal that students already had deeply held views of their own "being in the world" as students.

Despite being particular to each student, the experiences that students related tended to cluster around five major themes: time, relationships, embodiment, space and pedagogy. Each of these themes, in turn, involved a number of sub-themes. The fact that the stories and anecdotes can be grouped according to themes and sub-themes suggests that the experiences they evoke hold a deeper meaning, a meaning that may not have been obvious to the students simply from the telling of the experience. Philosophers have noted that human beings, regardless of their cultural background, tend to encounter and respond to the world in certain similar ways, which are sometimes called "existential realities." The themes and sub-themes, which we will now examine in more detail, provide a structure that will help us to understand how students both experience and attempt to make sense of their lived realities.

A. Experiences of Time: "The biggest problem for high school students is time."

Time is one of the most basic qualities of human experience. Indeed, human life can be defined in terms of its movement from birth to death. However, the way that humans experience time is not that

straightforward. The passage of time as marked by a clock or reflected in a schedule is not the same as a person's conscious experience of time. How we organize and find meaning in our various life experiences is a fundamental human characteristic.

Some theorists and philosophers distinguish between our lived or "natural" sense of time and the way that we structure, control and use time in our social and institutional lives.¹⁰

"Too much pressure and not enough time are some of the problems that students in general encounter. As well, the push to work as well as attend regular classes makes the amount of work expected seem almost unreasonable." (Grade 12 student)

Education as a formal, institutional practice can be said to exist in time. Derived from the Latin *educere*, which means to lead or draw out, education refers to a movement or change over time. Time is apparent in our ideas about childhood and adolescence. It also shapes such concepts as being ready to learn, progressing through the grades, scheduling the school day, and organizing the curriculum into lesson and unit plans. Common expressions also attest to how time dominates our experience in schools. For example, we talk about "getting to school on time," "handing in our work on time," "making time for homework," "taking time for recess," "running out of lesson time" and "wasting time."

As George Lakoff and Mark Johnson suggest, time is a human creation, and how we experience time depends to a great extent on how we organize and reference our daily lives. ¹¹ Just because students spend a great deal of time in schools does not mean that they experience time only in school terms. Their experience of time may also be shaped by biological, cognitive and cultural factors that cause them to experience time as more flowing and less regimented. The extreme subjectivity of our experience of time is evident in our ability to lose track of time when we are fully engrossed in a task or are at play.

Students' stories about their learning experiences were filled with references to time. These references to time tended to focus on one or more of the following four themes:

1. School time is not the same as students' own sense of time

Many students reported a discrepancy between their own sense of time and the way that school time is scheduled into periods, blocks, days, units and school years. Their comments suggest that this more structured time does not necessarily facilitate learning. In theory, programs of studies, unit plans and lesson plans are structured and paced in a way that is intended to give students an opportunity to progress from one level of understanding to another. However, many students reported that school schedules were set up in a way that failed to maximize their abilities to learn and understand. Lakoff and Johnson

note that "our experience of time is dependent on our embodied conceptualization of time in terms of events" and "that our experience of time is grounded in other experiences." What students seemed to be saying was that the personal "yardsticks" that they use to measure time—that is, their sense of how long it takes to complete a project or understand a new concept—do not always correspond to the more formal markers of the school day. Not surprisingly, students reported that they tended to succeed most often when they felt that there was a congruence between their own senses of time and the time allocated for an activity in the school schedule:

- I found my best learning experiences to be when I was given the opportunity to work at my own pace.
- A time I was successful in learning in school was when I was given a research assignment early and then a due date was set. I was then able to take the project home and to the library. I also had class time to discuss it with other students and one-on-one with the teacher.
- I was able to learn at my own speed and get individual help on the parts I didn't understand.

Students also reported that they felt so overwhelmed by the time pressures of school that they sometimes neglected other parts of their lives. Many students, especially those in Grade 12, felt that their lives lacked balance, that what was expected of them in school dominated their experiences:

- The biggest problem for high school students is time—time to study to do well at school, time to work to save money for a life after high school, and time to still be a kid and have fun. Lots of teachers just don't understand that.
- Yes, people have lives outside of school, which sounds really dumb. I don't think some teachers realize it, but if they looked back, they probably had a life too. . . . I dance every night, so I have to balance everything; so when you have four hours of homework it's pretty hard, and then you can never sleep, never. It's stressful, too much stress.

2. School time is experienced as "feeling rushed"

Successful learning requires time. However, students in both Grades 9 and 12 reported that they often felt rushed and that their understanding of the subject matter suffered as a result:

I feel that I am way too rushed in school; the units go by way too fast.
 I think that the teachers should stop and make sure I am learning and understanding.

- In school I had a teacher who went really fast and did not explain things.
 The teacher would have us figure things out on our own. It was really difficult because it became confusing.
- [I feel frustrated by] teachers rushing through material, not fully explaining it and expecting you to know it.

Many students reported feeling pressured to cover materials or to prepare for examinations. As one student emphasized, there is "so much to learn in so little time." Other students agreed:

- Rushing at the end of the curriculum to finish the course: every year, all teachers do this. The last week of school is the worst week. For example, in this week, I have six exams and a major essay to write.
- I've always been good in social studies, but this year it was just like there's no possible way I can learn all this stuff. I think we are rushed way too much.
- My social teacher last semester was rushing us because he didn't
 have enough time to give us all the information because we only have
 a certain amount of time, so I learned nothing. There is no possible
 way I can learn all this. I think we are rushed with way too much work.

3. The organization of learning in terms of time does not fit all students

Many students commented that the time-based nature of school life with its set class periods and schedules is not necessarily conducive to meaningful learning. Some students, for example, noted that they felt under pressure to complete units of study within prescribed time periods. Others talked about having to complete big projects within tight deadlines. Many students commented that such activities, although time consuming, did not necessarily lead to efficient learning.

• I don't like to do big projects. I don't learn anything from them. They are just annoying to me. The teachers say you've got a week and then in your next class another teacher tells you you've got another big project due in three days and I just spend my time finding stuff and printing it off without even going through it more than once.

Still other students commented that formal learning is sometimes structured in a way that hampers them from fully understanding the material. For example, students noted that they were expected to learn a new concept in one day, a time frame that did not give them a chance to fully understand the concept, much less integrate it with what came before:

• [In math] we had little time left in the unit and we had to learn an entire new concept in one class. There needs to be more time for individual topics so we can understand the units better and have time to review. If there is not enough time in the school year to lengthen every topic, [they] might consider making fewer units in a year and on the final exam. There are only three to four weeks to learn an entire unit and study all the rest for the final exam. Sometimes there is even less time to learn a unit before an exam.

Grade 12 students especially felt pressured to keep on top of their subjects—so much so that they had little time for other aspects of their lives:

- Being forced to catch up at certain points of the year. So everyone crammed it all in and now we have exams. There should be equal time for work and play in one's life, so it's really bad when you cram in a lot of school work in a short time.
- At the other end of the spectrum, I've had teachers who give homework every night; but when you have four other full courses you sort of lose it because it's just so much. Two teachers look at it at the same time, and say, oh ya, Grade 12, you should do four hours of homework a night. Suddenly, you're going, I can't handle this. I have to, you know, get money, and get a job for university. I have to balance it out, but you can't spend 24 hours a day doing homework as much as your parents would love you to do so.

The relationship between the amount of homework that students are assigned and their sense of feeling rushed and stressed deserves further study. One researcher has noted that the time that students spend on homework reduces their opportunities to interact with family members and that problems with school work become problems at home, adding to students' stress.¹⁴

4. School does not always recognize the time to be a child or adolescent

Many students reported that the education system does not leave them enough time for being children and pressured them to prepare for the adult world. Some Grade 9 students, for example, stated that they were already feeling pressured to make a career choice. Although not all students commented specifically on the issue of preparing for the world of work, many of them stated that worrying about the future prevented them from fully enjoying their adolescent years:

• Yes, it seemed like when one talked about high school it is almost like, "What do you want to do for the rest of your life?" kind of thing. "You have to stick with all these options if you want to get a good job and stuff." It was like, in the middle of Grade 9, they started telling us this. It was really scary. (Grade 9 student)

• The biggest problem for high school students is time. Time to study to do well at school, time to work to save money for a life after high school, and time to still be a kid and have fun. Lots of teachers just don't understand that. (Grade 12 student)

Several students also reported feeling frustrated by a sense that what they were forced to focus on in school had very little, if anything, to do with what would be expected of them in the future:

• I think by this age we shouldn't be forced to do things that we are not very good at; we should be focusing on what we are good at, and improve it and make it so good that we are amazing at it instead of trying hard at all the things we are awful at and getting a so-so mark. Like Math is very difficult for me because I sit there and I think, why am I doing this? What is the point? I'm never going to do it again so why do I have to do this?

In an essay entitled "The Crisis in Education," written in the 1950s, philosopher Hannah Arendt argues that the basic purpose of education is to introduce young people into the world, a process that helps to renew the world. She also argues that children and adolescents need to be protected from the adult world. For this reason, she recommends that children and adolescents be exposed to educational experiences that reflect their own abilities and demands rather than those of adults. Arendt also suggests that, because students are living "between past and future," they require wise care and direction and should not be fully burdened with adult decisions. At the same time, they must be prepared so that, eventually, they can assume responsibility for the world. As a result, education during the path from adolescence to adulthood must truly be an *educere*, a "leading out." The pressures that adolescents feel during this time of transition are well-captured in this comment from one participant:

• We are feeling pressured into making decisions; but, it is difficult to forge one's path in life when no one helps you construct a map.

