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I'm very pleased to present the Graduate Student Symposium Papers, Volume 5. This edition of the biennial collection of symposium papers marks a decade of tradition that began in 2000-2001. Since its inception, the annual symposium has been an important venue for students at the Faculty to present their work. Over the years, participation from other faculties and universities has grown, and the 5th Volume of selected papers reflects how the symposium now extends far beyond the walls of West Campus. Papers from students at Queen’s, Ottawa, and York universities are featured, and graduate students from across Canada have served as peer reviewers. Another step has been the move to an online version of the proceedings; now these papers can be accessed from around the world.

This volume marks the successful collaboration of many people in the Faculty of Education at Queen’s and beyond. Thank you to the reviewers for their valuable feedback and insights, and to the support of Marlene Sayers, Cory Laverty, and Sam Kalb. A special thank you to Vicky Arnold who has done a wonderful job of collating and formatting the papers, and to Associate Dean Rebecca Luce-Kapler who has supported and guided this edition from start to finish.

Finally, congratulations to the authors! Your papers represent a range of ideas and approaches, and reflect different stages of graduate student development. It was my hope that this edition would feature pieces that would both encourage students who are just beginning graduate work as well as inform those who are further along in their scholarship. May there be something for everyone.

Marcea Ingersoll, Editor
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A PHENOMENOGRAPHIC APPROACH TO STUDENTS' ALTERNATIVE CONCEPTIONS OF ELECTRICAL CIRCUITS
King Luu

ABSTRACT
This study examined the variety of alternative conceptions that students have regarding electrical circuits using a phenomenographic approach. Five graduate students completed a questionnaire and simple activity relating to electrical circuits. The questionnaire involved describing terms that are commonly covered in electrical circuits, and drawing a simple circuit involving a piece of copper wire, a battery, and a light bulb. Participants were then instructed to create a circuit using these materials and to describe the thoughts they were experiencing while completing this activity. These data formed the basis for a conversation-style interview with the participants. A phenomenographic approach was then used to create an outcome space for these conceptions, which were organized into a hierarchy. It was found that every participant conceived his or her electrical circuit in a different way. Although the level of physics education may have influenced the way in which participants completed their circuits, the nature of activities that their instructors chose to present in class may also have shaped their descriptions of how the circuit worked, as did their own real-life experiences.

INTRODUCTION
This study examined alternative conceptions of electrical circuits held by graduate students with different levels of physics knowledge, to qualitatively make connections between their experiences and the conceptions they hold, in order to understand the difficulties students have with this topic.

Physics education research has focused on studying how exactly students learn physics; one of these topics is to identify the conceptions they hold about the physical world and how they are altered as a result of various methods of instruction (Knight, 2004). Knight states that students' personal experiences exploring their physical world during their lifetime have resulted in common-sense theories that may be “satisfactory for their day-to-day existence” (p. 26); these conjectured beliefs are termed al-
ternative conceptions. Knight describes three characteristics of alternative conceptions: (1) they are strongly held beliefs by the students, used to explain and predict phenomena and are resistant to change; (2) they are incompatible with the explanations provided by physicists; and (3) they need to be altered or eliminated if students are to “achieve a satisfactory understanding of physics” (p. 26).

Unfortunately, the instructional approach taken by certain teachers and professors in the classroom does not help to address these alternative conceptions. Prosser and Trigwell (1998) identify a range of different conceptions of teaching and learning, from teacher-centred (i.e., teacher as presenting information) to student-centred (i.e., teacher as bringing about conceptual change). In the former, the emphasis is on facts and skills, but not on the relationships between them, and students are not actively engaged in the teaching-learning process; whereas in the latter, teachers are helping students change the way they see the world or the alternative conceptions they have. It is the students who need to reconstruct their knowledge in order to “produce a new world view or conception” (p. 154).

Prosser and Trigwell (1998) describe a relationship between students’ perceptions of their learning environment and the approach they take within that class. They state that students who perceive the workload demands of a subject to be high, and perceive the nature of the assessment as encouraging recall of facts and bits of information are more likely to adopt a surface approach. However, when a choice is given in what there is to be learned, the teaching is of a high quality, and there are clear goals and standards for what is to be learned, then a deep approach is likely to be taken. Bernhard, Carstensen, and Holmberg (2007) found that alternative conceptions remain even after studying physics at the university level; as a result, students have difficulties making connections between science and engineering concepts that would allow them to better apply models and theories to the real world of objects and events.

Meyer and Land (2006) have described troublesome knowledge as that which is not thoroughly understood by students; as a result, the knowledge diminishes and “[does] not serve them beyond the compass of the course and its superficial
credentials” (p. 37). Troublesome knowledge is characterized into five categories: ritual knowledge, inert knowledge, conceptually difficult knowledge, foreign or alien knowledge, and tacit knowledge. In ritual knowledge, teachers unintentionally alter the meaning of a concept in order to make it more understandable for the students. The students, who may still have difficulties, set out to learn this form through mimicry (as a ritual), and therefore do not progress to a thorough understanding. Inert knowledge is not contextualized, and therefore not integrated into a form that can be used. Perkins (2006) states that conceptually difficult knowledge consists of a mix of misimpressions from everyday experience, reasonable but mistaken expectations, and the strangeness and complexity of scientists’ view of the matter. In other words, the scientifically understood explanation for a concept, the ritualized form presented by teachers and learners’ everyday experiences are all acquired, but it is the latter that predominates outside the classroom. Related to conceptually difficult knowledge is alien knowledge, described as counterintuitive to the learner, as it conflicts with his or her own knowledge. Perkins (in Meyer and Land) describes tacit knowledge as troublesome, since understandings are shared within a community of practice (Wenger, 1998) but subtleties exist that are not conveyed to those outside the community. Thus, newcomers that have not been exposed to these nuances have trouble grasping the meanings of these shared understandings. Finally, closely related to tacit knowledge is troublesome language: terminology in specialized fields may have different connotations in other fields, thereby posing problems with communication. Meyer and Land also note that when a person is not familiar with the language, it may adversely affect the content that is described by the language.

According to Posner, Strike, Hewson, and Gertzog (1982), when a learner encounters a new phenomenon, he or she relies on knowledge to organize his or her investigation. This can take the form of assimilation, where existing concepts are used to handle this phenomenon; or accommodation, where the concepts are inadequate to allow the learner to successfully grasp the new phenomenon. The latter is what results in alternative conceptions. Accommodation is a “gradual adjustment in one’s concep-
tion, each new adjustment laying the groundwork for further adjustments but where the end result is a substantial reorganization in one’s central concepts” (p. 223). If the concept becomes counterintuitive during the progress, it may result in students’ retention of their alternative conceptions.

Phenomenography is a qualitative, inquiry-based method that focuses on how human beings “make sense of experience and transform experience into consciousness” (Patton, 2002, p. 104). Marton and Booth (1997) state that the purpose of phenomenography is to focus on the variation in experiences across a group of learners, whereas the human experience of these learners is the essence of the variation that defines the phenomena. Sonnemann (as cited in Patton) describes it as a “descriptive recording of immediate subjective experience as reported” (p. 482). The different ways that learners experience the problem have a relationship to each other, and can be organized into categories of description that group aspects of the phenomenon and the relationships between them; they form a complex called the outcome space (Marton & Booth, 1997). There are two levels of description of the situation in phenomenographic research – the first-order perspective focuses on the way that the learner experiences the world, whereas in the second-order perspective it is the underlying ways in which the learner experiences the world (Marton & Booth). These perspectives will “be judged in the light of other statements about relevant phenomena . . . as to whether they seem to be valid, consistent, and useful statements” (p. 119). These different notions that learners have can be examined by studying the variations in how they approach a scientific concept.

According to Marton (in Orgill, 2007), questions about learning can be approached in two ways, either (a) by orienting ourselves towards the world and making statements about it (i.e., the focus is on the study of the phenomenon itself), known as the first-order approach; or (b) by orienting ourselves towards the ideas and experiences of others (i.e., the focus of the study is on how people experience a given phenomenon), the second-order approach. In phenomenography, the participant’s use of language is important in order to make his or her accounts of the experience and conceptions accessible to the researcher (Marton
The assumption of phenomenography is that “conceptions are the product of an interaction between humans and their experiences with their external world” (Orgill, 2007, p. 134). Based on this assumption, the objective of this research is to use a phenomenographic approach to examine alternative conceptions of electrical circuits taken by graduate students from different backgrounds, and to describe and relate the experiences that led them to accommodate these conceptions.

**METHODOLOGY**

The Marton and Booth (1997) method of conducting phenomenographic research was followed in this study. Phenomenography was used in order to gain an understanding of how students with different levels of education approach a problem on electrical circuits. The first step, data collection, begins when the learner is involved in learning about a particular phenomenon, in a specific situation.

Five participants were selected for this study using convenience sampling. All were graduate students at a Canadian university. Four of these students were from the Faculty of Education; one was from the Department of Sociology. One education student had no education in physics beyond middle school; the rest had taken at least one course in physics at the secondary or post-secondary level, although none of them were physics or engineering majors. Trigwell (in Orgill, 2007) states that samples chosen should maximize the possible variation, to be able to identify the variations within a group. Individual interviews were conducted in a conversational style, with written notes taken by the interviewer.

A questionnaire was given prior to the interview, which consisted of demographic data such as highest level of education in science or engineering and undergraduate major. There was also a section where participants defined five terms commonly encountered in electrical circuits. Knight (2004) states that students do not have a well-defined concept of current; as a result, they use the term interchangeably with electricity, or energy.

Once the participant has completed the questionnaire, he or she is presented with a situation where they apply their prior
knowledge of electrical circuits to create a diagram, described as follows:

*Imagine that you have been given a light bulb, a piece of copper wire, and a battery (dry cell). Draw a pictorial diagram that would allow the light bulb to illuminate.*

The participant is given time to complete the task, which also includes a brief explanation to justify their reasoning. Afterwards, the participant is presented with the equipment described in the situation, which consists of an ampoule (rated to 2.4 V); a 20 cm piece of copper wire, and a 1.5 V “AA” size dry cell. The participant is then instructed to assemble the equipment in the same manner as depicted in his or her diagram, to determine whether or not it works.

Participants were then engaged in a discussion with the researcher, to share their thoughts about why the light bulb illuminated (or did not). Marton and Booth (1997) describe this aspect of data collection as the learner’s state of meta-awareness, since he or she is being probed by the researcher about how the experience was produced. Through the use of semi-structured questioning, connections were sought between the definitions, the explanation of the participant’s diagram, and his or her thoughts. The questions were then directed towards each participant’s personal life experiences with electrical circuits, to better form connections to his or her experiences during the study. The questioning took place until a common understanding about the learner’s experience was attained.

**RESULTS AND DISCUSSION**

The factors that influenced the ways in which participants approached the concept of electrical circuits are summarized in Figure 1. The discussion will be integrated into this section to provide a contextual exploration and analysis of ideas. The results are based on data collected from (a) the written questionnaires, (b) the activity, and (c) the discussion with the participants.
Pre-activity questionnaire

The terms on the questionnaire relating to electricity, energy, current, voltage, and power were used as a form of activating the participants’ prior knowledge. All participants had some level of trouble distinguishing these words. For example, voltage:

Andy: “I get this confused with amps. It is quantifiable and I believe it is associated [with] the amount of cell [within] a battery, but then we see it elsewhere [with] 220 & 110 in the household.”

Brandon: “[T]he ‘amount’ (magnitude) of electrical charge.”

Clara: “Can be measured in volts it describes another characteristic of electricity.”

Emily: “[M]easurement of energy.”

Andy and Brandon are confusing voltage with current somewhat, but demonstrate attempts to incorporate scientific terminology in their responses, whereas Clara could not define the term unambiguously; Emily’s response was the simplest, but could be considered partially correct if it could be related to potential energy in a circuit, the difference being voltage. (Dawn was unable to come up with a definition.) There appears to be a relationship between the detail of the response and previous exposure to physics. In comparison, participants described current, with re-
sponses ranging from most to least complete:

Brandon: “[T]he flow of electricity.”

Andy: “Associated [with] electricity (type of electricity) created by a source (battery).”

Clara: “[C]an be measured in Amps . . . it describes a characteristic [sic] of electricity.”

Emily: “[T]he direction in which energy flows.”

Brandon and Emily identified current as the flow of something (e.g., electricity and energy, respectively); however, none of the participants mentioned electrons in their description of current, but those with a science background connected it with electricity. When asked to define electricity in written form:

Dawn: “[T]he flow of electrons through a conductive medium.”

Andy: “Type of energy I suppose. Can be created by different means to power items or accomplish tasks.”

Clara: “Is a form of energy. It is invisible. It can be generated by having turbines rotate. It can be transported using wires!”

Emily: “[P]ower generated by water or coal, used for power.”

Brandon: “[C]harges that [turn] on lights.”

In general, electricity is seen as a larger-scale application (i.e., electricity comes from power generators or fossil fuel combustion, which is then transported to households). Dawn provided a unique response that would more appropriately define current. Thus, when asked about electricity in a general context, participants relied on examples from their everyday lives to support their answers. Andy and Clara used energy in their definition, defining it as a form of energy, again, a more scientifically-informed response than Brandon and Emily. Brandon and Emily’s advanced preparation in physics may explain this difference.