B. Experiences of Relationships: "Having a teacher who you can go to and ask questions."

As a society, we have determined that learning should take place in schools, which are complex social institutions. Interestingly, we nevertheless continue to regard success or failure in learning as an individual rather than a social responsibility. In commenting on their experiences of relationships, students in the study appeared to When you feel comfortable with your teacher, learning is ever so much easier. (Grade 12 student)

challenge the idea that success or failure in learning is an individual responsibility only.

Many writers have noted that our school practices continue to be influenced not just by ideologies of individualism but also by behaviourist theories of learning that tend to focus on the role of the individual in learning and cognition. Increasingly, theorists are recognizing that learning also depends at least as much on the relationships and situations in which the learner participates. Here is what William F Hanks, writing from a "constructivist" perspective, has to say on the issue:

Learning is a process that takes place in a participation framework, not in the individual mind. This means, among other things, that it is mediated by the differences of perspectives among the coparticipants. It is the community, or at least those participating in the learning context, who "learn" under this definition. Learning is, as it were, distributed among co-participants, not a one-person act.¹⁶

The purpose here is not to debate the virtues of one learning theory over another, merely to point out how listening to students may provide insight into the nature of learning. Judging from their comments, the students who participated in this study clearly recognized that learning depend not solely on the individual but also on participation and on relationships with teachers and peers.¹⁷ Their comments suggests that some alternative approaches to teaching and learning may be worth considering.

1. Relationships with teachers

The teacher-student relationship is obviously central to the experience of learning. Nevertheless, classrooms are not always organized in a way that fosters the kinds of relationships that are most conducive to learning. Indeed, particularly at the high school level, the subject matter sometimes seems to be accorded more importance than student-teacher relationships. Many of the students participating in the study, especially those in Grade 12, commented that they felt pressured to learn by themselves and that having an intensive relationships with a teacher was missing from their learning experiences.

According to the research, the pedagogic relationship is one of the most important experiences for young people. Max Van Manen uses the term *pedagogic relation* to describe the particular kind of responsibility that a teacher has for his or her students. That responsibility obviously entails engaging students in meaningful learning, a process that, in our culture, involves imparting important knowledge that has been

organized into curricula and subjects.

It does not refer to a relationship outside of learning. Although students participating in this study recognized the importance of learning *something*, they stressed that learning is equally dependent upon having good relationships with teachers who are able to engage them fully in dialogue and other forms of participation.

I find that the most difficulty I have had in class is not being listened to or understood.
(Grade 12 student)

In their comments, students expressed the desire to have good relationships with their teachers. This relationship is not friendship nor the kind of bond that exists between a child and a parent or other relative. Rather, what students were looking for were teachers with whom they could talk and who would give them one-on-one attention. Some students commented that such relationships were hard to come by because of large classes or because of their own shyness:

- Well, I'm really shy in classes and a bad relationship is when a teacher does not even know my name until about halfway through the year or how I was doing or anything, so there's no way he could have given me help because he did not know who I was. (Grade 12 student)
- Like I am really shy in class. It was really weird because [the teacher] did not know how I was doing or anything so . . . he could have given me help. (Grade 12 student)

Still other students commented on the importance of having teachers who knew them personally rather than just as a member of the class:

• Teachers who know their students, like, know what you're getting and won't just give it to you at the end of the term; they tell you what you need to do to help yourself out and it doesn't feel like you're just one of the class, that you are actually a person who's trying to learn and the teacher knows that and knows you.

Many students also commented on the importance of having a teacher who welcomed questions and with whom they could communicate. Several students mentioned having had teachers who were difficult to approach and who made them feel uncomfortable asking questions. One Grade 12 student commented that a good teacher would reach out to her and not make her feel like a "goody goody" if she asked questions. Others noted that a good teacher is open to students and not merely focused on his or her own views and ideas:

 When you feel comfortable with your teacher, learning is ever so much easier; however, when your teacher is voicing his or her own opinions and telling you what is allowed in discussion it inhibits your ability to relate and participate. Significantly, many of the students who responded were also very aware of their teachers' relationships with other students and sensitive to what they perceived as "favoritism":

- I get along well with teachers, but I found for other students that there was favoritism, and that was really horrible.
- Some students get picked on in a very harsh manner and they do not say anything to the teacher to avoid getting picked on more.

The anecdotes that students related about the importance of establishing good relationships with their teachers are supported by constructivist theories of learning, which emphasize the importance of language and participation in understanding.¹⁸

Strong student-teacher relationships may also be understood as a form of what Croninger and Lee call "social capital." Social capital, in this setting, refers to the strengths, abilities and other qualities of students that help them gain access to teachers. Many studies support the notion that the attention students receive from their teachers contributes significantly to their ability to learn. Indeed, the absence of individual attention may be one of the major reasons that some students, especially those at risk, drop out of school or become discouraged or disenchanted. On the students of the stu

In commenting about their relationships with teachers, several students suggested that the onus should be on teachers to create, through their conduct and management of the classroom, conditions that make students feel safe in asking questions and participating. More specifically, nurturing relationships conducive to learning requires an ability on the part of the teacher to draw students out, especially those who are too shy to participate voluntarily. Students also emphasized in their responses that the teaching-learning relationship is an active rather than a passive one and something that should not be taken for granted.

2. Relationships with peers

In describing what made learning possible for them, many students—not surprisingly—discussed the importance of establishing good relationships with their peers. Some students claimed that their relationships with peers hampered their ability to learn while others maintained that such relationships were beneficial to their learning. One Grade 9 student, for example, described a situation in which she felt that she learned more when her friends were absent for a day:

• Yesterday, I felt successful in learning. I accomplished this in my science class. I actually listened to my teacher and finished my entire work sheet

in class with still five minutes to spare! I feel I did this because the person who I sit with was absent for the day and all the rest of my friends sit too far away. Also, two of my best friends were absent, too, so I had no choice but to work. One sits behind me and the other sits just a row away.

Others students also remarked on how peers can sometimes get in the way of their efforts to learn:

- Peer pressure is a big concern. Also not asking questions because one doesn't want to look stupid.
- Negative remarks from people, jobs, activities in school, and a major one would be friends. If we are focused on what people think about us all the time, we won't worry about how well we're doing in school. I guess really, in the end, we are the ones who get in the way of our education if we let ourselves become so distracted by other people's opinions.
- Peer pressure. I know it sounds kind of predictable, but it's true. The biggest distraction in school is our friends and the pressure we're put in to be the "cool" group. The people who fly solo in school end up doing better than the "popular" ones in the future.

On the other hand, many respondents, both in Grades 9 and 12, cited their relationships with friends as a factor in helping them to do well in school. As one student noted, having friends contributes to a sense of being connected to the school:

• If you don't know anyone you are not going to want to come to school, and negative aspects follow you. When that is on your mind, then you cannot learn when you're worrying about different things [related to friends, other students]. Friends are why you come to school; you always look forward to seeing them.

Other students claimed that their peers encouraged them to learn:

- I learn best from my friends and stuff, because they're more willing to teach me than a teacher would, as [teachers] seem to not have enough time or something.
- I think that for kids, if your friends explain it to you then you learn a lot better because they can relate it to you.

Students' comments about the importance of relationships underscore the fact that learning is a social and context-specific activity. Learners are not simply disembodied minds but whole people who are dependent emotionally, socially and cognitively on certain critical forms of participation.²¹

In the context of discussing relationships, some respondents questioned whether competition has a place in schools. Some students suggested that the stress of competition discourages participation:

- Competition. It is always the same people who receive all the credit. These are the ones who get awards, but what about those of us who are "medium"? When we do well, teachers don't acknowledge our achievements. There is an award out for students at our school for a huge sum of dollars. Many of my friends won't apply because it is always the same people who win.
- There is too much comparing and emphasis on being the best.

3. Relationships and learning

Relationships clearly play a critical role in students' learning experiences. As Max van Manen has suggested, relating to others is central to human experience; social experience provides not just support but also meaning and possibilities for one's identity.²² Constructivist theorists have also emphasized that relationships and participation in society are important aspects of learning.²³ Here is how one Grade 12 student described the social aspect of learning:

• I like some more interactive things, like working in groups. You get other people's input and stuff.

On the other hand, some students commented that there was sometimes too much emphasis on social interaction. One student remarked that too much interaction could be a distraction that interfered with successful learning:

• I like more individual learning, I just like going at my own pace and so when I do need help if the teacher is there then that's good, but I do not always need the teacher to be like constantly teaching and stuff so that's how I learn better.

Students from both Grade 9 and 12 were ambivalent about the value of "cooperative" or group learning. Although many respondents described group learning as a positive experience, others commented that group projects sometimes distracted them from learning.

Students also seemed to realize that learning involves making time for contemplation, reading and thinking, all of which help a person develop an inner dialogue with the self.²⁴

Judging from the students' responses, human relationships are so central to learning that technology could not replace them:

• Computers can't take the place of relationships. The worst thing we did in school was trying to learn something on computers . . . in social studies we worked on computers for a whole unit, but not one person liked it as it was so hard . . . you were off by yourself and only one person would do the work and the rest would just copy it off them,

as no one knew how the computers worked. Some had to do math on the computer and they hated it . . . I would print the pages off the computer, which made it a lot easier.