In summary, there is a relationship between the quality of responses for these closely related terms, and the level of education, despite having completed the course(s) years ago. Andy, having taken the most physical sciences courses, consistently provided responses that demonstrated an understanding of the terms. Emily, with the least training, based most of her responses on the context of her life. Brandon, with high school physics, fell somewhere in between. Both Andy and Clara used the units of
measurement for current and voltage in order to differentiate the terms. (Clara had taken physics in CÉGEP, the college-level preparatory system in Quebec.) When asked about the types of learning they experienced in high school and CÉGEP, both of them mentioned a strong emphasis on mathematical calculations, rearrangement of equations and physical formulae. In their classes, they were expected to know the units of measurement, most likely in order to properly report their answers to quantitative physics problems using the correct units.

Participants’ conceptions of electrical circuits

- **Bulb as a two-terminal device.**

  **Andy:** Circuit with two points of contact on the light bulb; one on the side, one at the base (Figure 2).

  ![current direc](image)

  **Figure 2. Andy’s diagram of a circuit.**

  Explanation: The circuit needs to be fully closed for the electrons to move, and the bulb has two terminals. There is a conversion of chemical energy to thermal and electrical energy.

  Did it work? **Yes**

- **Bulb as a threshold to the electrical circuit.**

  **Brandon:** Circuit with two points of contact on the light bulb, one on each side (Figure 3).

  Explanation: Creating a close [sic] circuit so that electricity can move from [negative] to [positive] (in the battery) through the light bulb.

  Did it work? **No**
Clara: Circuit with continuous point of contact on the light bulb, twisted along the coils (Figure 4).
  Explanation: The copper wire will conduct the electricity . . . from the negative node of the battery towards the positive one. The light bulb will use the electric current to create light.
  Did it work? No

Dawn: Circuit with one point of contact on the light bulb, at the base (Figure 5).

  Bulb as a disconnected entity from the circuit.

  Explanation: What will make the light bulb to turn on is the flow of electrons from the battery . . . the circuit need [sic] to be completed for the electrons to flow back into the battery + circu-
late again to the bulb to allow it to keep lighting.

Did it work? No

- **Bulb as an attractant of electricity.**

**Emily:** One end of wire (coiled up) makes contact with base of light bulb, and the other touches one end of the battery (Figure 6).

![Figure 6. Emily’s diagram of a simple circuit.](image)

**Explanation:** The copper wire might act as a type of conductor.

Did it work? No

It can be seen that Andy, Brandon, Clara, and Dawn, each having completed at least one secondary-level physics course, recognized the need for a closed circuit in order for the light bulb to illuminate and the directionality of current flow in a circuit; however, only Andy was successful in making the bulb illuminate. Emily, with only an elementary science education, took a different approach and coiled the wire, with one end touching the battery, and the bulb with the other.

**Building a circuit**

The next part of the activity focused on having participants conceive, illustrate and construct a basic electrical circuit.

Andy’s initial reaction to the problem was that two pieces of wire were needed to create a circuit, in addition to a switch; however, after some thinking, he created one using a single piece of wire. This was not unique; other participants who recognized the need for a complete circuit also posed the same question. Perhaps this initial reaction is related to previous experiences with circuits from high school, which may have involved other
equipment in more elaborate setups (e.g., switches, sockets, multimeters). The second aspect of making the light bulb illuminate successfully is the identification of the light bulb as a two-terminal device (a threshold concept that needs to be understood, however simple it may seem).

Brandon thought that if two pieces of wire were not given, the way to circumvent this problem would be to “twist [the wire] around at the bottom where it connects [at the base of the bulb]”. Having tried this, and was unsuccessful, decided that two pieces were definitely necessary. However, when he was given the second piece of wire, with both ends making contact at the bottom, the bulb still did not light up.

Clara thought that contact needs to be made throughout the surface of the bottom, and twisted the wires along the cap. This was thought to be analogous to screwing in a light bulb into a socket, since contact is made between the energy source and the device (e.g., the light bulb).

Dawn, like Brandon, had the wire make contact with the bulb by bending it, with the formed angle touching one point at the bottom of the bulb. After one attempt, she said, “I’m going to wrap the [cap] around the wire”, and came up with an arrangement similar to Clara’s, with the same result. She was able to make the light bulb illuminate after having been given a real socket, since she remembered using that in high school.

Emily took an approach unique from the others in that it was unidirectional and was connected to only one end of the battery. She coiled up the wire (much like the spring found in the slot of battery-operated devices). She tried the positive end at first; realizing that this did not work, thought that the negative end might, but obtained the same result (i.e., the bulb did not illuminate).

**Explanation of the circuit**

After the participants assembled their circuits, they had an opportunity to explain what led them to their ideas.

Andy was asked about to provide an explanation of what was going on in the circuit, and relating them to the definitions he provided. He stated that current “was not reactionary” and therefore does not change; however, he stated that “nothing happens” to voltage after it passes through the bulb either, since it is
a series circuit. To explain what was happening, he knows that there are chemical-to-thermal and chemical-to-electrical energy conversions, but keeps thinking of kinetic energy when the term “energy” is mentioned. He states that he cannot associate kinetic energy with batteries. He also did not know how power is related to the circuit, either. Therefore, his practical approach was good, and he demonstrated an understanding of energy conversions, but he was having difficulties discerning the different forms of energy, and differentiating between energy and current.

Brandon constructed a closed circuit, but it did not work. Through his experience, he knew that current was running from “one pole to another” by the fact that his hands were becoming warm. He says that he thought the current “would go through, from the battery into the light, and then back down and pulling it along.” His explanation for the bulb’s failure to light was that the “connectivity was not as good” as that of his body, and as a result, there is no need for the current to go into the light, and instead, would pass through his arms. He thought the connectivity would improve if a second wire was added, but nothing happened. I asked what happens to the voltage as it passes through the light bulb, and he said it remains constant, like the current—it either starts or stops—and suddenly drops when the battery dies. He could not explain or describe why it did not work without the use of a socket.

Clara was similarly confused, thinking that “something is wrong . . . need two wires, somehow . . . something is missing,” because otherwise the loop could not be closed. When asked, she said that “wires run from a light switch in a home to the lamp, and there is two wires.” After she said that, she was still wondering why her hands were getting warm, even though “we don’t have a complete loop.” Then, she had a revelation: “The circuit is just going around, avoiding the light bulb . . . [it] is a resistor . . . providing resistance. It makes it harder for more energy to go through it. It wouldn’t go through the resistor if it didn’t have to.” She describes electricity as energy in the battery, in moving format. In contrast to Andy, Clara thinks that electrical energy is a form of kinetic energy.

Dawn thought that “there would be a flow of electrons, go through the wire, through the light, back to the wire, and then to
the battery.” She was another participant who stated the need for another piece of wire. She then thought, “in theory, it should have worked, unless the way I wrapped it around was just wrong . . . the electricity is conducted through the bottom on the black part, because it’s all continuous metal, so I think it should have worked.” She explains that electrical energy comes from the electrons, which originate in the battery and flows from positive to negative. She thought that the reason why the light bulb was not lighting was because there was “some sort of disconnect from the wire to the bulb that would enable electrons to flow from the wire and into the filament.”

Emily thought there was a “sidedness” to electricity--this was because her setup was not closed--and was given the opportunity to construct her design. Her rationale was based a previous project done by a graduate student on transformative learning that involved light bulbs, and the way it was arranged included “wires attached to the battery, there were a couple of wires, one went from the battery to the bulb, and the other went from the battery to this material that grounded the charge.” Thus Emily was relating it to the last time she used similar equipment, but she was unable to recall the material that grounded the charge.

In terms of electrical circuits, Knight (2004) states that lack of experience with circuits results in these alternative conceptions. There are two possibilities that I can suggest for the participants who were unable to make their setup work: either (a) their teachers did not emphasize the basics of electrical circuits prior to covering more advanced materials; or (b) students were taught the basics, however, their alternative conceptions were not completely rectified, and were still prevalent during the activity. Based on the conversations that I had with the participants, it appears that the former was more likely, based on open questioning about their instructors’ teaching strategies and a review of the light bulb circuitry that did not refresh their memories. Knight (2004) states that the transmission mode of instruction is of limited utility to students, and instructors should adopt an active learning approach instead. It is possible that the participants’ teachers in high school used a passive learning approach, and not enough emphasis was placed onto the qualitative aspects of physics.
A number of studies have been conducted to examine students’ understanding of electrical circuits, particularly those between 9 and 18 years of age (see Wandersee, Mintzes, & Novak, 1994, for a summary). The models that predominated at younger ages include: (1) single wire, where current leaves the battery and travels to one wire to a bulb (this was the view taken by Emily); and (2) clashing-currents, where electricity leaves from both terminals of the battery and travels towards the bulb (i.e., electricity is bidirectional; none of the participants used this model). These views evolved into unidirectional models at an older age. Accordingly, the participants with high school education were able to recognize this threshold concept, but not a second one based on the current flow within a light bulb.

Participants’ thoughts and experiences

The final part of each interview was completed by open questioning to have the participants describe life experiences and their education in physics, which would provide a connection between their ideas and these outside influences. (Some of them are certified teachers or planning careers as educators, and discussed some ideas relating to teaching science.)

Andy, a teacher’s college graduate, felt that although he was familiar with definitions and terminology, he wished that he had a better grasp of the topic, since teachers may have alternative conceptions of their own and rely too heavily on textbooks, since there is a “safety” in doing so. Other factors that may affect teachers’ abilities to take a deeper approach include classroom management issues and availability of time and materials.

Brandon stated that wires may work more effectively if they are covered with plastic, since it helps “bring the wires together to keep the electricity flowing . . . reducing energy loss . . . and prevents electrocution.” Thus Brandon thought that the plastic insulation increases the conductivity of the wires.

Clara recalled using a socket whenever a circuit was created in high school physics classes, and so I gave her one and asked her to explain. While she knew that a socket does not inherently power a light bulb, she explained the function of the socket as follows: “It’s what we just did, just now that the current is forced to travel across the silver surface whereas last time it depended
on how it was held.” Therefore, Clara concluded that the socket directs the current towards the light bulb, forcing it to light.

Dawn also mentioned using a socket whenever a light bulb was used in her previous courses. Similar to Clara, she thought a socket was necessary because it removes the “disconnect from the wire to the bulb [and] that would enable electrons to flow from the wire into the filament.”

Emily described several instances involving electricity. First she described the difference between conductors and non-conductors. She thought that perhaps copper “wasn’t a good conductor,” or that there was a better material. She then (inadvertently) tried to make connections between electrostatics, perhaps because of the use of the terms ‘positive’ and ‘negative’, even though there is no relationship. As a lamp is plugged into the wall, she says, “there’s some sort of current, and it moves in the direction of the light bulb, it must be the light bulb that attracts the electricity.” The negative end “stabilizes the current,” relating it to a car battery jump-starting procedure (in which she had previous experience).

Heller (in Wandereee et al., 1994) performed a study of elementary and middle school teachers’ conceptions of electric circuits and found that the majority of the teachers subscribed to the same alternative conceptions as that of their students (e.g., brightness of a light bulb depends on the current reaching it, and as more light bulbs are added, the amount of current decreases). Heller suggests that this may be caused by misinformation in their primary source for basic science information: the elementary science textbook.

Difficulties that students have include interpreting voltage as a property of the current, rather than the potential difference between two points (i.e., a change in energy), and inability to distinguish terms that appear to be synonymous (Hierrezuelo & Montero; Driver, both cited in González Sampayo, 2006). These two concepts posed trouble during this study as well to the participants, both in the definitions they provided and their explanations following the activity.

A summary of the four conceptions are presented in Table 1, along with information provided by the participants during the interview.
The order of the categories

In the four qualitatively different ways of thinking about electrical circuits, there are two features that are crucial to a complete understanding of the activity, namely (1) the need of a circuit to be closed for electricity to pass (i.e., all components must be arranged in a circular loop), and (2) the recognition of the bulb as a two-terminal device. If we regard these as threshold concepts identified by the participants, the categories could be ordered hierarchically, based on whether or not these thresholds were identified. If both thresholds were recognized, then it suggests a corresponding increase in the participants’ understanding of electrical circuits; however, since electrical conductivity is an “all-or-none” process, both thresholds need to be passed for a successful outcome (i.e., recognition of one feature alone will not make the bulb illuminate, and thus becomes an alternative conception). In the outcome space (Table 1.0), a richer understanding of the thresholds appears to be related to the participants’ experiences and the types of activities they remember doing in previous courses. A schematic diagram of the hierarchy is presented in Figure 7.