The students' anecdotes about relationships underscore the social aspect of learning. Although learning might ultimately be explicable in terms of neurobiological changes in the brain, it would not occur at all without language and without the learner's ability to relate to other people.²⁵

C. Experiences of Embodiment: "It's a good feeling when you do well."

According to French philosopher Merleau-Ponty, bodily experience is central to our interpretation of the world: "Our own body is in the world as the heart is in the organism; it keeps the visible spectacle constantly alive, it breathes life into it and sustains it inwardly, and with it forms a system." Far from being passive objects, human beings are "whole beings" who participate in the world physically, emotionally and cognitively. As a result, our bodies are where learning happens. Recent writers in the field of cognition use the term embodiment to describe the process by which learners create meaning by becoming fully engaged in concrete situations. According to them, learning is not an abstract experience. Embodiment refers to the desire not only to be active in learning but also to bring the world and knowledge into being (a process that is sometimes referred to as the experience of enactment).

To speak of embodied learning is to recognize that learning is not just a function of the mind but that it involves the "whole" person, body and mind.²⁹ Embodied learning also implies that the learner, far from being passive, is actively engaged with the world. Lakoff and Johnson describe embodied learning and knowing as follows:

What we understand the world to be like is determined by many things: our sensory organs, our ability to move and to manipulate objects, the detailed structure of our brain, our culture, and our interactions in our environment, at the very least. What we take to be [true or meaningful] depends on our embodied understanding of the situation, which in turn is shaped by all these factors.³⁰

The students who participated in the study suggested the following four ways in which learning can be considered an experience of the "whole" person: I am most successful in learning when I have something that I can feel, touch and see. (Grade 9 student)

1. Physicality of school and learning

Students' comments support the notion that learning is not only a cognitive but also a physical and emotional experience than cannot be contained within the parameters of the school day, the curriculum or the classroom experience. Asked about the factors preventing them from learning, many students, from both Grade 9 and 12, talked about having difficulty focusing or paying attention during class time. Others mentioned the effects of stress on their ability to learn. Grade 12 students, in particular, described the pressure resulting from exams:

- Sometimes grasping the concept of a certain topic and above all, EXAM STRESS!!! (Can you tell I'm stressed?)
- There is so much emphasis on diploma exams by the end of each year that I'm so stressed out and worried that I do horrible on final tests; it's really discouraging.

Several respondents also mentioned how school work can encroach on other aspects of their lives (or vice-versa):

- Between school, homework, social life and eating I have practically no time for sleep, and no sleep means that I'm extra tired in class. This makes it hard for me to learn, when I can hardly stay awake in class.
- If you have a lot of homework at one time and a whole bunch of exams, I think that is really, really difficult, and I get stupid stressed out.
- It's hard when you get home from a day of work and you're super tired and you still have two hours of homework, and sports and other outside activities.
- I don't think people realize how much stress that teenagers, kids our age, have. We are all trying to graduate. I have two jobs, and that's a lot to hold down and try to have a little bit of a social life and do homework . . . so I think it's just totally overwhelming.
- Another time in school I have felt that there was too much to do. When there is up to four hours of homework for one class every night, plus two tests per week. It gets very stressful when you have that much to do, plus I have other classes to keep up with. It makes my work sloppy and doesn't encourage me to do my best work, or to want to learn.

A significant number of students also commented on issues of physical well-being, such as nutrition and adequate sleep. Taken together, these comments demonstrate that learning is greatly affected by physical and emotional factors. Because the study was exploratory, it did not fully examine such issues as whether participation in extracurricular activities and employment affects the ability of high school students to learn or whether the demands of school work have increased over time. Nevertheless, the students' responses emphasize that learning

cannot be separated from issues of physical and emotional well-being and from what is happening in students' lives away from school.

A number of students commented that they felt hampered from participating fully in classroom interactions and did not feel "bodily" engaged in the classroom. One reason for this lack of participation was clearly shyness: "Shyness gets in the way of learning"; "Shyness, lack of confidence, too shy to request help, or answer questions." Some students reported that, because of their shyness, they were made to feel stupid when they attempted to ask questions and, as a result, were reluctant to engage fully in classroom learning:

• One teacher couldn't explain a concept to me and we both got frustrated, and he told me not to worry about it because it isn't a big deal if I don't understand one concept. This made me feel as if I might as well give up now.

2. Experiencing pleasure in learning

When asked about the factors that enable learning, Grade 9 and 12 students participating in the study were almost unanimous in stating that learning had to be "fun." On the surface, this comment might be dismissed as merely an indication that students don't recognize the hard work involved in learning. But on further analysis, it becomes apparent that what students meant by fun was the pleasure that results from having a successful learning experience. In other words, students experienced pleasure when they were actually able to understand and apply something. In insisting that learning should be fun, students were also adamant that learning should have a clearly defined purpose. The range of factors that make learning pleasurable for students is illustrated by the following responses:

- Enjoying what you are learning and having fun while doing it is the most successful way to learn. When you do well you want to keep trying so you keep getting good marks. It's a good feeling when you do well.
- It gets better if they do something fun that's related to your life and life situation so you remember it more.
- Interest. Just basically being able to sort of go, this is really fun, and not just fun, but not what is this, and why are we doing this?
- Being bored. When we write 10 pages of notes or watch crappy movies made 30 years ago. If it isn't interesting or fun it is hard to focus.
- If it's interesting, then I'll pay attention; if it's fun, then I'll probably remember.

• One MAJOR thing that makes learning successful is if the class is interesting, challenging, engaging, and FUN. I think that's the most important thing.

3. Experiencing learning as "hands-on"

Students emphasized that, to be effective, learning must be hands-on, it must include not only concepts but also opportunities for applying the concepts involved. In other words, they wanted not just to learn *about* something but to *do* something, to create something new.³¹ Here is how some students expressed the importance of having "hands-on" learning experiences:

- There have been several classes where we had really amazing discussions that should be mentioned. Utopia, parallel universes, etc. But many of the hands-on learning experiences deserve to be mentioned too. We went to plays, which not only applied to and assisted my learning in school, but outside school as well. I think more than one particular story, it's the number of times that we have done that that enriches the learning experience and apply later to so many other learning experiences and applications.
- I was successful in learning when I went on an outdoor educational trip and we went to historical sites; it's better for me to learn when I'm actually where the stuff took place.

In addition to wanting their learning to be hands-on, many students noted that they learned best when the subject matter was applicable to their own lives. By contrast, when they could see no connection between what they were learning and their own lives, they were less engaged:

- Math. The bane of my existence for as many years as I can count.
 I cannot relate it to my life or become interested in what I'm learning.
 I find it boring and cannot find any way to apply myself to it since
 I rarely understand it.
- Math is very difficult for me because I sit there and I think, why am I doing this? What is the point? I'm never ever going to do it again, so why do I have to do this?
- I think by this age we shouldn't be forced to do things that we are not very good at; we should be focusing on what we are good at, and improve it and make it so good that we are amazing at it instead of trying hard at all the things we are awful at and getting a so-so mark.

What students seem to be saying in these comments is that learning involves not just knowing something in the abstract but understanding it in the fullest sense. Understanding involves the ability to apply

knowledge and skills to one's life and to see connections between seemingly unrelated concepts.³² As Francisco Varela points out, learning involves not just "knowing-what" but also "knowing-how." Far from being something that is merely accumulated, learning is something that is enacted or brought into being through the active participation of the learner.³³

4. Experiencing a sense of agency as a learner

Many students expressed a desire to have *agency* in their learning, that is, a sense that they were in control of the experience. Agency also has to do with experiencing oneself as a *capable* person. The philosopher Paul Ricoeur has observed that, in order to obtain a sense of self, a person needs to feel capable of understanding and doing.³⁴ As he points out, a capable person is one "who can speak, who can act, who can recount, who can impute actions to himself or herself."³⁵ Becoming a capable learner entails participating fully in an activity and feeling that what is learned has significance to one's self as a person. Learning, in other words, becomes part of who one is as a person. As Varela notes, "knowledge depends on being in a world that is inseparable from our bodies, our language, and our social history—in short, from our *embodiment*."³⁶

The importance of experiencing a sense of agency and self-direction is apparent in these student responses:

- Seeing learning as one's own responsibility—attitudes for being successful.
- Students in general are not seen enough as individuals. Students today are not encouraged to see their weaknesses as human and that is why they do not step forward for help.
- That helps you to identify your own strengths as well as you can see, like if you have the choice and then you know what you want to do and, like, even for your future, you can see what kinds of things you like to do.
- I think this freedom thing means having choice of doing different projects and taking it in different ways so that we can do it to the best of what we feel like either if we are good at writing essays or doing a poster or visually or whatever. [But that's different] from where there is no discipline. And I think that freedom needs to cut off there.
- One of the biggest problems I face in regards to learning in school is not related to the material or style of teaching but a lack of work ethic on my part. Outside of school this has never been a problem. I probably learn more outside of the classroom than in it. In school I have a hard time being motivated enough to achieve as deep an understanding as I am capable of. I don't know why this is.

• Choice. Because then you have a choice in what most appeals to you and you're more likely to associate with it.