CONCLUSIONS

This study was conducted in order to find the variations in
which participants approached electrical circuits and how their experiences shaped their conceptions. Data was collected using the technique of phenomenography, which enables the researcher to examine the variations taken by participants, while also providing information to support their decisions. Thus the categories of description from this study consists of four qualitatively different ways to construct a light bulb circuit (of which only one is correct). These are: (1) a circuit where the wire makes contact with the cap of the bulb, and the battery touches the bottom of the bulb; (2) a circuit where the wire makes contact with the bottom of the bulb and the two battery terminals; (3) a circuit with the wire coiled around the cap of the bulb, and the ends touching the two battery terminals; and (4) one end of the wire touching the base of the bulb, and the other touching one of the battery terminals. Participants who had completed high school or university courses in physics recognized the need for a complete circuit; however, their understanding was still incomplete, particularly if the resistor in the circuit did not include a socket. However, level of education should not be considered a serious limitation in the study, since this concept is part of the elementary science curriculum. Participants could not explain why their initial designs would not work without a socket. The reasons they provided include: (1) the wire did not conduct electricity too well; (2) the bulb was too great of a resistor in the circuit; (3) there is a disconnect between the bulb and the wire (i.e., a socket forces the current into the bulb); and (4) the bulb did not attract the current from the battery.
The ‘experiential’ learning that participants undertook outside the classroom had an influence on the approach that they chose. One participant, who had prior experience working with circuits in other settings, admits that his teachers focused heavily on lecture-based lessons, and this was possibly due to a combination of internal and external factors, including teachers’ comfort level with the material, classroom management, and availability of equipment. Other participants had knowledge of material characterizing surface-level teaching approaches, such as definitions of key scientific terms and physical formulae, but could not explain conceptual ideas using these definitions, or qualitative descriptions of the process that is taking place within an electrical circuit. The results from this study suggest that teaching approaches need to be adjusted if schools are to prepare their students to be scientifically literate in today’s society. The results support Knight’s work in physics education research (2004), in that a lack of experience with circuits may lead to development of these alternative conceptions, and recommendations by Posner et al. (1982), who suggest that more emphasis should be given to the assimilation and accommodation processes to students learning a concept, rather than “coverage,” and that sufficient observational theory should be taught in order promote understanding of any concept anomalies.

RECOMMENDATIONS

It is important to note that although the level of education in physics for each of the participants were different, their approach to the given situation is not solely dependent on this factor, as basic electrical circuits are introduced in Grade 6 (elementary school), and the participants have had different life experiences prior to completing this activity. Therefore, the participants in this study had adopted an understanding of the concept that was not generalizable to other situations, nor one that could be recalled. Clara strongly remembers assessment measures that were heavily focused on quantitative concepts, which was substantiated by her knowledge of physical formulas during her interview. Relating Andy’s comment about teachers, perhaps they were more comfortable spending class time on material they were more familiar with (e.g., calculations), and assuming a tacit
knowledge about basic circuits that the students do not, in actuality, have. One limitation to the current study would be the activities performed in the experiment. Other studies have involved adding two light bulbs to a circuit and having participants describe what happens to the current and the voltage, and how it would affect the brightness. This would, however, have a different focus, since it would be difficult to perform this study if students did not pass the threshold of recognizing the bulb as a two-terminal device. This could be simplified by providing sockets for the light bulb. It would be interesting to conduct a similar study with Grade 6 teachers currently working professionally, in order to explore the alternative conceptions they may have, and the approaches to learning that they convey. Previous studies have been conducted with elementary and middle school teachers (e.g., the study by Heller, described briefly in the Results and Discussion section of this paper), but involved written assessments.

This study may be of interest to elementary teachers. The results suggest that it is necessary to spend time on the fundamental concepts, regardless of their simplicity; otherwise, students’ alternative conceptions may strengthen over time and become troublesome at higher levels of education. If the goal is to prepare students for a scientifically literate citizenship, teachers should strive for a deeper approach that prepares students for long-term understanding.

REFERENCES


*physics teaching*. San Francisco: Addison Wesley.
APPENDIX

Pre-activity questionnaire given to participants.

Questionnaire

1. Describe the highest level of education or training that you received related to physics or engineering.
   ___ elementary science
   ___ high school
   ___ college or university
   ___ other (please describe): _______________________

2. What was your undergraduate major?

3. Describe the following terms as best as you can. If you like, you may provide examples that would support your description.

<table>
<thead>
<tr>
<th>electricity</th>
<th>energy</th>
<th>current</th>
<th>voltage</th>
<th>power</th>
</tr>
</thead>
</table>

PLEASE COMPLETE THE QUESTIONS IN ORDER

1. Imagine that you have been given a light bulb, a piece of copper wire, and a battery (dry cell). Draw a pictorial diagram that would allow the light bulb to illuminate.

2. Add arrows and label the diagram.

Once you have finished your diagram, provide any additional information that may help describe how the light bulb is able to illuminate in your diagram.

Now, assemble the equipment in the same manner as you described in your diagram to determine whether or not your arrangement worked. If it did not work, describe the logic or rationale you were taking as you attempted this; why do you think it did not work?
School Choice Connections around the Globe and in Francophone Minority Communities in Canada: A Critical Reading of School Choice Literature
Megan Cotnam

Abstract
This article compares the tendencies that have been noted in academic literature at the international level as well as research regarding the particular school choices of Francophone families in minority settings in Canada. Research regarding school choice has focused primarily on parents’ views. This literature can be divided into the following themes: the impact of parents’ socioeconomic status, parents’ roles as consumers who “shop” for schools and the marketing strategies used to recruit parents, the influence of school choice on student achievement, the role of culture and the importance of bilingualism. In other studies, school choice is presented as a family process by focusing on parents’ influence on a child’s school choice and the importance of the student’s friends’ choices. Yet, students are rarely involved in studies focusing on school choice and so their voices are not often heard. This article highlights the need for more extensive research in Canada regarding student agency in school choice.

Introduction
This article takes a critical look at literature regarding school choice. In Canada, a better understanding of the school choice process is very relevant for the Francophone community given that French-language schools have become indispensable agents of cultural and linguistic reproduction (Deveau, Landry & Allard, 2006; Martel, 2001). Martel’s study (2001) indicates that, nationwide, only 54.4% of children who are eligible to attend French-language schools do so. There are, therefore, a large number of students who attend English-medium schools. This situation calls for a better understanding of the school choice process.

Note
1 The Francophone identity is dynamic and is therefore difficult to define. In the context of this article, the term Francophone is used in its broadest sense. It is not limited to those whose first language is French and does not exclude those with limited French-language proficiency.
number of parents who have the right to the French-language school system since the implementation of Article 23, but do not choose this system for their children. Furthermore, even when parents opt for a French elementary school, there are a significant number of adolescents who choose to leave the French-language system during the transition to high school. This is reported in French-language schools in Ontario between the eighth and ninth grades by the loss of 9.6% of the student population, or 632 students, in 2004 (Ontario Ministry of Education, 2006). However, English-language schools saw a gain of 6.5%, or 9,726 students, during this same period of transition (Ontario Ministry of Education, 2006). Yet, these statistics reveal very little as to how parents or families go about choosing an elementary or a secondary school. It is therefore important to better understand the school choice process around the globe and in Canada.

Research regarding school choice has been conducted around the world. The following literature review includes authors from the United States, Great Britain, France, Australia (Bagley & Woods, 1998; Bagley, Woods & Glatter, 2001; Bulman, 2004; English, 2009; Gewirtz, Ball, & Bowe, 1995; Goldhaber, 1999; Hirsch, 1994; Holmes, 2008; Lucey & Reay, 2002; Neild, 2009; Reay & Ball, 1998; Reay & Lucey, 2000) and Canada (Arsenault, 2008; Bosetti, 2004; CIRCUM Network, 1999; Dalley & Saint-Onge, 2008; Davies & Aurini, 2008; Deveau, Landry & Allard, 2006; DiGiorgio, 2006; Ferguson, Tilleczek & Rummens, 2005; Lamoureux, 2007; Laveault, 2006; Martel, 2001; Ontario Ministry of Education, 2006). In these countries, the options for school choice vary considerably. At times, it is a debate between private and public schools, the language of instruction, and so on. Deciding among schools with the same district or school board or from various programs offered by a school also falls under the school choice umbrella. These choices have important similarities and differences with the choice of

2 Since 1982, Francophone Canadian citizens who reside outside of Quebec have a constitutional right, under Article 23 of the Charter of Rights and Freedoms, to have their children educated in the minority language of the province or territory where they live.
a French or English-language school in Canada. Thus, this review compares the tendencies that have been noted in academic literature at the international level as well as research regarding the particular school choices of exogamous couples and Francophone students in Francophone minority communities in Canada.

The majority of the articles treated in this literature review describe school choice as a process that solely concerns parents. These writings are divided into themes such as the impact of socioeconomic status, parents as consumers shopping for schools, the influence of school choice on student achievement, the role of culture, and the importance of bilingualism for Canadian parents. Nevertheless, a small number of other works present school choice as a family process that includes the child. These articles will also be presented and are divided into two themes: the influence of parents as well as the priorities of students. This article will speak to the fact that students are rarely involved in studies focusing on school choice and so their voices are not often heard. Lastly, several conceptions regarding the future of school choice research are unveiled. The present article highlights the need for more extensive research in Canada regarding student agency in school choice.

STUDIES REGARDING PARENTS AND SCHOOL CHOICE
THE IMPACT OF SOCIOECONOMIC STATUS

The scholarly literature in the field of parental school choice indicates that parents’ socioeconomic status plays an important role in choosing a school (Bagley & Woods, 1998; Bagley, Woods & Glatter, 2001; Bosetti, 2004; Bulman, 2004; Davies & Aurini, 2008; Gewirtz, Ball & Bowe, 1995; Reay & Ball, 1998; Reay & Lucey, 2000). It also specifies that there are two categories of parents: the “active school choosers,” informed parents

3 In Francophone minority communities, the term ‘exogamous couple’ is often used when referring to a couple that is formed by a Francophone and an Anglophone. This “couple reflects Canada’s linguistic duality; it embodies the country’s two official languages and is shaped by francophone and anglophone culture” (Allard, Essiembre & Arseneau, 2004, p. 16).
who evaluate the different schools and possible programs before choosing the best option, and the “non-choosers,” those who are not informed and who send their children to whichever school they are assigned to geographically (Bosetti, 2004; Bulman, 2004, Gewirtz et al., 1995). Research indicates a significant correlation between a higher level of education as well as higher income amongst those who actively choose schools (Bosetti, 2004; Gewirtz et al., 1995), while working class parents are presented as less motivated to make a school choice (Bosetti, 2004; Reay & Ball, 1998). This is explained, in part, by their apparent insecurity as “many working-class parents appear to feel de-skilled in the choice process, as they do in other kinds of commitments with school” (Reay & Ball, 1998, p. 433). This uncertainty regarding school choice could also result from the paucity of resources available for people of the working class.

The quality and quantity of resources available to parents is unequivocally associated to their income (Bagley & Woods, 1998; Bagley, Woods & Glatter, 2001; Bosetti, 2004; Bulman, 2004; Davies & Aurini, 2008; Hamilton & Guin, 2005; Reay & Ball, 1998; Reay & Lucey, 2000). Access to a more informed social network, or increased social capital, is indicated as a crucial resource for parents when making their school choice (Bosetti, 2004; Reay & Lucey, 2000). Walberg (2007) notes that “disadvantaged sections of society rarely have the right information at the right time to enable them to make the right [school] choices” (p. 9). These families are often excluded from the school choice process because of the lack of resources at their disposal. Bosetti (2004) indicates that varied social capital amongst parents "raises the question of equal access to accurate, quality information about the choice options available as well as information that helps parents understand the learning needs and preferences of their child" (p. 400). Bosetti (2004) also takes notice of this inequality and explains that the choices parents make, and perhaps even their opportunity to choose, are affected or altered by the lack of information available to certain parents.

Reay and Ball (1998) point to another significant difference related to parents’ socioeconomic status: their priorities concerning the happiness of their child. Working class parents are more interested in their child’s immediate happiness at school; howev-
er, parents of the middle class instead refer to “a conceptualization of future happiness” (Reay & Ball, 1998, p. 439) for their children, regardless of how the child feels about the school choice in the present. Furthermore, other research (Lucey & Reay, 2002) reveals that middle class parents experience more anxiety during the school choice process than others, mainly due to a fixation on the choice of the “right” school for their child.

Ultimately, the numerous differences according to socioeconomic status listed may generate substantial consequences. Goldhaber (1999) warns that if only middle class families carry the right to choose a school, which current literature suggests (Bagley, Woods & Glatter, 2001; Bosetti, 2004; Bulman, 2004; Davies & Aurini, 2008, Reay & Ball, 1998; Reay & Lucey, 2000; Bagley & Woods, 1998), we could see even greater racial and economic segregation in schools. Furthermore, if school choice is limited to middle and upper social classes at the international level, it is important to take a closer look at this phenomenon and its impact on Francophone school populations in Canada.

Research concerning Francophones in Canada correspondingly indicates that parents’ socioeconomic status is a determining factor of school choice in their community (CIRCUM Network, 1999; Dalley & Saint-Onge, 2008; Deveau, Landry & Allard, 2006). Dalley and Saint-Onge (2008) suggest that school choice for exogamous couples is directly related to social class as parents from professional backgrounds often choose the French-language school system. Similarly to numerous renowned international researchers (Bagley & Woods, 1998; Bagley et al. 2001; Bosetti, 2004; Bulman, 2004, Reay & Ball, 1998; Reay & Lucey, 2000), Deveau et al. (2006) state that the number of resources available to parents, and their level of “social naïveté” (or “naïveté sociale”), is directly related to parents’ level of education and their professions. Middle-class parents thus have a lower level of “social naïveté” than lower-class parents. These researchers also found that a higher level of education among parents is positively associated with the choice of French-language school, as 75.5% of parents who choose French-language secondary schools have completed high school compared to 41.6% of high-school graduates who opt for schooling
in English and 43.8% who opt for an immersion program for their children (Deveau et al., 2006). In these circumstances, it is important to explore how parents shop for schools before choosing the right one.

**SHOP ‘TIL YOU DROP: PARENTS AS “CONSUMERS” AND SHOPPING FOR SCHOOLS**

Educational theorists often use the analogy of shopping for schools (Bagley & Woods, 1998; Bosetti, 2004; Davies & Aurini, 2008; Hirsch, 1994). According to these authors, the educational market “transforms parents into consumers and transforms schools into mere service providers; the student, therefore, is more or less in the same situation as a vehicle being polished in a garage” (Hirsch, 1994, p. 25, own translation). Bulman (2004) criticizes this analogy as it does not include culture as a determining factor in selecting a school, a theme that will be analyzed in greater detail in the section The Role of Culture. Furthermore, other researchers, including Lucey and Reay (2002), Reay and Ball (1998) and Tardif (1995), articulate the fact that children do not appear in most theories and analogies of school choice. The often limited role of children in school choice will be presented in the second half of this article.

According to Bosetti (2004), parents perceive school choice as a process of calculating the costs, benefits, risks and probabilities to find the solution that will ensure the success of their children. This school shopping theory is also consistent with an aggressive new relationship between parents and educators, as Davies and Aurini (2008) note in their research in Canada. According to these authors, it "alters parental relationships with public educators from mere supportive roles to more directing and even adversarial roles" (p. 55). This then has a dynamic impact on the competition between different schools, including schools in the same board. In addition, the theory of shopping for schools has been likened to the theory of social selection cited by Bagley, Woods and Glatter (2001). These authors state that "social selection involves parents selecting the human environment (pupils and staff) according to the social type (social class, ethnic mix) that they consider suits or will most benefit their child" (p. 320). This then results in segregation in schools. The term “social tar-
“getting” is also used in scholarly literature regarding schools that use multiple marketing strategies to recruit specific types of students, in particular middle class students (Bagley et al. 2001; Hirsch, 1994). Thus, the choice process seems reciprocal as schools play an increasingly active role in recruiting students.

Although many researchers focus on the process of selecting schools, Bagley, Woods and Glatter (2001) instead choose to study different forms of rejection. These researchers conclude that parents and schools alike can reject one another. Consequently, certain schools are able to do the choosing in highly competitive areas. In addition, Bagley and Woods (1998) argue that “consumer” parents, and in particular parents of children with various learning difficulties or physical disabilities, as well as the students themselves, are often marginalized in this competitive environment. Schools, on the other hand, utilize enrollment strategies to market themselves and recruit the highest number of students. The preferred way to do so is by promoting higher rates of success in national tests as well as other major evaluations (Bagley et al. 2001; Bosetti, 2004; Davies & Aurini, 2008). In accordance with the international literature, research indicates that this competitive environment is also present in the minority Francophone school milieu.

DiGiorgio (2006) explores in detail the marketing strategies that a French language school in Nova Scotia employed to recruit students. This particular school was looking to boost public support to increase student enrollment and maintain its existence. The author explains that “even though legal rights exist [re: Article 23], principals and parents of French-language schools must market their schools in order to increase numbers. Potential clients need to see that the French-language school is a better alternative for their children than French immersion or English programs” (p. 93). The researcher observes that the school implements various marketing strategies which include distributing pamphlets, creating a school website and releasing newspaper articles. DiGiorgio also notes that the school’s inclusive spirit regarding students’ various linguistic, physical and learning abilities appealed to a large number of parents. Similarly, Martel’s research (2001) explores ways to enroll more families in French-language systems across Canada. Martel claims that it is im-
important that schools inform parents about the importance of educating their children in the minority language. Thus, both DiGiorgio and Martel mark the recent interest in recruitment strategies French language schools utilize to increase their enrollments and to compete with other school systems’ marketing plans. The increase in rivalries between schools has therefore been extensively noted in the literature, but how does this competition impact students?

**GREATER SUCCESS FOR ALL STUDENTS?**

The postulation that competition between schools improves the quality of institutions, education, and therefore ensures greater success for students, is often found in school choice literature (Bosetti, 2004; Card, Dooley & Payne, 2008; Davies & Aurini, 2008, Gewirtz et al., 1995; Goldhaber, 1999, Levin, 2002). Bosetti (2004) indicates that “market theory suggests that a system of school choice will create competition among schools for student enrolment resulting in schools being more responsive to the needs and interests of parents and students” (p. 387). For instance, Card et al. (2008), in a research project conducted in Ontario, specify that when parents are open to the possibility of changing schools due to abundant competition, school systems respond in a way that can translate into the improved success of all students for provincial exams. Their research compares neighborhoods in which there are several competing schools with other areas that have fewer schools and limited potential competition. Their report indicates significantly improved performances both in third grade and sixth grade provincial assessments in the areas with high competition (Card et al., 2008). However, Goldhaber (1999) and Gewirtz et al. (1995) establish that most research in this domain focuses solely on test scores and short-term improvement when assessing students’ success. In fact, none of the studies in this review look at long-term success of students in relation to accrued competition between schools.

Furthermore, some researchers (Bagley et al. 2001; Bosetti, 2004) argue that the positive impact of competition between schools is not present for all students, but rather limits itself to students of higher social classes. Bosetti (2004, p. 400) adds that
the existing competition "does little to address issues related to equity, diversity, and social cohesion" in schools. The limited data in this area makes it difficult to confirm or refute the hypothesis of improved academic performance because of competition between schools. Furthermore, studies concerning Francophone minority communities are silent regarding this issue.

THE ROLE OF CULTURE

Several studies note the remarkable influence of culture on school choice (Allard, Essiembre & Arseneau, 2004; Arsenault, 2008; Bosetti, 2004; Bulman, 2004; Dalley & Saint-Onge, 2008; Deveau et al., 2006; English, 2009; Tardif, 1995). Yet, researchers have varying definitions of culture. Bosetti (2004) indicates that common values and beliefs were one of the most important determinants of school choice in a sample of 1,500 parents. Bosetti (2004) adds that the definition of culture is not limited to religious beliefs, but rather includes the entirety of parents’ values. In like manner, Bulman (2004) states that "culture should be seen as the fabric out of which all families make sense of education" (p. 493). He adds that one cannot assume that culture is only the ethnicity, gender, social class or religion of a person, but rather the many tools, or the "tool kit," that accompanies a person through daily life.

The literature in this domain maintains that parents who are influenced by their culture while choosing a school do so for emotional and affective reasons (Bagley & Woods, 1998; Bulman, 2004; Deveau et al., 2006). Moreover, culture is an important factor for all parents, regardless of socioeconomic status (Bulman, 2004; English, 2009) and therefore seems to be a universal factor related to choice school. In her study, English (2009) draws on Bourdieu’s work and focuses on the development of cultural capital in a school setting. The author specifies that "the right cultural capital," according to parents’ values, is a priority for parents during the school choice process. The Australian schools included in this sample are aware of this reality. English (2009) reports that these schools have conceived specialized programs which focus on the arts, music and certain sports. The promotion of such programs simultaneously works as a marketing strategy to promote the idea that children who enroll and
participate will develop more cultural capital and become exceptional members of society. Culture is therefore an important factor in parents’ school choices both internationally and in the particular case of selecting a French-language school in Canada, which will be demonstrated in the section that follows.

In research that focuses on Francophones in Canada, several researchers have discovered that cultural factors, which include common values to the Francophone minority group and a sense of belonging to the Francophone community, are among the most influential in the school choice process (Arsenault, 2008; Dalley and Saint-Onge, 2008; Deveau et al. 2006; Essiembre et al. 2005; CIRCUM Network, 1999). Arsenault (2008) explains that children’s appropriation of their parents’ cultures was a determining factor for the exogamous couple she interviewed. The researcher adds that this couple’s choice of a French-language school was based, in part, on the importance of French culture to their family. Similarly, Dalley and Saint-Onge (2008) note in their study that parents that choose the French-language school system do so because the culture and values conveyed by the school are consistent with their own. Yet, those who choose another school system do so because they do not identify with the culture projected by the French-language school. Essiembre et al. (2005) correspondingly conclude that the motivation for exogamous couples to send their children to a French language school is heavily influenced by the desire to "pass on French language, culture and francophone identity from one generation to the other" (p. 2, own translation\textsuperscript{1}). Moreover, Saint-Onge (2002) determined that culture is unquestionably the most important factor for parents who choose a French-language school.

Parents’ support for schooling in French, based on their identity and their attachment to the Francophone community, is associated with a motivation that is to a greater extent emotional and intrinsic than pragmatic (Deveau et al. 2006; CIRCUM Network, 1999; Tardif, 1995). The desire to be part of the Francophone community is thus presented as a crucial factor in the school selection process. DiGiorgio (2006) explains that schools recognize this and accordingly promote the enrichment of linguistic and cultural capital as part of their marketing strategy. Additionally, researchers from the CIRCUM Network (1999)
indicate the significant impact that culture can have on student retention. They also state that any policy that increases the sense of community among parents would increase enrollment in French-language schools. Though the role of culture is a central factor related to school choice, it appears that acquiring a second language also tops parents’ school choice lists.

**BILINGUALISM: A PRIORITY FOR CANADIAN PARENTS**

Another priority that is present both for Anglophone and Francophone parents in Canada is the importance of bilingualism for their child. Therefore, an important aspect of school choice in Canada includes immersion programs, yet this factor was not mentioned in the other international literature reviewed for the purpose of this article. Perhaps this choice is most notable in Canada, a country with two official languages, as immersion programs originated in this country in the mid-1960s (Johnson & Swain, 1997) and have spread widely and rapidly ever since. Indeed, there are a large number of Canadian couples who choose to send their children to French immersion schools. First and foremost, the goal of these programs is bilingualism. Holmes (2008) adds that “French immersion schools or discrete programs within schools for Anglophones are widely available throughout Canada, uniquely subsidized by the federal government” (p. 200) and so, the choice of an immersion program is available to all parents. However, though all parents have access to the immersion programs, Johnson and Swain (1997) note an important exception to the rule: “for the most part, French immersion in Canada has served the economic, political, and social aims of the middle-and upper-middle-class English-speaking majority” (p. 4). The research in immersion schools therefore seems to follow suit with other school choice literature which indicates that choosing schools leads to segregation of social classes. Though immersion programs widely attract English parents, Francophones are also likely to opt for this choice.

In several studies reviewed regarding the Francophone community, parents indicate that the transmission of the French language is a top priority for Canadian exogamous couples (Allard et al. 2004; Arsenault, 2008; CIRCUM Network, 1999; Dalley & Saint-Onge, 2008; Deveau et al. 2006; Essiembre et al. 2005;
Tardif, 1995). In fact, parents from Halifax, Sudbury, Calgary and Vancouver reported that a certain prestige associated with bilingualism was among the top determining factors of their school choice (CIRCUM Network, 1999). However, this same study reveals that the main reason parents choose an English school or immersion program, rather than a French-language school, is due the couple's negative perception of the likeliness that their child will master the English language while attending a French-language school, a fact that Deveau et al. (2006) also report in their study. The researchers suggest then, at the end of the CIRCUM report, that "more parents would choose the French-language school system if they believed their children would master the English language at the end of their schooling" (own translationiii). Research indicates that parents want their children to develop a balanced additive bilingualism⁴ (Allard et al. 2004; Johnson & Swain, 1997). Allard et al. (2004) state that to do so, parents should act on the following principle: "it is by focusing on the language that is most fragile in the region, therefore French, that an exogamous couple will ensure that their child shall develop a balanced additive bilingualism" (p. 12, own translationiv). This aforementioned team of researchers therefore recommends that parents select a French-language school to ensure the development of additive bilingualism for their children while living in an English-speaking community.

Dalley and Saint-Onge (2008) note that every parent in their sample discussed the importance of their child’s bilingualism, but with certain nuances. The majority of parents did not favour a greater proficiency of the French language at the expense of English-language skills, but some parents did favour acquiring English language skills at the expense of the child’s ability to

⁴“Balanced additive bilingualism, as it applies to children of francophone-anglophone couples, means that the children are highly proficient in English and French, possess a strong sense of belonging to both the francophone and Anglophone communities, enjoy a strong bicultural identity, display a positive attitude toward Francophone and Anglophone culture, and give equal social status to both languages” (Allard, Essiembre & Arseneau, 2004, p. 17).
communicate in French. These researchers also observed that the choice of an English school is not necessarily a dismissal of the French language on the part of parents or children because all exogamous couples expressed their desire for their children to be bilingual. Research conducted in minority areas thus determines that the French-language school is an environment conducive to learning both official languages. In addition, this literature reveals that French-speaking parents recognize bilingualism as an important value. Yet, priorities, and therefore school choices, vary according to parents’ preferences and concerns regarding their diversified definitions of bilingualism.

STUDIES REGARDING STUDENTS AND SCHOOL CHOICE
PARENTS JUST DON’T UNDERSTAND…

Some of the studies reviewed from various countries introduce the concept of choosing a secondary school as a family process which includes both children and parents (Hirsch, 1994; Lucey & Reay, 2002; Reay & Ball, 1998; Reay & Lucey, 2000; Tardif, 1995). In France, Hirsch (1994) concludes in his study that the extent of a youth’s participation in the choosing process is all a question of age. According to his field research, Hirsch notes that “at 11 years old, students play an equal role in selecting and at the age of 14, their opinions begin to dominate those of their parents, especially when the choice of school determines the program” (1994, p. 26, own translation’). This conclusion can also be linked to data from the Ontario Ministry of Education (2006) which indicates that the period during which most students make a school choice is during the transition from primary to secondary school, thus at the age of 13 or 14 years.