To sum up, students' responses support the view that learning is a participatory experience that engages the whole person. Their comments are consistent with Lave's and Wenger's view of learning as an embodied activity:

It [implies] emphasis on comprehensive understanding involving the whole person rather than "receiving" a body of factual knowledge about the world; on activity in and with the world, and on the view that agent, activity, and the world mutually constitute each other.³⁷

Being an agent in learning means not just passively receiving knowledge but also actively creating, enacting and "bringing forth" meaning from the array of experiences and resources available in teaching and learning situations.³⁸

D. Experiences of Space: "Having 40 kids in a class gets in the way of my learning."

In their responses, students had a lot to say about how they experienced space in school. On one level, space refers to the setting in which teaching and learning occurs, to the physical layout of the school, including its classrooms and hallways. Many students talked about the physical quality of space. For example, the Grade 12 students frequently described the feeling of constraint that results from being in crowded classrooms and hallways.

Students also used the word "space" in the sense of "atmosphere" to describe other less tangible but nevertheless deeply felt aspects of the school setting that affected their ability to learn. As Max van Manen points out, "we know that the space in which we find ourselves affects the way we feel." Many students suggested that space, as they experienced it in school, was not always conducive to learning, did not make them feel comfortable and did not support the kinds of activities that would engender good learning. Here's how one student described the space in his school:

In our school there are way too many kids. You can't move in the hallways.
 It makes everyone uncomfortable being elbow to elbow all the time.

In their comments about space, students focused on three general themes:

1. Physical space: class size makes a difference

Although students were not asked specifically about class size, many of them talked about overcrowding and its negative effect on learning. References to overcrowded classrooms were particularly evident in the comments of Grade 12 students. Students described not only the physical overcrowding but also its impact on their ability to have sustained interactions with a teacher or to get special attention when they needed it. Several respondents mentioned that some of their peers who required extra help were lost in big classes because there was "not enough teaching going on with those students who have difficulty." Here are some other examples of how students experienced space:

- One time we had a really big class and some rude people, too, and I couldn't concentrate. Also my friend was in that class with me and she kept talking to me and that frustrates me because I like it quiet in order to learn something.
- In a class that I am presently taking the classroom is jam-packed with people. As a result not everyone can get individual attention.
- When teachers don't give enough help to students because there are too many students in the class. When trying to make a comment or ask a question you either have to wait too long because the teacher is busy with other students or you don't get answered at all. Another is not having the motivation to go to class at all. By the end of the year, I'm so sick of school I no longer even want to go.
- Large classes are a problem—because the teacher cannot get around to help you. A teacher does not have enough time to get to everyone. That's the case pretty much in all our classes.
- There are too many students in a classroom, not allowing the teacher to help all of the students to the degree that they need.

Some students recalled with fondness earlier times when they had been in smaller classes and learning had been easier:

- There were less people in the class in my Grade 6 class. It was like we were more comfortable with being in the class. It was like we were all family at the end of Grade 6. It wasn't embarrassing to ask questions either.
- Because there were fewer people in the class, we were able to ask questions
 and have them explained in greater detail than usual. And in math, it was
 easier to work because there were fewer people talking and trying to be
 heard over the noise.

The debate about class size has been long standing. However, students' responses in this study attest to the fact that space and how it is perceived have a profound effect on how students experience

themselves, how well they learn and on how they relate to their teachers. Much evidence now suggests that class size has a profound effect on the overall quality of schooling. Summarizing recent findings, Wendy Schwartz notes that "class size reduction can result in greater in-depth coverage of subject matter by teachers, enhanced learning and stronger engagement by students."⁴⁰ Significantly, many states in the United States have introduced legislation to reduce class sizes, particularly in the early grades. Students' responses in this study confirm that class size plays a crucial role in how well students learn.

2. There are often too many distractions for learning

Many students noted that learning spaces in schools, rather than supporting learning, often contain distractions that make concentration difficult, distractions such as too much noise, too many other students in close proximity and the inability of teachers to provide a sense of calm.

- That day in class everyone was there. They were talking loudly and it was hard to concentrate. The teacher could not explain things well because there were so many people needing help. The discussions we had that day were not as helpful and students were talking out of turn, yelling at each other, making fun of each other. It was hard to concentrate.
- Lots of distractions in class: It's not the fault of teachers, but an improvement of teachers would help.
- I decided to ask if I could work in the library where it would be quiet because it was way too noisy in the classroom. However, it was worse in the library. I was unable to find a place where there were no distractions.

These comments suggest that, because schools and classrooms are organized to serve students en masse, they are unable to create some of the conditions—such as a quiet atmosphere and an absence of distractions—that are necessary for learning. Furthermore, the conditions that may be an asset to one student's learning may be a distraction for another, as this comment from a Grade 12 student suggests:

• Smaller classes are probably good, but it's not that big of a deal; but the teachers are always saying "quiet, quiet, quiet." I think that doesn't work all of the time because most of the [students] can't really work in a really quiet environment because that is not what they are used to.

3. Learning requires space

In addition to discussing the problems—overcrowding and distractions—with existing learning spaces, students had plenty of suggestions for what constitutes a "good workplace":

- I find that I was most successful in Grade 11 history because the environment had a very positive attitude about it. My teacher was extremely organized and her room was colorful. The desks we put side by side in a "U" shape making it easier to see her and each student. This made discussion easier, and therefore more learning was done.
- The environment within a classroom affects learning ten-fold. A cold bare classroom is no way to learn and doesn't encourage after-school visits.

Other students used terms such as "friendly," "relaxed" and "comfortable" to describe the kind of learning spaces that they would like to see in schools. One Grade 9 student wrote, "I like it when classrooms are super relaxed, more homey." Interestingly, Max van Manen notes that a homey environment is one in which people feel more like themselves: "Home is where we can *be* what *we are*."⁴¹

What is particularly striking about students' discussion of space is the frequency with which they talked about how not just the physical space but what might be called the classroom "atmosphere" left them feeling out of place or uncomfortable.

Some students used the term space to refer not to physical space but to psychological space, by which they meant having room to be themselves. The major impediment to this kind of space appeared to be a narrowly focused curriculum that causes students to lose interest. Here's what one Grade 12 student had to say on this topic:

• Other students, including me, often find it difficult to concentrate in class. Distractions can easily occur in class. The topics teachers are teaching are often uninteresting. It seems like all they care about is to meet the curriculum of the course, and not the actual amount of studies we've absorbed.

Used in this sense, space for learning means having the freedom to explore and expand on possibilities, having the room to grow in skill and understanding and to set one's own path. Many students complained of feeling constrained by certain classroom practices, of being in a "strict environment with no freedom." Several students commented that the teacher plays an important role in creating spaces for learning:

 What makes learning successful for me? Having the room to reach your highest goals—your capability. I think the surroundings and atmosphere affects me a lot because I get distracted very easily and so I need to be in a class where the teacher pays attention to all of us and knows our individual needs and helps us grow.

E. Experiences of Pedagogy: "I like to ask many questions and get answers."

In ancient Greek culture, a "pedagogue" was a slave who was responsible for taking a child to and from school. Inherent, then, in the word "pedagogy" is the sense of leading a child. Until recently, modern educators seldom used the term pedagogy in references to education and schooling. The term is now used more frequently but its meaning varies broadly.

Believing in what you're learning is important.
(Grade 12 student)

Max van Manen uses the term pedagogy to refer to the relationship of responsibility that exists between an adult and a child.⁴² In terms of education, pedagogy refers to the special responsibility that a teacher has for leading a student to a fuller understanding and knowledge of the world as prescribed in the curriculum.

The term pedagogy is used here in a somewhat broader sense to refer to the qualities of the relationship between teaching and learning as experienced by students and to the practices that, in the view of students, support successful learning. In their comments about the teaching-learning relationship, students identified the following four qualities that must be present for learning to take place effectively:

1. Learning means being taught

Although somewhat awkward, the phrase "learning means being taught" captures students' observation that they learn best when the teacher is actively engaged in instruction as opposed to standing by and monitoring students as they work from textbooks or engage in group work. Such engagement involves providing explanations, giving examples and other instructional strategies that help student to understand. As one student put it, "textbooks—they don't teach!" Another student complained that, in one class, "the teacher never taught the lesson" but, instead, expected students to memorize the information in the textbook. During an interview, another student made the same point this way:

• Don't do it verbatim from the textbook. I find that if you know extra stuff about the stuff that you're teaching you can kind of make it interesting, cause there is always something hidden in everything you teach that might apply to somebody or spark their interest and eventually it will spark everybody's interest.

Other students also commented on the ineffectiveness of learning from the textbook:

- One of my teachers just hands out the work and does not take the time to explain what it all means. We're not learning when we're just taking the answers from a textbook and filling in the blanks.
- I believe some teachers don't actually teach you things; they just give you a book or worksheets, which makes it difficult to learn.
- I feel the teacher is actually teaching me when, instead of giving me a textbook and a whole bunch of questions to read and stuff, she actually explains the activity and gives us an example and then, I don't know, puts us off to work.

Many students in both Grades 9 and 12 emphasized that "taking notes" and "learning new material independently" are not nearly as effective learning techniques as having the teacher explain the materials and concepts. One student, for example, expressed frustration with "teachers who don't explain things completely and apply the concepts in ways I understand." Other students related similar experiences:

- [I learn less] when teachers are simply showing they know how to do it and don't explain how they do it.
- I find some subjects harder than others and I need a teacher to be there to explain it to me. I need someone to come and help me because I need that help. I don't think there is enough of that.
- [I learn less from] teachers who don't explain things completely and apply the concepts in ways I understand.