Nevertheless, other research suggests that a child’s influence on choosing a secondary school is largely determined by his/her parents’ socioeconomic status (Reay & Ball, 1998; Reay & Lucey, 2000). In two major studies conducted in England, the majority of working class parents let their child choose his or her secondary school. Reay and Ball (1998) indicate that this is linked to feelings of inferiority in regards to the educational world and the fact that these parents consider their child to be the “educational expert” of the house. Indeed, the working class children that were interviewed by Reay and Lucey (2000) “saw
their own choices as having primacy over those of their parents” (p. 89). However, most parents of the middle class ultimately made the final decision regarding secondary school. Several of the interviewed parents mentioned the importance of their child's opinions and the need to have an open discussion. However, all of the parents felt that their choice was best, even when it was not what their child wanted. Some even made reference to using bribes in order to convince their child as to the “right” school choice.

Moreover, by analyzing the incredible involvement of some parents in the school choice process, it seems that this dominant role amongst parents could have important repercussions for their children. A study by Lucey and Reay (2002) focuses on school choice as a source of anxiety among students during the transition from primary to secondary school. These researchers conclude that anxiety and stress experienced by students in their sample are caused by their parents’ numerous expectations in regards to their choice and acceptance into the “right” school.

In Francophone minority areas in Canada, very few studies treat school choice as a family process. Only Tardif (1995) conducted a survey with Grade 9 and 10 students in three francophone schools in Alberta. She also contacted students’ parents to better understand the family process of school choice. Tardif concludes that parents, regardless of social class, have a major influence on the school choices of their children. Data from this study indicates that parents' judgments towards the importance of studying in French, as well as their opinion towards the French language, is crucial because children often opt for English schools when their parents do not believe in the importance of attending French-language school. Though parents have an incredible impact, there are also other social networks which influence a student’s school choice.

FRIENDS FOREVER: THE PRIORITY FOR STUDENTS

Students can potentially be involved in an important way in the school choice process, and so, recognizing their priorities is of the utmost importance. Literature suggests that the choices made by a student’s friends have a major influence on his/her choice of high school (Bagley, Woods & Glatter, 2001; Bulman,
Researchers note several references, regardless of social class, to students’ concerns about their friends’ school choices (Bulman, 2004; Reay & Ball, 1998). An important reason indicated for rejecting a school was also linked to which friends or classmates were attending or not attending an institution (Bagley et al., 2001). Furthermore, friends also influence students during discussions amongst peers about various school options (Reay & Ball, 1998; Reay & Lucey, 2000). The social aspect of school choice is thus an important factor among students when selecting a school.

Yet, this is the only factor that has been identified as a priority for students, according to students themselves. Literature suggests that adolescents aren’t active in the school choice process, even when the choice regards their secondary school. Yet, their involvement is incredibly important in this decision as Lucey and Reay (2000) explain that

[for primary school] pupils who [are] in the process of selecting a school, the very idea of secondary school [opens] up a space in their imaginations that [is] not entirely filled by what others [have] told them. This space [provides] highly fertile ground in which half-formed ambiguous and contradictory fears, fantasies and hopes of their own [can] be planted; a contradictory space constructed in the present around an unknown but inevitable future. (p. 192)

This imaginary space that is available to students while selecting a secondary school allows for an alignment with their postsecondary goals, and is therefore an important step towards the future and the career of their choice. Though the student’s role in the school choice process seems fundamental, the vast majority of the scholarly research in this area delves only into the needs and wants of adults, whether it be parents, teachers or administrators. Thus, students’ priorities are often silenced.

CONCEPTIONS REGARDING THE FUTURE OF SCHOOL CHOICE RESEARCH
This critical, though non-exhaustive, literature review presents school choice articles from around the globe and also includes studies that show the specific reality of the process as it is lived by Francophones in minority settings in Canada. The school choice factors elucidated in this article provide an up-to-date account of research in the field and identify areas for reflection and future study. Firstly, a conclusion that emerges from this review is the growing desire of parents and students to have the option to choose their school. This then results in a higher level of competition between schools and a richer variety of options for families of the 21st century.

Secondly, the links between socioeconomic status and school choice are numerous. The result remains the same, regardless of geography: a variety of resources and options are available to middle-class families. However, other families from less affluent social classes are marginalized. This finding was observed in all of the countries listed in this review, including Canada, and therefore appears to be a major issue in the field of school choice in Canada. In this context, it seems imperative to provide access to various resources that would facilitate the school choice process for all families, regardless of their social status.

Thirdly, several studies also look to culture as an important factor regarding school choice. An unquestionable priority for parents is their children’s appropriation of culture and this is seen internationally as well as in Francophone minority communities. Nevertheless, little research focuses on the varied definitions of culture. In addition, research indicates that parents’ choices which are associated with culture are based on emotional and intrinsic motivations. This seems to be an interesting notion for further research and reflection. Aside from culture, the development of a balanced and additive bilingualism remains a priority for Canadian parents, in particular for Francophone or exogamous couples. Despite evidence to the contrary, parents continue to fear that their children will not develop proficiency in English when they are educated in a French-language school. These parents, therefore, often opt for English or immersion schools based on these fears. This is presented in Martel’s study (2001) as she indicates that 45.6% of children who are eligible to attend
French-language schools do not do so.

Finally, it is imperative to note that most items listed focus primarily on the crucial role of parents in the process of school choice. Moreover, they neglect to consider the experience of children who are treated more as “cars being polished in a garage” (Hirsch, 1994, p. 25, own translation) or voices that are recognized, but ultimately ignored by their parents. Of course, this is a significant weakness in the scholarly literature regarding school choice. Students have their own priorities in choosing a school and should be encouraged to be involved in the process based on their interests and postsecondary goals for the future.

It is then up to researchers to consider the views of children. Focusing particularly on students’ roles in school choice, it appears that the crucial moment of choice is during the transition years. These are the years during which a student makes the transition from primary to secondary school and is a recent research interest as students face a number of challenges during this transition. However, research in the field of primary-secondary transition (cf. Laveault, 2006, Lucey & Reay, 2000; MEO, 2007; Neild, 2009; Zittoun & Perret-Clermont, 2001) focuses on improving the support provided by the school staff to ensure student success during this important transition. These researchers are silent regarding the question of choices made by students at this point in their school careers.

Although this literature review includes several articles regarding Francophones in Canada (Allard et al. 2004; Arsenault, 2008; Bosetti, 2004; Deveau et al. 2006; Dalley & Saint-Onge, 2008; Lamoureux, 2007; Martel, 2001; CIRCUM Network, 1999; Tardif, 1995), only two articles focus specifically on the reality of school choice options for Francophones in Ontario (Lamoureux, 2007; Martel, 2001). The lack of studies conducted in Ontario marks the importance of studying this phenomenon in more depth closer to home. Insofar as parents’ school choices are concerned, school visits and discussions with teachers can have an important influence. It is, therefore, crucial to have access to more generalizable data that could guide administrators and teachers as well as parents and students during the school choice process. It is also important to
Develop more group-specific knowledge regarding the factors that are related to parents’ and children’s positioning towards the language of instruction. We are a long way from being able to guide or support Canadian families adequately as they go about selecting a school. Consequently, it is important to continue to study the determinants of school choice to explore outreach strategies that could help families choose a school according to their values and priorities.

REFERENCES


CIRCUM Network (1999). Motivations en ce qui a trait aux choix scolaires chez les parents ayants droit hors Québec.


**NOTES**

i « Les parents en consommateurs et font de l’école un fournisseur de services; quant à l’élève, il est plus ou moins dans la même situation qu’une voiture en train d’être astiquée au garage » (Hirsch, 1994, p. 25).

ii « transmettre la langue, la culture et l’identité françaises d’une génération à l’autre » (Essiembre et al., 2005, p. 2).

iii « Davantage de parents choisiront l’école française s’ils sont convaincus que leurs enfants maîtriseront la langue anglaise à la fin de leur scolarisation » (CIRCUM Network).

iv « C’est en mettant l’accent sur la langue la plus faible ou fragile dans la région, c’est-à-dire le français, que le couple exogame s’assurera que son enfant développera un bilinguisme additif équilibré » (Allard et al., 2004, p. 12).

GRADING IN LANGUAGE ASSESSMENT:  
A LITERATURE REVIEW  
Youyi Sun

ABSTRACT
This paper reviews empirical studies in the field of language assessment on grading or scoring. Most of the reviewed studies have attempted to examine systematic effects on scoring of variables associated with teachers/raters for the purpose of score consistency and reliability. Following the measurement paradigm, these studies have generally taken a positivist approach and used primarily quantitative methodology. More recently, researchers have begun to pay increasing attention to teachers’ grading practices in different contexts to explore the validity of classroom-based assessment. This line of research interprets grading or scoring as a professional decision-making process, focusing on understanding teacher-raters’ grading or scoring practices in relation to broader educational, social and cultural contexts. Studies in this line of research have followed an interpretivism paradigm and employed primarily qualitative research methodology. This paper analyzes these two themes of research on grading/scoring in relation to two trends in language assessment: language performance assessment and assessment for learning, and discusses their significant implications for future research.

INTRODUCTION
Grading or scoring, as it is often called in most large-scale testing research literature, is a value-laden decision-making process. Teachers’ beliefs, particularly their values and beliefs about teaching and learning, have much influence on the grading process. A host of factors related to rater characteristics and the interactions between these factors and other facets of testing such as the rating scale and the task have effects on the scoring process. On the other hand, grades or scores may be used for different purposes by different stake-holders -- students, parents, school administrators, teachers themselves, and other score users -- and may have various effects on them. Therefore, grades or scores assigned by teachers/raters should convey to stake-holders accurate, consistent, interpretable and appropriate information
about the student’s achievement or performance. Therefore reliability and validity are two critical issues in grading/scoring.

The history of grading dates back to the 1640s in early American universities such as Harvard and Yale, where examinations were used mainly for the purpose of degree awarding (Brookhart, 2004). Early researchers and educators (e.g., Dobbin & Smith, 1960; Finkelstein 1913) were primarily concerned with reliability of grading focusing their attention on pursuing commonly accepted reliable grading systems in the educational setting. Then with increasing dominions of grading in education, concerns and doubts about the adequacy and effectiveness of grading systems were expressed by teachers, educational administrators and researchers. In 1963, the Conference on College Grading Systems was held in Pennsylvania. Summarizing the conference discussion, Teaf (1964, p.88) concluded that “grades will not be abandoned—but their dominions are challenged.” Later researchers such as Black and Wiliam (1998) echoed this conclusion, pointing out the overemphasized grading function of assessment at the expense of its learning function in education.

More recently, school assessment reform, which is characterized by two approaches—the rise of large-scale assessment and changes in teachers’ classroom assessment practices—has generated interest in research on teachers’ grading practices (e.g., Brookhart, 2003; McMillan, 2003). This research has pointed out various challenges teachers have to face in grading to accommodate the classroom realities, internal policies, and large-scale testing. There is also the need for new theoretical development to accommodate assessment reform in school settings. For example, the growing interest in incorporating assessment in the classroom for the purpose of enhancing student learning, or assessment for learning, has made consequential aspect of grading a major concern. This has brought the validity issue to the fore in current research on grading.

Grading or scoring is even a more critical topic in language assessment due to the increasingly wide use of large scale high-stakes language testing for various purposes, the complex nature of language and language use as well as the inherent subjectivity of the grading process in language assessment. Reliability of language performance assessment, which entails scoring by human
raters, has received substantial research attention in the past 15 years (e.g., Brown, 1995; McNamara, 1996). The last decade has also seen a significant shift in thinking about the role of classroom-based language assessment (Brindley, 2007). Research on assessment practices of teachers in different contexts such as first language (L1), second language (L2), international, national, secondary and postsecondary schools has begun to appear in language assessment literature.

The purpose of this study is to review empirical studies in the field of language assessment on grading or scoring published in major language-, education- and assessment-related journals from 1998 to present. While most of the reviewed studies are attempts to examine systematic effects on scoring of variables associated with teachers/raters for the purpose of score consistency and reliability, researchers have begun to pay increasing attention to teachers’ grading practices in different contexts to explore the validity of classroom-based assessment. These two major research themes have followed different philosophical paradigms and have generally adopted different research methodologies. Discussions of these two themes in relation to two trends in language assessment—language performance assessment and assessment for learning—have significant implications for future research.

**METHODOLOGY**

Two substantial review articles serve as a baseline for this review: Black and Wiliam (1998) and McMillan & Workman (1998). Therefore, with a few exceptions, all of the articles to be covered in this review were published during or after 1998. Although I make no claim to exhaustion or completeness in this review, the themes I present emerged from strategies for systematic synthesis of primary research domains (Cooper & Hedges, 1994). The current review includes empirical research studies on grading and scoring in major language, education and assessment journals published in English between 1998 and 2009. The literature search was conducted by several means. One approach was to search by the combinations of *scoring OR grading AND language assessment* in the Google Scholar and ERIC databases; this is an inefficient approach because of a lack of terms
used in a uniform way which define the field of grading in language assessment. This was supplemented with a second approach, the 'snowball' approach of following up the reference lists of articles found. Finally, the contents of all issues from 1998 to the present of the major journals in language, education and assessment were scanned. The final corpus included in the review contained 28 articles.

**EFFECTS OF RATER CHARACTERISTICS**

Grading is a complex decision-making process that involves different facets. Researchers have investigated the effects of various relevant factors on the grading or scoring process in language assessment. For example, in response to recent appearances of new assignment, test and scoring formats, researchers have examined the effects of factors such as typographic features (Hartley, Trueman, Betts, & Brodie, 2006); handwriting and print (Klein & Taub, 2005); and marking mediums e.g., paper-based marking and onscreen marking (Coniam, 2009). In oral language assessment research, Nakatsuhara (2008) examined the variability of interviewer behavior, its influence on the candidate's performance and raters' consequent perceptions of the candidate's ability on analytical rating scales. The results of this study clearly exemplified a possible relationship between the characteristics of interviewer behavior and ratings of particular components of language ability.

Rater effect has been a long-standing discussion in language assessment. Researchers are interested in investigating grade/score inconsistency and biases that are attributable to variables associated with teachers/raters. For example, Fitzpatrick, Ercikan, Yen & Ferrara (1998) investigated the consistency of scores obtained from raters who had evaluated the same student work in different years in the Maryland School Performance Assessment Program and found that the groups of raters used in different years differed in severity, and particularly, the raters in the language arts areas were the least consistent. Shores and Wesley (2007) investigated effect of educators' political biases on their grading of student essays. Their experiment showed that essays that matched educators' self-reported political views received higher holistic grades than those that did not. This same
relationship was also found when educators used a rubric, indicating that a rubric was not an effective tool in preventing grader bias.

However, mixed results were obtained by two studies investigating faculty’s grading of students’ writing. Roberts and Cimasko (2008) investigated the response of social science and engineering science faculty to a naturally occurring sample of L2 writing, and found that there was a tendency across faculty to edit semantic gaps as opposed to grammatical items. In a large-scale study, Stern and Solomon (2006) analyzed faculty comments from 598 graded papers written for hundreds of courses from 30 different departments in Southern Illinois University. Results of this study indicated that most comments were technical corrections that addressed spelling, grammar, word choice, and missing words. Macro- and mid-level comments that addressed paper organization and quality of the ideas contained were surprisingly absent. Stern and Solomon (2006) noted that the lack of these larger idea and argument centered comments may prevent students from improving the quality of the larger issues in writing and refocus them on the smaller, albeit important, technical issues of writing.

Schoonen (2005) used a more sophisticated approach—structural equation modeling (SEM) —to estimate the variance components in the writing scores. In this study, eighty-nine grade 6 students wrote four essays, each of which was scored by five raters using two scoring methods (i.e., holistically and analytically) for two traits (i.e., content and organization, and language use). Analyses of these ratings showed that the generalizability of writing scores and the effects of raters and topics were very much dependent on the way the essays were scored and the trait that was scored. The overall conclusion of this study was that writing tasks contribute more to the score variance than raters do, suggesting the necessity of taking into consideration the interactions between rater characteristics and other facets when interpreting rater effects in grading.

Two variables associated with raters that have received most attention in research on grading of students’ writing are raters’ language background and experience. Hyland and Anan (2006) compared evaluations of the same piece of 150-word writing of a
Japanese EFL student by three groups of participants, a Japanese teacher group (JT), a group of native English speaking non-teachers (NES), and a group of native English speaking teachers (NST). The participants were asked to identify and correct errors in the writing. Drawing on descriptive data collected from an error identification and correction task and a questionnaire on the participants’ error perceptions, the study showed that in spite of extraordinary agreement on an holisitic evaluation (5 out of 10) among the three groups of participants, variability between them existed in terms of quantities and types of errors they identified as well as their error perceptions. It was also found that native English speakers tended to be more lenient in grading errors than non-native speakers, and non-native English speaking teachers tended to employ infringement of rules in judging error gravity far more than native English speakers, with the NES group stressing unintelligibility in their judgments. This exploratory study also points to the fact that the grading practice closely relates to the teaching experience of the rater.

Similar results were obtained by Porte (1999), who investigated teachers’ reactions to the writing of non-native students. Participants in this study consisted of 14 native-speaker (NS) and 16 non-native speaker (NNS) university professors. They were required to indicate how many points they would deduct, on a holistic scoring guide, for each of the twenty erroneous sentences on a questionnaire. Results of t-tests showed significant differences between the NS and the NNS groups in terms of error toleration and the perceived gravity of specific errors. However, teachers in this study generally agreed in their judgments.

The relationship between teachers’ evaluations of L2 writing and their years of teaching L2 writing was also evidenced by Shi, Wang and Wen’s (2003) study. Forty-six English teachers (23 native English speakers and 23 non-native English speakers) from twenty-three tertiary institutions in Mainland China holistically evaluated ten essays written by Sinophone English majors and justified their scores for each essay with qualitative comments. Results showed that the most experienced writing teachers gave significantly lower scores than did the less or the least experienced writing teachers for four of the ten essays. Analyses of the qualitative comments on these four essays suggested that
the experienced teachers made either more negative or fewer positive comments on aspects such as general organization, language fluency, ideas and general language. However, one limitation of this study is that most of the least experienced teachers were non-native English speakers while the most experienced teachers were native speakers; differences in evaluation groups might result not only from their diverse teaching experiences but also from their differing L1 backgrounds, since raters’ L1 background is also a variable that potentially affects the way raters assess L2 writing as evidenced by Hyland and Anan’s (2006) and Porte’s (1999) studies.

While the studies referred to above focused on classroom teachers’ grading of students’ writing from the classroom setting, Royal-Dawson and Baird (2009) addressed the question whether teaching experience was a necessary selection criterion for rating extended English questions in a large scale assessment context—England’s Year 9 English National Curriculum Test. They compared scoring accuracy of teachers, trainee teachers and graduates of the same subject with experienced raters. In this study, fifty-seven raters with different backgrounds were trained in the normal manner and scored the same 97 students’ work. Hierarchical linear models were set up to investigate whether there were significant mean differences in accuracy between groups. By comparing the scoring accuracy of graduates with a degree in English, teacher trainees, experienced teachers and experienced raters, the researchers concluded that teaching experience was not a necessary selection criterion.

**Raters’ Interpretations and Use of Scoring Criteria**

Scoring criteria play a crucial role in the scoring process. A number of studies have investigated from a rater cognition perspective how scoring criteria channel raters’ attention to different aspects of language performance and how different groups of raters perceive and use scoring criteria in different ways. For example, Xi (2007) summarized the advantages and disadvantages of using holistic and analytic rubrics for rating in oral tests, noting that holistic scoring promises efficiency in scoring and is likely to impose a lesser cognitive load on raters but raters may weight the components in the holistic rubrics differentially
depending on their background and experience and their perceptions of how a particular weakness or strength impacts the overall communicative quality in a particular assessment context. Meanwhile, in holistic scoring, there are often few explicit rules that raters can utilize when making a global judgment. In contrast, analytic scoring makes possible a systematic way for raters to weight different dimensions of the rubrics but may pose higher cognitive load on raters and produce potential rating inconsistencies.

Lumley (2002) examined the process by which raters of texts written by English as a second language (ESL) learners made their scoring decisions using an analytic rating scale in a large scale assessment context in Australia—the Special Test of English Proficiency. By analyzing raters’ think-aloud protocols describing the rating process as they rated the texts, Lumley was able to demonstrate the sequence of rating, the interpretations the raters made of the scoring categories in the analytic rating scale, and the difficulties raters faced in rating. It was shown that on the one hand, raters tried to remain close to the rating scale; but on the other hand, they were heavily influenced by the complex intuitive impression of the text obtained when they first read it. This set up a tension between the rules and the intuitive impression, and raters developed various strategies to help them cope with problematic aspects of the rating process. Findings of this study also showed that raters sometimes applied the contents of the scale in quite different ways, giving different emphases to the various components of the scale descriptors. Therefore, Lumley concluded that it is the rater that is at the center of the scoring process.

The diversity of raters’ interpretations of rating criteria is also revealed by Eckes (2008), who investigated raters’ interpretation of scoring criteria of the writing section of the Test of German as a Foreign Language (Test Deutsch als Fremdsprache, TestDaF). Employing many-facet Rasch analysis and a two-mode clustering technique, Eckes was able to show that raters differed significantly in their views on the importance of the various criteria and that raters were far from dividing their attention evenly among the set of criteria. Six rater types were identified, each characterized by a distinct scoring profile. Moreover, find-
ings of this study revealed that rater background variables partially accounted for the scoring profile differences.

**Raters’ Cognitive Behavior in Grading**

A number of studies have investigated raters’ decision-making behavior in the grading process using more sophisticated research methods. For example, Decarlo (2005) presented an approach to essay grading based on signal detection theory (SDT), which provided a theory of psychological processes underlying the raters’ behavior. Latent class SDT was applied to essay grading in this study, and was compared with item response theory (IRT). Findings of this study revealed that validity coefficients were about equal in magnitude across SDT and IRT models.

Myford and Wolfe (2009) proposed a framework for monitoring rater performance over time, presenting several statistical indices to identify raters whose standards drifted. They analyzed rating data from the 2002 Advanced Placement English Literature and Composition Examination, employing a multifaceted Rasch approach to determine whether raters exhibited evidence of two types of differential rater functioning over time (i.e., changes in levels of accuracy or scale category use). Results showed that some raters showed statistically significant changes in their levels of accuracy as the scoring progressed, while other raters displayed evidence of differential scale category use over time.

Based on three coordinated, exploratory studies, Cumming, Kantor, and Powers (2002) developed a framework to describe the decisions that experienced writing assessors made when evaluating English as a second/foreign language (EFL) written compositions. Their findings revealed that raters attended more extensively to rhetoric and ideas (compared to language) in compositions they scored high than in compositions they scored low. They also found that ESL/EFL raters attended more extensively to language than to rhetoric and ideas overall, whereas the English-mother-tongue raters balanced more evenly their attention to these main features of the written compositions. Meanwhile, most participants in these studies perceived that their previous experiences of rating compositions and teaching English had
influenced their criteria and their processes of rating the compositions.

TEACHERS’ GRADING PRACTICES IN EDUCATIONAL AND SOCIAL CONTEXTS

While the majority of the studies referred to above have mainly focused on the effects on the rater’s decision-making process of various characteristics associated with raters as well as the interactions between rater characteristics and other relevant factors of the micro context of grading or scoring, other studies on teachers’ grading practices have been situated in the macro social, cultural, economic and political contexts. For example, Hunter, Mayenga and Gambell (2006) analyzed from an anthropological perspective pan Canadian data from a 2002 English teacher questionnaire (N= 4070) about self-reported assessment practices in terms of tool choice and use by secondary teachers of different experience and qualification levels. Four underlying variables were identified in the teachers’ choice of assessment tools: whether affective traits such as attendance, effort, motivation or participation were factors; whether self-assessment and peer evaluation were considered; whether portfolios or examples of student work were variables in grading practices; and whether multiple choice or short response tasks were chosen. In terms of tool use, the three salient variables were: the nature of the feedback cycle with students; whether homework contributed to grades; and whether homework served in large group instruction. A number of significant differences by career stage and credential level were revealed in assessment instrument choice and use in the Canadian context.

In the United States, Zoeckler (2007) conducted a case study in a high school to examine how English teachers arrived at a fair grade while weighting both achievement and non-achievement factors and the role of teachers’ expectations. In this study a theoretical framework was used which considers grading processes in terms of truth, worthwhileness, trust, and intellectual and moral attentiveness. Results indicated that grading was influenced by grading systems, perceptions of effort, and concern for moral development and that these teachers struggled with issues of fairness, but were confident that their grades com-
communicated the messages they hoped to send.

Two studies compared teachers’ grading practices in different contexts. Cheng and colleagues (2004, 2007) conducted a 3-year study comparing ESL/EFL teacher assessment practices in three different tertiary institutional contexts: Canada, Hong Kong and China. Their comparative survey findings (reported in Cheng, Rogers & Hu, 2004) demonstrated the range of procedures that teachers reported using when making decisions about their students’ language abilities and the complex and multifaceted roles assessment played in these settings. Their interview findings (reported in Cheng & Wang, 2007) demonstrated how teachers made day-to-day decisions in these three contexts, thus adding to our understanding of ESL/EFL classroom assessment practices. Results of their study showed both commonality and diversity among the teachers across the three contexts. Cheng and Wang identified a range of contextual factors that may help to account for the differences that emerged in their study across these settings. For example, they analyzed teachers’ preferences for different methods of marking in terms of the beliefs these teachers held about the orientation of their assessment. They also noted that practicality, particularly class size, was another factor that had influence on teachers’ assessment practice.

Cheng and Wang’s (2007) study provides substantial documentation and comparison of teacher grading practices in different settings, showing how teachers’ assessment practices were influenced by their belief systems and the external context. However, their investigations were made on the basis of teachers’ self-reported data. Noting limitations of this research methodology, the researchers suggested the need for future studies of assessment practices to include both teachers’ perceptions and their actions in the classroom, including observations of teaching as well as examination of curriculum documents and teaching materials related to assessment and evaluation.

In a similar vein, Davison (2004) compared ESL teacher assessment practices in Australian and Hong Kong secondary schools, focusing on underlying constructs and criteria teachers used to grade students’ written arguments in these two contexts. Adopting a sociocultural approach, the study highlighted how teacher’s decision-making process was shaped and constrained
by the different assessment cultures of Australia and Hong Kong. The methodology chosen for this study was primarily qualitative and interpretive: questionnaires, verbal protocols, individual and group interviews and self-reports were used to explore 12 teachers’ assessment beliefs, attitudes and practices in each of these two contexts. A number of contrasts were found in these aspects. Davison analyzed these contrasts in relation to the social, cultural and educational differences between these two contexts, and concluded that traditional notions of validity may need to be re-conceptualized in high-stakes teacher-based assessment, with professional judgment, interaction and trust given much higher priority in the assessment process.