Interestingly, even Grade 12 respondents emphasized the importance of the teacher in the learning process. One student, for example, complained that, instead of actively teaching, her teacher concentrated on getting students to produce work:

• In English class I tried my best to be creative. I did, or at least tried to, write a Hamlet essay the way the teacher wanted. But when I got it back I found it filled with corrections. She said it wasn't right. She said that we were supposed to know these things by now. She said something like "your learning time is over, you learn until Grade 11 and in Grade 12 you apply that." I felt as if I could not get any help from the teacher.

Another Grade 12 student felt that she had not been properly taught, a failure that she attributed to the teacher's poor preparation and unwillingness to teach:

• I experienced difficulty learning in my Social Studies 30 class this year because we were not taught; the class was basically like this: show up, show the 40-some odd questions we were assigned the night before. And because there are so many, it is impossible so we all end up showing her work that we did weeks ago. We didn't go over our work and then she said, "Now work on these questions and then these other 40 are due tomorrow." Not much learning here—if the teacher isn't prepared and willing, neither is the student.

If you want us to learn, take the time to teach us! (Grade 9 student) Still other students pointed out that giving out more homework, far from contributing to learning, just adds more stress:

• Teachers ramble all [during the] class about nothing that has to do with the [subject] then assign homework in the last five minutes.

Then they correct the homework and then show us how we should have done the homework. We should be taught about the subject before we do our homework.

2. Engaging in dialogue

According to their comments, students learn best when they have the opportunity to engage in dialogue with their teachers by either posing or responding to questions. As one student put it, "helping the student or just answering a simple question could make a difference." Several other students commented on the importance of asking and answering questions and on the role of the teacher in inviting learning:

- I find that I am successful in learning when I am in a classroom where I feel comfortable and the environment is one where you are able to fully communicate if you have any questions. I learn best when a teacher interacts with the class by teaching through different methods. In my Biology 30 class, my teacher teaches usually visually through examples and demonstrations as well as through notes. I am most successful during this class because I am given the chance to fully understand.
- There has been the odd year in which I have had the privilege of being in a class with an excellent teacher. These teachers have helped me with anything. When I need to ask a question and don't want to ask it aloud for fear of appearing stupid, they have allowed me to ask it one-on-one with them. These teachers also take the time out of their day to offer me extra help. This makes it easier to learn when it's just one-on-one with the teacher.

Naturally, many students also mentioned how they felt when the teacher ignored their questions or didn't consider them worth responding to:

• One time in Pure Math 30 I asked a question about something that I didn't understand, and some students sitting behind me began to snicker and laugh and started to call me stupid. All the teacher did was look at me and say, "Well, what don't you understand?" and I said, "The whole thing." And he said, "Well too bad." This really got to me and after that I never asked questions because I didn't want to feel stupid. As a result, I almost failed my class. If he had taken a better approach to my question and offered help that probably would have made it better.

These comments, of course, are not just about the importance of engaging in dialogue; they also illustrate some important aspects of the learning experience. Many researchers have observed that the give and take inherent in the process of questioning and answering is essential to achieving knowledge and understanding.⁴³

In emphasizing the importance of dialogue, students were referring not just to verbal interaction with the teachers but also to certain kinds of projects and activities that challenged them to reach out beyond themselves. As the philosopher Martha Nussbaum has advocated, this kind of learning, which encourages students to see things from different perspectives by "standing in the shoes of others," ought to be one of the strongest features of education for young people.⁴⁴ Here's how some of the Grade 9 respondents described this kind of learning experience:

- Last term I was in social studies. I felt that I was successful because I learned lots of information and I got 97 percent (a good mark). We were learning about Russia and our teacher taught us about life in Russia by making us do journals. We had to put ourselves in the place of different classes in Russia. I learned a lot about the peasants and the nobility because I had to make myself think like one.
- I liked the way the teacher got us to put ourselves in the place of the people in the different classes of Russia at the time. The teacher made us think about how the people must have felt and what they would have experienced.
- In Grade 8, when we were learning about economics and wealth distribution, we did a simulation that I thought was a very effective learning experience. The class was divided into "countries" depending on population. This simulation is something I have never forgotten. Everyone was involved and had a part in the learning experience. It was simple, but the main point was presented successfully.

3. All students do not learn the same way

In addition to being asked about their own learning experiences, students were questioned about the learning experiences of their peers. Judging from their responses, students in both Grades 9 and 12 were well aware that people learn in different ways, that "children have drastically different intelligence levels" and the teachers treat students differentially. Several students remarked

that teachers do not pay enough attention to different learning needs and dispositions. One student, for example, noted that "teachers do not recognize differences in learning" and that "some individuals need—but do not get—teacher attention." Other students made similar comments about the importance of recognizing individual differences:

- Some kids learn by seeing, hearing, doing and we are only given one choice. Some kids need more time to take in information than others. When teachers talk non-stop to get through something, a lot of kids are lost.
- The main difficulties, in my opinion, are that everyone learns in different ways and that often all of these different ways of learning aren't exercised.
- [Students] need to be taught in different ways because a lot of people can't learn from those things and they can only learn from looking or touching, or from applied things.
- I think the attitude for any teacher is to be open to ideas and that's really important in any social circumstances. You have to be open because every student is different—different ideas, different ways of doing things. You can't make them walk on a tightrope and say, "This is how we are doing it, you can't go this direction or you will fail."

4. Learning means to understand why

When asked what makes learning successful, a surprising number of students noted that they learn best when they understand not only *what* they are learning but also *why* they are having to learn it. In other words, they wanted evidence that the subject matter was relevant to their lives. Here is how one student put it:

• In one specific math class I had a teacher who liked to teach with the policy of "believe me, I'm a teacher" instead of actually explaining why you do something. In math and science, I prefer to know WHY you do something instead of [being told] "you do this."

When students do not understand why they need to learn something, they find the lesson routine or boring:

- When you sit there and listen and you're just thinking, why, what am I going to use this for, what do I need to know this for? I just don't understand why.
- The subjects they teach in school are incredibly boring, it's just dried up cardboard, it doesn't have any taste or flavor of what really happens.
- You got to wonder where are the people who make up the curriculum, like who are they, what are they doing; but sometimes you're just like, why?

Simply telling students why something is worth learning may not be enough. Eleanor Duckworth has observed that students profit from being placed in situations that challenge them to discover for themselves the value of learning something.⁴⁵

F. Summary: Recognizing Complexity in the Lived Experiences of Learning

Using surveys and interviews, this study attempted to capture students' *lived experiences*, that is, not just their memories of situations and events related to learning but their efforts to make sense of those experiences. As we have seen, students' stories about successful and unsuccessful learning experiences tended to cluster around five broad themes: time, relationships, embodiment, space and pedagogy. Analyzing those themes helped us to understand those experiences and provided some insight into the process of learning.

In practice, learning is an extremely complex phenomenon that involves the interplay of a variety of factors. Indeed, some theorists have turned to what is known as "complexity theory" to explain the active, dynamic, non-linear and living qualities of human behavior and learning. ⁴⁶ One of the aims of *Trying to Teach, Trying to Learn* is to demonstrate the complexity of the learning process and to sensitize educators to the factors related to time, relationships, embodiment and space that affect students' ability to learn.

Drawing on the lived experiences of students with respect to learning, our discussion of pedagogy focused on the complex relationship between teaching and learning. As Jon Young and Ben Levin from the University of Manitoba note, this relationship, though central to learning, is extremely complex and difficult to quantify:

Fundamental to understanding the nature of teaching is appreciating the uncertain relationship between teaching and learning....

Learning theory is a complex field and, despite important developments in the last few decades, we are far from anything

resembling a science of learning if, indeed, such a science can ever develop.⁴⁷

In discussing the complexity of learning, Young and Levin make a number of observations that are supported by the students' responses collected in this study: that not all students learn and find meaning in the same way, that students are under pressures on a number of fronts and that learning is affected by a diversity of conditions in schools.

Because the relationship between teaching and learning is so complex, determining what works best for students is no easy task. With reference to relationships, for example, some students reported that their relationships with peers helped them to learn while others reported that it hindered them. Similarly, some students benefitted from cooperative learning activities while others preferred to work alone. For some students, noise was a distraction whereas others were bothered by too much silence.

In the next section, we will examine some of the implications of the relationship between learning and teaching, which, as students' responses reveal, is an extremely complex one. Clearly, the complexity of the learning process demands a correspondingly complex approach to teaching, an approach that includes the exercise of good judgment.

III. Emerging Understandings and Implications

A. Emerging Observations about Teachers and Teaching

Although students participating in the study were not asked directly about what they liked or disliked in teachers, their comments nevertheless contain some interesting insights into what they consider good and bad teachers and teaching practices. These insights into teaching were contained in their comments on each of the five themes discussed earlier in relation to students' experiences of learning. With reference to the theme of time, for example, students noted that good teachers ensure that students have adequate time to learn. Similarly, with reference to relationships, students observed that they learned best when they had a strong relationship with their teacher, when teaching made them feel excited about learning and gave them space to grow and understand and when teachers treated them with care and respect.