Two other studies, both from Australia, highlighted the conflict and tension between teachers’ classroom assessment practices and the state or provincial accountability system. Arkoudis and O’Loughlin (2004) reported on a collaborative study involving ESL teachers in an Australian English Language Centre grading the students’ written work using the ESL companion, a companion volume to the English Curriculum standards framework in Victoria, Australia, as an assessment tool. This study focused on conflicts that emerged in the teachers’ grading of the students’ work. The teachers were required to demonstrate the students’ progress in a consistent way using the ESL companion, but they did not have a shared perspective on what they were expecting students to be able to do at each of the different levels in the ESL companion because the assessment criteria were too general and vague and did not link with the teachers’ experiential understandings of their students’ progress. In order to align the assessment standards with reference to their own pedagogical practice, the teachers reworked the ESL companion, modifying it based on their own pedagogic understandings about ESL teaching and learning. But the teachers’ re-working of the descriptors was not endorsed by the Department of Education on the grounds that it did not have a sufficiently firm theoretical basis. Arkoudis and O’Loughlin (2004) analyzed these conflicts using the positioning theory, in which power is a key feature and conversations are considered as complex interactions between partners with different rights and responsibilities. Findings of their study showed that when teachers made their grading decisions
they found themselves at the confluence of different assessment cultures and faced with significant dilemmas in their assessment practices.

In the other study, Cooksey, Freebody and Wyatt-Smith (2007) highlighted the tension between “system” validity (the accountability of teachers’ assessments to the parameters of state or national educational systems) and “site” validity (the accountability of teacher assessments within their localized classroom and community contexts) and the complexities inherent in the teacher’s responsibility to make professional judgment accountable to stakeholders with varying interests and needs. They took a “snapshot” of how teachers had resolved such tensions and complexities by analyzing teachers’ judgments of students' written texts, documenting how 20 primary school teachers from the Brisbane (Queensland, Australia) metropolitan area used evidence in ways that depended both on their knowledge of the students and on the assessment framework they needed to use. They analyzed teachers' judgments by contrasting the structures of assessments made using teachers' normal classroom judgment processes with those made using an external set of “benchmark” standards. Their conclusions were that current understandings of teacher judgment processes generally fail to account for the complexity and dynamism of this routine classroom activity. Cooksey et al. (2007) also suggested using judgment analysis, combined with think-aloud protocols to understand the complexities associated with the operation of judgment in educational assessment.

Feinberg and Shapiro (2009) also noted the importance of understanding external influences when considering teacher reports of student performance, but they took a very different perspective from that of Davison (2004) and Cooksey et al. (2007). In Feinberg and Shapiro’s study 74 teachers were asked to predict average- and low-performing students’ reading performance using a rating scale and actual curriculum-based measures of oral reading fluency. Teachers’ judgments of students’ performance on curriculum-based measures and a standardized achievement measure of reading were compared. Results of this study showed that correlations between predicted teacher scores and actual student performance in general ranged from moderate to strong, but
a how-close analysis revealed that the score difference was larger on the part of the low-performing students. Feinberg and Shapiro concluded that teachers had lower levels of accuracy for lower achieving students.

An earlier study that took social factors into consideration was conducted by Wyatt-Smith (1999). The study focused on how teachers read student writing in the context of criteria-based assessment in secondary schools in Queensland, Australia. The researcher used the term 'reading' to refer to teachers’ responding to students' writing and assessing it for grading purposes. She was interested in seeking to interpret what individual teachers had to say about their experiences as reader-assessors in terms of their own conceptions while also taking social interactions between teacher and student into account. Based on the analysis of data on three case-study teachers, Wyatt-Smith proposed a data-based model of how teacher readings of student writing occur. This model includes four units: (a) individual teachers’ philosophies of teaching writing coupled with their repertoire of language skills, reading strategies and prior readings, etc.; (b) attitudes to and purposes of reading in conjunction with teacher beliefs about status or position in the school, and other beliefs about classroom social practices; (c) available knowledge 'files'; and (d) the teacher’s attempts at actively reconstituting conceptions of quality.

TWO LINES OF GRADING RESEARCH AND THEIR IMPLICATIONS

The studies referred to in this review show the continued efforts in the past decade to address various issues associated with grading or scoring in language assessment, particularly the issues of reliability and validity. These studies have generally followed two lines of research. One line follows a research agenda set out by language performance assessment models (e.g., McNamara, 1996; Skehan, 1998), focusing on examining the systematic effects on scores of a host of factors that are deemed relevant to the scoring/grading process. Two-thirds of the reviewed studies have followed this line. Following the measurement paradigm, most of these studies have taken a positivist approach and the methodologies used in them are primarily quantitative. This review shows that while rater effect remains a major
topic in grading or scoring research (e.g., Shi et al., 2003; Hyland & Anan, 2006; Royal-Dawson & Baird, 2009), researchers have also focused interest on exploring the interactions between rater characteristics and other facets of language performance assessment in the grading or scoring process such as the rating scale (Eckes, 2008) and the task (Schoonen, 2005). There have also been calls for further investigation of raters’ cognitive behavior in the grading or scoring process (Cumming et al., 2002). More sophisticated research methods have been employed in these studies such as SEM (Schoonen, 2005) and multifaceted Rasch approach (Myford & Wolfe, 2009). Findings of these studies have significant implications for assessing the quality of large-scale rater-mediated language testing, rater monitoring, and rater training and for improving the reliability of language performance assessment through a combination of rater training, better specification of scoring criteria and better task design.

The other line of research interprets grading or scoring as a professional decision-making process, focusing on understanding teacher-raters’ grading or scoring practices in relation to broader educational, social and cultural contexts. Studies in this line of research have followed an interpretivism paradigm and taken different theoretical approaches such as anthropology (Hunter et al., 2006), positioning theory (Arkoudis & O’Loughlin, 2004) and sociocultural theory (Davison, 2004), and employed primarily qualitative research methods, e.g., case study (Wyatt-Smith, 1999; Zoeckler, 2007); interview (Cheng et al., 2007); and/or mixed-methods (Cooksey et al., 2007). Findings of these studies suggest that grading is never context-free; nor is it a purely technical activity. Teachers’ beliefs, knowledge, theories, assumptions, and attitudes, as well as the social, cultural and educational contexts all play significant roles in shaping teachers’ grading decisions. In the end, the grade assigned by the teacher is characterized by interactions between these various factors rather than a direct representation of the student’s language proficiency. Therefore, understanding interactions between these factors should be a necessary constituent of validation research.

**Future Research**

The two research lines revealed by the studies in this litera-
ture review are relevant to two trends in educational assessment in general and in language assessment in particular. First, the past 15 years has seen the widespread use of performance assessment as a measure of language proficiency particularly in terms of writing and speaking. From the perspective of grading or scoring, performance assessment is a double-edged sword. Professional judgments of skilled human raters can provide richly informed interpretations of the value and worth of students’ language use abilities. On the other hand, however, since ratings in performance assessment are necessarily subjective, the lack of reliability achievable in assessment is a major concern. This literature review shows continued efforts in the last decade in language assessment research to examine systematic effects on scoring of variables other than the test taker’s language proficiency that are considered potentially relevant to the scoring process. The research in this area is far from complete. In the future, researchers will continue their efforts to identify, conceptualize and model variables associated with rater variability. Rater behavior will receive increasing attention and will be explored from different approaches using more sophisticated research methods.

In light of the measurement paradigm, the key issue associated with scoring in performance assessment is score consistency, which is often addressed by means of rater training at the technical level because grading is considered exclusively at the judgment level as purely a standards-referenced technical process (Newton, 2007). However, as suggested by Lumley’s (2002) study, this kind of training may just result in raters’ surface-level processing of rating criteria. One solution to this problem is to inform rater training by further research on the rating practice in relation to raters’ belief and value systems. Research in this area will also shed new light on examining the validity of language performance assessment, which has not been sufficiently addressed up to the present day.

Second, the last decade has seen a significant shift in thinking about the role of classroom assessment in both language learning programs (e.g., Brindley, 2007) and in educational settings in general (e.g., Andrade, 2009). The notion of Assessment for Learning (AfL) has gained increasing popularity and research
has offered ample evidence in support of AfL as a promising pedagogic approach (e.g., Hume & Coll, 2009; Kirton, Hallam, Peffers, Robertson, & Stobart, 2007; Marshall & Drummond, 2006). However, there is also a wealth of research evidence that teachers’ everyday assessment practices are beset with problems and shortcomings, or what Black and Wiliam (1998) called in their seminal review of classroom assessment “a poverty of practice.” Among these problems is the grading practice that does not provide accurate and useful information about learners’ progress and achievement and how their work can be improved. Studies have also reported results showing a contradiction between teachers’ grading practices and the recommended practices that measurement specialists have offered in pre-service and in-service teacher education. For example, teachers tend to consider a hodgepodge of factors when assigning grades (Cross & Frary, 1996) in spite of the suggestion that grades should be based on students’ academic achievement without including confounding factors such as effort and work habits (Merwin, 1989).

A critical challenge in promoting AfL is the lack of effective models for teacher professional development (PD) on assessment (Lee & Wiliam, 2005). The majority of current research on teacher PD recommends a shift away from top-down models that are disconnected from teacher practice and calls for models of PD that focus on teachers as active learners (Atherton, 2009) while promoting contextualized learning (Sparks & Hirsh, 1997) and reflective practice (Osterman & Kottkamp, 2004). In light of the current teacher PD models, a best approach to solving the discrepancy between the recommended and the actual grading practices is to understand how teachers make their grading decisions in particular social, cultural and educational contexts. Davison’s (2004) and Cheng and Wang’s (2007) studies referred to in this review provided substantial documentation and comparison of teachers’ grading practices in different settings in relation to teachers’ belief systems and external contexts. However, the factors that determine teachers’ grading practices and the assessment methods they use to assign grades are still unknown. Future research is needed in language assessment to investigate teachers’ grading practices within the framework of validity.

Over history, grading has long been “a necessary evil” or “a
black box” in education. Studies in the past decade in the field of language assessment, particularly those conducted from the sociocultural perspective indicate that we might not see it this way. Instead, we might see it as a kaleidoscope, or a dynamic landscape of sense and relationship, where teachers play a particular role as participating members in particular sociocultural contexts. To explore this landscape, researchers need to be equipped with what Bourdieu and Wacquant (1992) called “double-focused analytical lens”; that is, an analysis of the regularities of the field and an analysis of agents’ internalizations of these regularities through their reflexive deliberations and actions.

REFERENCES


Shores, M., & Weseley, A. (2007). When the A is for agreement: Factors that affect educators’ evaluations of student essays.


CURRENT STATUS OF VOCATIONAL EDUCATION IN ONTARIO:
THE EXCLUSIONARY OUTCOMES OF MARRYING VOCATIONAL
AND SPECIAL EDUCATION
Gillian Kajganich

ABSTRACT
The Government of Ontario’s universal student success initiative makes the claim that, through expanded programs, Ontario high schools are “changing to meet the individual needs of students and to help more of them succeed” (More Ways to Succeed, 2008, p. 2). Although it is up to each individual school board to determine the types of vocational and special education programming they provide, it is becoming increasingly common for Ontario’s vocational programming to be available only for students receiving special education. This paper explores how the ideas that drove the creation of vocational education in Ontario have become extremely disconnected from the current reality of vocational schools. Recent trends in high school programming are leading towards the marrying of vocational and special education—two terms that are by no means synonymous. Through interviews and document analysis, this case study of one vocational high school highlights the current status of vocational education and illuminates how it has become linked to special education. This study also considers whether current practice in a vocational school that was originally founded on a vision of practical education for all is aligned with the current inclusionary model’s promise of equitable access to a variety of programs for all learners.

INTRODUCTION
The ideas that drove the creation of vocational education in Ontario appear to have become disconnected from the current reality of vocational schools. Recent trends in high school programming have led to the marrying of vocational and special education—two terms that are by no means synonymous. This exploration of the current status of vocational education illuminates a system that has become inextricably linked with issues that plague special education. The Government of Ontario’s universal student success initiative makes the claim that, through...
expanded programs, Ontario high schools are “changing to meet the individual needs of students and to help more of them succeed” (More Ways to Succeed, 2008, p. 2). However, a case study conducted through unstructured interviews shows a trend toward vocational education becoming available only to students who are entitled to special education programming.

HISTORICAL LITERATURE REVIEW AND THEORETICAL FRAMEWORK

Vocational education arose in two waves during the 20th century to meet specific economic and educational needs of Ontario citizens. Despite this, vocational education has largely been overlooked by both sustainable funding and educational policy resulting in an unclear identity within the education field. Perhaps more interesting is the recently formed, seemingly inextricable link between vocational and special education that makes determining the current status of vocational education challenging. An examination of the historical beginnings, policies, and academic research in the area of vocational education highlights the shift from a clearly-defined program of education to meet student and societal needs to one that is vague and lacking identity.

Research in the area of vocational education is troubled by many issues beginning with the lack of a universally accepted definition and the fact that the term ‘vocational education’ in itself has become rather vague; it is applied in a variety of ways and means different things to a multitude of people and organizations. Although much of the historical literature focused on post-secondary technical training, that is not the definition of vocational education that this study employs. Vocational education, for the purpose of this paper, is defined as education targeted at teaching skills and knowledge in high school that are useful in occupations for which post-secondary education may or may not be required.