A good, positive attitude from the teacher makes it fun to learn.
(Grade 12 student)

Naturally, many students had critical things to say about teachers and teaching. For example, some students noted that teachers do not always have an adequate grasp of the subject matter and are sometimes incapable of helping students to understand it. Others complained that some teachers attempt to foist their own political or ideological beliefs on students and display little tolerance for students' own beliefs.

It is worth emphasizing that not everything that students wrote or stated in interviews can be considered objectively true. Instead, the responses capture what students *perceive* to be true about their experiences. Even in cases in which a student may have misinterpreted the teacher's intention, the students' experience of that interaction can provide valuable insights into the role of the teacher and the nature of good teaching practice.

In their comments, students identified four characteristics of good teachers, as described below:

1. Learning happens when teachers are passionate and dedicated

Many participants noted that they tended to learn the most from teachers who were passionate about their jobs and exhibited concern for their students. As one student put it, "I think teachers should be teaching us because they love it and not just because they are going to teach it." The profound effect that a dedicated teacher can have on a student's ability to learn was evident in many of the students' responses:

- [T]he best teachers . . . have so much enthusiasm; otherwise your life is wasted.
- Some of the best teachers, newer teachers have so much enthusiasm, like everything they do they are so happy to be there and you think, "Yahoo, I am happy to be here too!"
- I like a teacher who will come out and joke with you because a lot of them make you feel you can't talk to them and ask questions. Maybe you're not getting all the stuff, but if they're willing to help you then you're willing, too, and you feel like you are learning.
- What affects [my learning]? Teachers who we are learning from. You can actually tell who likes to teach and who doesn't. When they do [like it], it is a treat for the student and should be taken advantage of; when they don't, it seems that learning to your maximum ability is impossible.
- I think students do better if the teachers (all of the staff) show that they are in fact interested in the future of their students.
- In a previous semester, I had a teacher who was passionate in his/her job and I had one who was what seemed to be just waiting for his/her pension. In the class where the teacher was passionate, my marks excelled. I was interested in what I was hearing and it was fun.

 In the other class, my main goal was just to get through the class. (Grade 12 student)

Students also recognized that good teachers have confidence in themselves, a quality that they tend, in turn, to instill in their students. Here is how one Grade 12 student explained it:

• I think the teachers who do best and who are most likeable, especially with high school students, are people who are really flexible and have lots of confidence in themselves.

Although students clearly liked teachers who had a sense of humor, they were adamant that the ability to joke around was, in itself, not enough. They noted that teachers need to balance humor with an ability to nurture learning. Here is how one student put it:

• Find a balance. Some teachers automatically know what to do, like, they're nice and they're fine and funny, and they also make you work. . . . That's what makes you do your homework and makes you want to learn. Teachers have to be nice and fun but they also have to be able to set some guidelines.

2. Teachers need to know their subject

Several students, especially those in Grade 12, attributed their lack of success in learning to teachers who didn't appear to know their subject well. It is important to note that some of these students were enrolled in the new mathematics curriculum and that what they may have been picking up was their teachers' unfamiliarity with, or lack of confidence in, the new mathematics curriculum. The context of these comments notwithstanding, they nevertheless illustrate the complexity of the student-teacher relationship and the fact that the teacher can affect the student's experience of the curriculum. Over a century ago, John Dewey, commenting on this relationship, remarked that, in a very real sense, the teacher stands between the student and the curriculum. 49 He maintained that a teacher has the difficult task of bringing together the world of the child (or, in this case, the adolescent) and the world of the curriculum. As he noted, the subject matter itself does not teach. However, the teacher does not teach either unless he or she can combine a knowledge of the subject matter with an understanding

of the student. The result is the kinds of embodied learning discussed earlier.

Although they may not have been consciously aware of it, many students, in remarking on teachers who are not knowledgeable about the subjects they are teaching, were tuning in to the challenge posed by Dewey. Here is how one student described his frustration with ill-prepared teachers:

• Some of our teachers do not have the ability to teach us what we are supposed to know because they do not understand it either.

In their comments, students emphasized that it is not enough for teachers to know the subject matter. Equally important is the fact that they must be able to relate the content to students, as these comments illustrate:

- He knows his material; he's good at controlling the class without strictness. He doesn't get mad and throw things, but he has boundaries. He's not boring, doesn't drone, and he's personable.
- [A good teacher is] someone who has his/her own ideas, makes up creative things that he thinks the students will learn, and actually teaches you the stuff, so you know the important stuff.
- Teachers have to do something that interests students because we aren't going to sit and read from a textbook all class. . . . If it's interesting we'll think about it later and remember what we have learned.

We want our teachers to like their jobs! (Grade 12 student)

3. Teachers need to be tolerant of others' beliefs

One unanticipated finding of the study was the extent to which students are put off by teachers who let their own beliefs get in the way of their teaching. Here is how two of the students made this point:

- Teachers pushing a political agenda: racism, feminism, homophobia, more pay! These may be good causes, and it's the teacher's job to prevent harassment, but their own opinions should not affect how they teach or what they teach.
- Teachers have to keep most of their opinions to themselves because they will affect the student. I had a social teacher who, right after September 11, was telling us his opinions about what he thought was going to happen, and of course it never happened, but you go home and think about it and question it. . . . Things like that are scary! And I think teachers need to give kids reassurance even if it might not be true because when they are older than us [they need to provide comfort to us].

[A teacher] is a real person. (Grade 9 student) The fact that students resent teachers who promote their own views is related to the earlier observation that teachers need to give students space to learn and discover for themselves. As one student put it, "When teachers leave no room for different perspectives within the classroom, students feel unconfident and annihilated." This view was tempered by the comments of other students who appeared to have no objection to teachers sharing their views. In the words of one Grade 9 student, "teachers should be real people." Another student had this to say:

• The attitude for a teacher to be open to ideas, . . . that's really important; . . . you have to open to every student and their different ways of doing things.

Interestingly, in discussing the strengths and weaknesses of their teachers, many respondents also recognized that succeeding in school meant taking responsibility for their own learning. It is, perhaps, for this reason that students spoke so positively of teachers who gave them an opportunity to express themselves and who encouraged them to tackle difficult questions and issues. The importance of exercising agency as a learner was nicely summarized in this comment from a Grade 9 student:

• I think students need to learn to open their minds and allow new ideas to be presented. A creative imagination would be a good skill. Also I think students have to be determined.

4. Learning is enhanced when a teacher shows care and respect

In talking about the factors that facilitate learning, many students commented on the importance of having, as one student put it, "someone who cares about what you're learning." As mentioned earlier, what differentiates teacher-student relationships from other adult-child relationships is, at least in part, the teachers' responsibility for imparting knowledge and skills to the students. Therefore, the caring that characterizes a teacher-student relationship is, at least on one level, a concern about what the student is learning.

In their descriptions of the "caring" teacher, students also clearly had in mind another quality, namely, the ability of the teacher to regard a student as a person. In her work on the ethic of care, Nel Noddings notes that a caring relationship is one marked by a deep regard for the well-being of the other person such that the care-giver assumes responsibility, in a very practical way, for the well-being of the person being cared for: "The one caring, in caring, is present in her acts of caring . . . engrossment in the other, regard, desire for the other's well-being." The comments of a Grade 12 student capture something of what Noddings means by care:

• Teachers [sort of being like parents, care when] they care about everything we are doing and in that way they know what we are doing, and how we are doing; . . . it gives us motivation.

Another student wrote that "caring is that [teachers] should want to be there to help us out; that is their job." Others expressed a sense of loss at what they sensed to be a missing element in their relationships with teachers:

- I don't know, . . . it kind of feels like we didn't get what we were supposed to get out of school. . . . Some teachers just kind of don't care and others care too much.
- A teacher who doesn't care, as well as students [who don't]. A teacher who speaks in a monotone; . . . also a teacher who feels like he's just there to get paid and they only do what they are supposed to do, nothing extra for the student.
- A teacher's inability or refusal to help and their haste in labeling (judging) each student. The students' inability to voice their need to help also can get in the way of successful learning.
- You have to be a people person because if you do not like people then you are not going to like teaching and being around people all day.
- The teacher should help you as an individual, not as one member of a whole class. . . . I think if they get to know you, if they get to know your style of learning then they will help you because then you become more capable of seeing stuff and learning.

The teacher must teach. It is necessary to do it. But teaching is not transmitting knowledge. For the act of teaching to be constituted as such, the act of learning must be preceded by or concomitant with the act of learning the content or the knowledge object, with which the learners also become producers of the knowledge that was taught to them. (Paulo Freire)48

Still other students commented that caring student-teacher relationships are marked by a sense of respect. As one student explained, a teacher who shows respect "actually looks you in the eyes and actually tries to listen." Another student put it this way: "I think [teachers] should never make someone feel stupid." A Grade 12 student offers an even more elaborate description of a teacher for whom she had a great deal of respect:

She knew, like our weaknesses and she told us you know, she'd keep us
on task, but she would give us that option to do what we felt needed to be
done.

B. Making Sense of the Relationships Between Teaching And Learning: An Emerging Project

Linking Trying to Teach, Trying to Learn to broader educational issues

Trying to Teach, Trying to Learn is not a complete story, by any means. From the outset, researchers assumed that, in relating their experiences of learning, students would inevitably express concerns about the educational system—about both the curriculum and teaching practices—as it currently exists. However, participants also clearly had something important to say about education and the practice of teaching.⁵²

In some ways, *Trying to Teach*, *Trying to Learn* may be read as a follow-up to two earlier ATA studies, *Trying to Teach* (1993) and *Falling Through the Cracks* (2002), both of which documented teachers' concerns about teaching conditions in Alberta's classrooms. How, we might ask, have those conditions and the overall pressures facing schools and teachers in the province affected the lives of students? Is there, for example, a relationship between these background conditions and what students report about feeling crowded, rushed, uneasy about the curriculum and uncertain about the purpose of learning?

Linda McNeil has written about the negative effects of an overemphasis on certain forms of standardized testing. She provides evidence that such an overemphasis can have a number of unintended consequences—what she calls "collateral damage"—including "defensive teaching," in which teachers focus on what is likely to be tested, thereby constricting students' learning experiences.⁵³ Other researchers have recognized that "high-stakes testing" may be detrimental to meaningful learning.⁵⁴

Students in the current study reported both good and bad learning experiences. Are any of the bad experiences evidence of "collateral damage?" Are the more stressful working conditions that teachers now face affecting the learning experiences of students? These are certainly possibilities for further inquiry.

2. Trying to Teach, Trying to Learn: an emerging story

As stated earlier, *Trying to Teach*, *Trying to Learn* is an exploratory study designed to demonstrate the value of having students describe their learning experiences in schools. Students' responses clearly demonstrate the complexity of the relationships between teaching and learning.

Although the study did not attempt to address directly the many other factors besides learning conditions that affect students' day-to-day lives—factors such as gender, socioeconomic status, race, culture, sexual orientation and family life—they nevertheless influenced what students had to say. A sequel to this study could focus more specifically on these factors by looking not only at how they affect students' experiences of time, relationships, embodiment, space and pedagogy but also at whether they constitute barriers or opportunities for students.

Because of time constraints and ethical considerations, researchers were unable to follow up on such student stories as the one below, which could have provided additional insight into the effect on students' lives of such factors as gender, cultural identity and socioeconomic status:

• Not to be offensive, but our school is run by hockey players. They are loud, arrogant and ignorant. They make fun of everyone who isn't "cool" and carry every STD known. They stand along the walls of the hallway and intimidate people. In Grade 10, I would be late for class taking the longest route possible to avoid them.

For the purposes of this study, the analysis of such stories was restricted to what they could tell us about the participants' lived experiences with respect to relationships, space and self-awareness. Another issue left for further inquiry was the effect of part-time work on high schools students.

In these and other areas, the researchers hope that *Trying to Teach*, *Trying to Learn* will provoke educators to explore further what students have to say about their experiences in schools.

I wanted to do something about the school system for a while because it's been ineffective; I want to do what I can to change it. I want to learn. Make it more responsive to students. There are ways in which I feel like a man who has been passed by. (Grade 12 student)

3. The fundamental importance of the teacher-student, teaching-learning relationship

In Teachers As Cultural Workers: Letters To Those Who Dare To Teach, the late Paulo Freire wrote:

The problems of teaching imply educating and furthermore, educating involves a passion to know that should engage us in a loving search for knowledge. That is—to say the least—not an easy task.⁵⁵

Probably the most important message to emerge from *Trying to Teach*, *Trying to Learn* is that students' experiences of learning are directly related to the quality of the teaching they receive. This finding gives even more credence to Freire's observation that "teaching is a difficult task about which we should think constantly." ⁵⁶

If teachers could relate much better, they could teach better; that would make it easier to learn.
(Grade 9 student)

Some of the conclusions to emerge from this study are probably things that teachers and parents already know from practical experience and from reading the literature. However, listening to students provides a fresh perspective. For example, some research has suggested that class size does not directly affect student achievement. However, the experiences that students related about the lack of individual attention and of opportunities to interact with teachers on a meaningful level suggest that class size *does* make a difference in important ways that narrow measures of achievement may not detect.

This study serves as a reminder to educators of the need to listen to students' voices in deliberating such matters as what constitutes adequate support for schools, the values of public education, and the characteristics of good curriculum and learning.

Even though it focused on the voices of students, the study also had a lot to say about teachers and teaching. Indeed, it challenges us to ask such questions as "What is good teaching?" and "What are the characteristics of a good teacher?" Without question, the study has demonstrated that teaching involves much more than using certain methods and materials to get students through a curriculum. Donald Schön, an early advocate of the idea that teachers should be "reflective practitioners," has argued that the practice of teaching is about much more than technique:

How comes it is that in the second half of the twentieth century we find in universities, embedded not only in men's minds but in the institutions themselves, a dominant view of professional knowledge as the application of scientific theory and technique to the instrumental problems of practice?⁵⁷

As the students' stories demonstrate, good teachers are those who posses not only the requisite knowledge and skills but also the ability to relate to students in ways that takes into account their particular needs and interests with respect to each aspect of learning that we have examined: temporal, relational, embodied and spatial. To do this successfully, teachers require a special kind of practical wisdom or judgment, a quality that Aristotle called "phronesis." Joseph Dunne describes phronesis as follows:

The crucial thing about phronesis . . . is its attunement of the universal knowledge and the techniques to a particular occasion, so that they are deployed in relation to "the right person, to the right extent, at the right time, with the right aim, and in the right way . . . [which] is not for every one, nor is it easy."⁵⁸

Although focused on students' experiences, *Trying to Teach*, *Trying to Learn* sheds some light on what constitutes a good teacher and good teaching practice. It also demonstrates how important the practice of good teaching is in the lives of students. Furthermore, it reinforces the importance of creating classroom conditions that allow good teaching and good learning to flourish. Many of the conditions that students identified as being important for learning correspond to what teachers have described in *Falling Through the Cracks* and other documents. Decisions about education funding should be driven not just by budgetary considerations but also by an understanding of the profound effect that classroom conditions can have on students' ability to learn and to succeed in school.

The teacher is engaged, not simply in the training of individuals, but in the formation of the proper social life. (John Dewey)⁵¹

The study highlights the crucial importance as well as the fragile nature of the teacher-learner relationship. It also offers some insight into what makes the relationship work. The study is also a reminder of the importance of attending to lived experiences and of paying attention to "the particular occasion." It also demonstrates both the difficulty and the joy of engaging students in terms of their own worlds and their own understandings. Listening to students is crucial to good teaching practice and is part of the deep responsibility that educators have for the young. Hannah Arendt sums up that responsibility as follows:

Education is the point at which we decide whether we love the world enough to assume responsibility for it and by the same token save it from that ruin which, except for renewal, except for the coming of the new and young, would be inevitable. And education, too, is where we decide whether we love our children enough not to expel them from our world and leave them to their own devices, nor to strike from their hands their chance of undertaking something new, something unforeseen by us, but to prepare them in advance for the task of renewing a common world.⁵⁹

C. Further Implications and Recommendations

Trying to Teach, Trying to Learn is not easily translated into a set of prescriptions for those responsible for education in Alberta. However, its implications for educational practice can be grouped into two general categories:

1. Focusing on the relationship between teaching and learning in advocating for good conditions in schools

Trying to Teach, Trying to Learn needs to be considered in conjunction with two other studies that the ATA has published on the topic of teaching and learning conditions: Improving Public Education: Supporting Teaching and Learning⁶⁰ and Falling Through the Cracks⁶¹. What teachers had to say in these two documents on such topics as class size and the importance of fully connecting with individual students is reinforced by students' stories in the current study.

The study demonstrates the crucial importance of the teaching-learning relationship in general and of the teacher-student relationship in particular.⁶² It follows, then, that efforts to obtain better classroom conditions should focus on the aspects of teaching and learning that engender successful experiences for students.

2. Focusing on the experiential and social contexts of teaching and learning: recommendations for ongoing inquiry

In *Improving Public Education: Supporting Teaching and Learning*, the ATA points out that any meaningful discussion of teaching and learning should take into account the larger social context as well as the lived experiences of students and teachers. *Trying to Teach, Trying to Learn* took up that challenge by documenting the lived experiences of Grades 9 and 12 students. But it is just a beginning. Hopefully, it will prompt other educators to examine teaching and learning in their schools in related ways.

The following suggestions for further study are intended to foster the kind of teaching and learning conditions that, if put into place, would help to make learning the joyful and productive experiences that so many students imagined it could be.

- 1. Several studies are currently underway in Alberta that may shed light on how a student's cultural background affects his or her ability to learn. 63 However, more work needs to be done on how other issues such as gender, socioeconomic status and place of residence (rural versus urban) affect students' identities and their ability to learn. 64
- 2. Further studies are needed into the kinds of learning experiences that stimulate learning in various subject areas.⁶⁵ What, for example, engages students in social studies? What sparks students' interest in reading or mathematics? What, besides good test scores, constitutes a successful learning experience?
- 3. How students' placement in school—that is, whether they are in integrated, academic or nonacademic streams—affects their experience warrants further study. Such studies should include students in various grades, students who have recently completed school and students who have not succeeded well in school or have dropped out.⁶⁶
- 4. Additional classroom-based action research is needed to gather input from students on such topics as what constitutes a good student project, whether group work is ever preferable to individual learning and how to focus on the individual needs of learners.
- 5. What students had to say in this study about good teaching needs to be examined with a view to using it to improve teaching practice. Through ongoing professional development, teachers could be shown how to exercise judgment in adjusting their methodology to address particular situations, students and subject areas. Much recent research on teacher education and teacher development has stressed the importance of encouraging teachers as professionals to inquire into the nature of teaching and schooling.⁶⁷
- 6. What this study demonstrates about the complexity of the relationship between teaching and learning and the need for teachers to adapt their practice to specific situations⁶⁸ has implications for both the theoretical and the field experience components of teacher preparation programs.⁶⁹

Notes and References

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- ¹⁹ Croninger, R. and Lee, V. (2003). "Social Capital and Dropping Out of High School: Benefits to At-Risk Students of Teachers' Support and Guidance," *Teachers College Record* 103 (no.4): 548-81. This article reports on a longitudinal study that shows the beneficial effect on students, especially those at risk, of teachers' direct guidance and support, something that the authors refer to as "social capital."
- 20 Ibid.
- ²¹ Lave and Wenger, op. cit.
- ²² van Manen, Researching Lived Experience, pp. 104-05.
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- ²⁴ Duarte, Eduardo. (2001). "The Eclipse of Thinking: An Arendtian Critique of Cooperative Learning," in Gordon, M., ed., *Hannah Arendt and Education. Renewing Our Common World*. Boulder, Colorado: Westview, pp. 201-24. In this article, Duarte contends that cooperative learning is overemphasized in current educational practice and that students should have more solitary time.
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- 30 Lakoff and Johnson, op. cit., p. 102.
- ³¹ The Delors Report argues forcibly for the view that learning ought to include learning how *to do* as well as how to know, to be, and to be with others. See Delors J., et. al. (1996). *Learning. The treasure Within: Report to UNESCO of the International Commission on Education for the Twenty-first Century.* UNESCO Publishing.
- ³² For a good introduction to the relationship between understanding and application see Gadamer, H-G. (2001). "Hermeneutics" in Palmer, R., ed. and tr., Gadamer in Conversation: Reflections and Commentary. New Haven and London: Yale University Press, pp. 36-60.
- 33 Varela (1999), op. cit.
- ³⁴ Ricoeur, P. (1992). Oneself as Another. Chicago and London: The University of Chicago Press.
- ³⁵ Ricoeur. P. (1998). Critique and Conviction. Conversations with Francois Azouvi and Marc de Launay. (tr. by K. Blamey). New York: Columbia University Press, p. 89.
- ³⁶ Varela, et. al. (1993). op. cit., p. 149.
- ³⁷ Lave and Wenger, op. cit., p. 33

- ³⁸ Varela, et. al. (1993). op. cit., p. 149. University of Calgary professor Bonnie Shapiro has also written about learning in these terms, especially with reference to science. This book is also a good introduction to the constructivist approach to teaching and learning. See Shapiro, B. (1994). What Children Bring to Light:
 A Constructivist Perspective on Children's Learning in Science. New York and London: Teachers' College Press.
- ³⁹ van Manen, Researching Lived Experience, p. 102
- ⁴⁰ Schwartz, W. (2003). "Class Reduction and Urban Students." ERIC Digest, no. 182. This issue of the ERIC Digest summarizes recent research concerning the effect of reducing class size.
- ⁴¹ van Manen, Researching Lived Experience, p. 102
- ⁴²See Max van Manen. (1991). *The Tact of Teaching. The Meaning of Pedagogical Thoughtfulness.* London, Ontario: The Althouse Press.
- ⁴³ Using dialogue to foster understanding is, of course, not a new idea. The dialogues of Socrates are often cited as the ideal example of such learning. Many contemporary writers have also pointed out the important role that dialogue plays in fostering understanding. Paulo Freire, for example, regarded dialogical learning as a more genuine form of learning. The German philosopher Hans-Georg Gadamer regarded conversation and questioning as foundational to the development of understanding.
- ⁴⁴ Nussbaum, M. (1997). Cultivating Humanity. A Classical Defense of Reform in Liberal Education. Cambridge, Massachusetts and London: Harvard University Press.
- ⁴⁵ Duckworth, E. (1996). *The Having of Wonderful Ideas*. New York: Teachers College Press.
- ⁴⁶ See, for example, Davis, Brernt; Sumara, Dennis; and Luce-Kapler, R. (2000). Engaging Minds: Learning and Teaching in a Complex World. Lawrence Erlbaum Associates, Publishers. Davis and Sumara, who teach in the department of secondary education at the University of Alberta, are recognized for their work in the areas of enactivism and complexity theory.
- ⁴⁷ Young, J. and Levin, B. (2002). *Understanding Canadian Schools. An Introduction to Educational Administration*, 3rd ed. Scarborough, Ontario: Thomson/Nelson, p. 213-14.
- ⁴⁸ Freire, P. (1998). *Teachers as Cultural Workers: Letters to Those Who Dare to Teach*. Boulder, Colorado: Westview Press, p. 89.
- ⁴⁹ Dewey, J. (1964). "The Child and the Curriculum" in Archambault, R., ed., *John Dewey on Education*. Chicago: The University of Chicago Press, pp. 339-58.
- ⁵⁰ Noddings, N. *Caring. A Feminine Approach to Ethics and Moral Education*. Los Angeles: University of California Press, 1984.
- ⁵¹ Dewey, J. (1964). "My Pedagogic Creed" in Archambault, R., ed., *John Dewey on Education*. Chicago: The University of Chicago Press, pp. 27-39.
- 52 Stephen Kemmis writes about the importance of recognizing the "lifeworld" qualities of schools, which can be lost when institutional qualities become dominant. He argues that seeing students as communicating, whole persons offers some hope of recovering the more transformative purposes of education. See Kemmis, S. (2001). "System and Lifeworld, and the Conditions of Learning in Late Modernity." http://www.edu.helsinki.fi/ktl/kemmis.htm.
- ⁵³ McNeil, L. (2000). Contradictions of School Reform. Educational Costs of Standardized Testing. New York and London: Routledge, p. 189.

- ⁵⁴ Flores, B. and Clark, E. (2003). "Texas Voices Speak out About High-Stakes Testing: Preservice Teachers, Teachers, and Students." Current Issues in Education. http://cie.ed.asu.edu/volume6/number4.
- ⁵⁵ Freire, P. (1998). Teachers as Cultural Workers. Letters to Those who Dare to Teach. Boulder, Colorado: Westview Press, p. 4.
- ⁵⁶ Freire, P. Ibid., p. 62.
- ⁵⁷ Cited in Dunne, J. (1997). Back to Rough Ground. Practical Judgment and the Lure of Technique. Notre Dame: Notre Dame University Press, p. xv.
- ⁵⁸ Ibid., p. 368
- ⁵⁹ Arendt, H. (1993). "The Crisis in Education" in *Between Past and Future: Eight Exercises in Political Thought*. New York: Penguin Books, p. 196.
- ⁶⁰ The Alberta Teachers' Association. (2002). *Improving Public Education: Supporting Teaching and Learning*. Edmonton: The Alberta Teachers' Association.
- ⁶¹ See The Alberta Teachers' Association. (2002). Falling Through the Cracks: A Summary of What We Heard About Teaching and Learning Conditions in Alberta Schools. Edmonton: The Alberta Teachers' Association. See also The Alberta Teachers' Association. (2002) Falling Through the Cracks: What We Heard About Teaching and Learning Conditions in Alberta School: Representative Submissions. Edmonton: The Alberta Teachers' Association.
- 62 Croninger, R. and Lee, V. op cit.
- ⁶³ The work of researchers associated with the Prairie Centre for Excellence in Research on Immigration and Integration may be helpful here. For example, Terry Carson and some of his colleagues in the Department of Secondary Education at the University of Alberta are researching the experiences in school that help students to form an identity. Yvonne Hebert and some of her graduate students at the University of Calgary have been studying spatial experiences and cultural identity in Calgary schools.
- ⁶⁴ An exemplary study focusing on the experiences of female students was conducted by the Canadian Teachers' Federation. See A Cappella: A Report on the Realities, Concerns, Expectations and Barriers Experienced by Adolescent Women in Canada. Ottawa: Canadian Teachers' Federation.
- ⁶⁵ An example of research that focuses on listening to what students have to say about their experiences in learning a particular subject area is Duckworth, E. (2001). *Tell Me More: Listening to Learners Explain*. New York: Teachers' College Press.
- 66 Croninger, R. and Lee, V. (2003). "Social Capital and Dropping out of High School: Benefits to At-Risk Students of Teachers' Support and Guidance." Teachers College Record 103 (no. 4): 548-81.
- ⁶⁷ Goodlad, J. (1994). *Educational Renewal. Better Teachers, Better Schools*. San Francisco: Jossey-Bass Publishers.
- ⁶⁸ See, for example, Korthagen, F., et. al. (2001). Linking Practice and Theory. The Pedagogy of Realistic Teacher Education. Mahway, New Jersey: Lawrence Erlbaum Associates, Publishers. The authors argue that student teachers need to develop the ability to focus on the "realities" or lived experiences of students and classroom conditions.
- ⁶⁹ Dunne, J. (1997). Back to the Rough Ground. Practical Judgment and the Lure of Technique. Notre Dame: University of Notre Dame Press. Dunne presents an extensive philosophical argument for understanding teaching as a form of practical judgment rather than technique.