In order to explore the current status of vocational education, a brief historical overview is necessary to provide context. Historically speaking, the development of vocational schools in Ontario can be viewed as two waves: the conception (1910-1920) and the revival of the late 1950s. Beyond a few key reformers,
such as Charles Dubcombe and Egerton Ryerson, the modest beginnings of vocational education went unnoticed by most educators in the 19th century (Hodgins, 1898, p. 322). It was the Industrial Age that brought vocational education to the forefront in the early 20th century as an answer to rising concerns about the “appropriate relationship between schooling and work” (Axelrod, 1997, p. 106). In the beginning of the century, factories had diminished the need for apprenticeship training in trades but that soon became a matter of concern for employers who faced an increasing number of unskilled potential workers.

In a matter of years, school reformers began to argue that public education needed to more actively prepare youth for the new demands of the industrial age. Danylewycz (1991) argued that the age of vocational education in Ontario dawned when the Industrial Education Act of 1911 and the Federal Technical Education Act in 1919 were passed. These two acts caused an increase in technical schools in Ontario from one in 1901 to 63 in 1935. Further, enrolment drastically increased during a short period of time and by 1935, 32% of high school students were receiving vocational programming. The popularity of vocational education was evident in the growing numbers of working-class adolescents spending more time in class than in workshops (Camicchio, 2001, p. 36).

However, as the drastic increase in enrolment was left largely unchecked, the attention paid to vocational education soon faded, and numbers began to taper off in these programs—it appeared as though those forming policy believed creating the programs would single-handedly solve the problems. It was not until the late 1950s when Ontario was faced with an increasing dropout rate that interest in vocational education was renewed. Federal policy initiatives attempted to combat a recession and increasing unemployment at the exact moment that baby boomers were about to enter a labour market already filled with unskilled workers. Having the insight from what occurred following the first wave of vocational schools in Ontario, the government was more prepared with a funding structure and plans for developing the necessary curriculum. That federal plan was to take the form of the Technical and Vocational Assistance Act of 1960 (TVTAA) whereby the federal government would pay 75% of the cost for
expansion and would pay even higher operating costs of programs where at least 50% of school time was devoted to vocational subjects (Gidney, 1999).

One problem that was raised by educators when faced with funding for such schools was the lack of curriculum. Policy makers addressed this with the “Robarts Plan” which was nothing short of a full-scale rewrite of courses to make vocational subjects more accessible to all students. The plan provided technical training but also kept options open allowing student choice between job market or grade 13 preparation for higher education in their final year of study. The goal was to keep more students in school until graduation and it was definitely achieved. In 1960 62% of students aged 15-19 remained in school and by 1971 that number jumped to 77% (Gidney, 1999, p. 46). TVTAA money created a building spree resulting in the construction of 278 new technical schools during the same period. Thus, by the early 1970s there were flourishing numbers of vocational schools providing technical programming throughout the province.

Despite the inclusive intent of the Robarts Plan, it was anything but a success for vocational education. Many historians have argued that failure was the result of opponents who began to speak out about the way that vocational education reinforced industrial stratification of society with the goal of consolidating the power of business. Such arguments are the earliest signs of the current issues involving the accessibility of vocational programs in high schools in Ontario that are inherent in the following case study. For example, Smaller (2003) argued that it quickly became apparent that these new vocational programs of the 1960s focused overwhelmingly on certain kinds of students – clearly defined on the basis of their gender, class, race and ethnic backgrounds (p. 16). Further criticism grew in all sectors when federal funds were withdrawn leaving the provinces and school boards to pick up the full cost of vocational programs (Lyons, Bikkar, Randhawa & Paulson, 1991, p. 143).

The failure of vocational education to maintain the necessary funding and policy support following the second wave may have played a pivotal role in the current status of vocational education in Ontario. Vocational education is no longer a specific, defined type of programming; it has become married to special education
in many cases. Since the 1960s revival, very little attention has been given to vocational education which has cemented its vague role in the larger educational sphere in Ontario. However, upon examination of the policy documents that schools used to form vocational programs, the intention of making technical education available to all students is clear. A sample resource guide produced by Denniston (1976) *It Isn’t Easy Being Special: Let’s Help Special Needs Learners* states that technical skills are important and should be accessible to “all students, both regular and special needs” (p. 17). Although this American resource guide was written to allow people with special needs access to vocational training, the salient point is that all students should have access. The goal of vocational education has always been job-readiness for entry-level employment and apprenticeships which should be available to any student interested in skill-based jobs.

Similarly, a 1987 document entitled the *Handbook of Vocational Special Needs Education* focused on making vocational education available to all by providing opportunities to master skills through hands-on practice. It also held that the “basic premise of [the] mainstreaming concept is that exceptional and non-exceptional children have common needs” and neither group should be deprived of a mode of learning (Meers, 1987, p. 15; see also Clark, Dyson, & Millward, 1995; Wright, 1978). A publication over a decade later, *Vocational Evaluation in Special Education* (Hursh, 1998), explored virtually the same concerns testifying that the problems have yet to be addressed.

The confusion that arises in the policy documents is not aided by the constant changes within the field of special education during the late 20th and early 21st centuries. The recent shift towards inclusion is not without controversial issues; the claim made by the Ministry of Education in *Education for All* that “all students can succeed” holds true to this (2005, p. 4). Despite government reports, such as *The Transition from Initial Education to Working Life: a Canadian Report for an OECD Thematic Review* (2000), there remains a complete lack of attention to this link with special education. This shift has resulted from policy mandates including the recent requirement that all high schools must provide a broad range of programming. However, this re-
quirement only seems to apply to regular high schools and not vocational schools. Mainstream schools need to provide programming for all levels but policy did not direct boards as to the types of programming that must be provided in existing vocational schools. This debate of equality raises a fundamental concern of the current status of vocational schools in Ontario where capable students are being denied access to the skills needed to function in workplaces and college programs. The best equipped schools with industry-experienced staff are becoming accessible only to students who require more modification than inclusion at the regular high school level can provide.

The Ontario Ministry of Education’s recent publication, *More Ways to Succeed in High School* (2008), contained a section on technological education courses as a means to help at risk-students stay in school. This policy document claimed that schools also offer new technological education courses and have expanded existing programs (p. 6). However, if the government really wanted to increase the success of at-risk teens, it would make all the programs available to all students. The following case study argues that vocational programming is becoming available to an increasingly limited number of students which has created inherent problems within the system. With the emerging trend of decreasing numbers of vocational programs and a deficit in skilled trade workers, there are stirrings of a renewed call for attention to vocational education. For the most part, this call is being made by educators who see this as more of a global issue. Smaller, a professor at York University, made this evident in his statement that: “If Ontario is any example, there has been a rapid and continuing decline in the numbers of students enrolled in vocational courses in secondary schools over the past decade. Canada does not seem to be alone in this regard” (Smaller, 2003, p. 2). Despite a wealth of historic and current research on the unique function of vocational education within the public school system there is a significant lack of policy attention to pressing systemic issues.

A recent conversation (after a series of unanswered phone calls and emails) regarding the marrying of special and vocational education with an Education Officer for the Ontario Ministry of Education is revealing. The officer, “Julie,” was willing to
discuss where the alignment came from but was very clear that the information she gave me was “not ministry information; it is experience based” (personal communication, November 23, 2009). Julie repeated a number of times that “historically,” vocational schools were for lower functioning students and that the aim has never been to provide programming for all students. This reasoning is in direct contrast to the ideas that drove the creation of vocational schools in Ontario. Although it is up to each individual school board to determine the types of vocational and special education programming they provide, Julie predicted that Ontario’s vocational schools will “probably end up with only special education students in the near future” (personal communication, November 23, 2009).

A survey of academic literature in the field of educational research shows that there is little to no attention given to this problematic synthesis of special and vocational education. Recent research by A. Taylor (2005 and 2006), M. Taylor (2009), Terzi (2008), Fink (1999), De Vore (2009), Hyslop-Marginson et al. (2007) and Hyslop-Marginson and Pinto (2007) demonstrated this gap as their research collectively focuses on literacy skills, human capital, training, and union partnerships. Despite the various perspectives, topics, and issues covered, one trend overlooked by researchers is the exclusionary aspect of vocational education’s recent ties with special education. The following case highlights the need for additional research in this area because the synthesis of special and vocational education may have serious ramifications for students and educators. This connection between vocational and special education is not new; the United Nations designated 1981 as the International Year of the Disabled Person and the proceedings show early signs of marrying the two. The accompanying publication defined the newly forged link between special education and vocational skills training with the number of articles which focus on vocational skills (Griffith, 1998; Palomaki, 1981; Versnel, Hutchinson, Munby & Chin, 2008). It has been nearly 30 years and nothing has been done to separate vocational education from special education.

METHODOLOGICAL FRAMEWORK
DESIGN

The following case study of ‘Secondary School’ (SS) was designed to examine the original purpose, intended population of the community, and the current reality of one Ontario vocational high school. The focus of the unstructured interviews was to discuss demographic changes in the school over time and the ramifications of those changes for students and educators. Creswell (1998, 2007) stated that one must define the focus (what the phenomenon is) and the case (the real-life situation) in order to determine whether grounds exist for employing case study. For my study, I sought to explore the phenomenon of the marrying of special and vocational education in specialized schools in Ontario. The setting for the study was at one school to determine if the marrying of the two types of education has occurred and examine the day to day experiences of educators working in the midst of such change (Dooley, 2002). As a result, a case study methodology was chosen to emphasize the contextual analysis of one particular school to determine the relationship between vocational and special education.

Commonly cited challenges against time-consuming case studies are that the results provide little basis for ‘scientific’ generalization – particularly from those questioning sampling for statistical generalization. Perhaps the most common challenge cited among researchers conducting case study is that the approach is flexible and there is a lack of ‘how to texts’ to guide researchers through design, data collecting, and analysing processes (Merriam, 1998; Yin, 2009). However, the reasons for choosing case study outweigh the challenges in this examination of the current status of vocational education.

Case study offers a means of investigating complex social units consisting of multiple variables of potential importance in understanding a phenomenon. In addition, case study provides rich results and a holistic account of a phenomenon that can lead to concrete, context-dependent knowledge that is useful in developing practice-based theories. Case study illuminates meaning to expand researchers’ experiences; these insights, in turn, can form the basis of tentative hypotheses to help structure future research. Case study, thus, offers opportunities for obtaining descriptive depth and formation of a basis for future comparisons regarding
the nature of a phenomenon. In the end, case study generates or generalizes contextual theoretical knowledge, particularly in single studies (Flyvbjerg, 2006; Gerring, 2004; Merriam, 1998; Yin 2009).

Prior to beginning to collect any data the phenomenon under study was isolated: the changes that have occurred in vocational education in the past three decades. In conducting the literature review it became evident that the drastic shift in vocational and special education programming has remained largely unexplored (Hancock & Algozzine, 2006). The decision to use a single case was made because the goal was to provide rich description of the phenomenon in its natural education context through deep sources of information. One key consideration in employing case study is determining the boundaries of the case. The purpose of placing boundaries is to limit excessive data collection by determining the time, space, activity, and event under study (Creswell, 1994; Hancock, 2006; Yin, 2003).

According to Merriam’s (1998) framework, case studies can be categorized by their features, discipline, and intent. Within this framework, this descriptive case study aims to provide rich description of the phenomenon of vocational education evolution that has not been explored to date. Yin (2003, 2009) provided the methodological framework for the following descriptive case study because it is aimed at presenting descriptions of a phenomenon within its unique context and thereby leads to potential explanations for future research. The disciplinary orientation is a historical case study as the interview material gleaned is bounded by time and the phenomenon is a historical trend that was traced through the literature review in the preceding section. Context is a pivotal concept to case study methodology because research is conducted within situational and historical context. In essence, contextual relationships are what bring understanding to the phenomenon under investigation. As a result, there is often an examination of diverse issues and contexts in a single case study.

Although case study can employ a variety of qualitative and quantitative methods in various combinations, the following case study used interviews, observation, and document analysis (Yin, 2009, p. 102). Case study is a suitable methodology because the
The phenomenon of the current status of vocational education is contemporary and the data sources are multiple. The data collection was a two-fold process and consisted of unstructured interviews (that were recorded and transcribed) with educators in a vocational high school and document analysis of promotional materials from the school. Triangulation of the various data sources allowed for the “championing of multiple perspectives” (Stake, 2005, p. 453). In order to address validity, I used multiple perspectives to clarify meanings and eliminate data redundancy.

PARTICIPANTS

Participant recruitment for interviews was done through purposeful sampling. The target population was not a random sample of staff at the school; it was to gain historical perspectives from teachers and administrators who had been at the school for a long period of time (two of them had been there since the school opened). The insights provided by these interviewees contributed to increasing researcher understanding of the trend and the complex relationship between special and vocational education. During the course of data collection, six educators in various roles were interviewed (1 guidance counsellor, 1 administrator, 3 teachers, and one government official). The conversations focused on interviewee experiences of change in vocational education over time from their ‘grassroots’ vantage points.

DATA COLLECTION AND ANALYSIS

Unstructured interviews were chosen as the data collection method because the nature of the phenomenon led itself to focused conversations. Such informal interviewing is characterized by a total lack of structure or researcher control. The purpose of unstructured interviews is “to get people to open up and let them express themselves in their own terms, and at their own pace” (Bernard, p. 211). Here, Bernard’s (1994) rule provides a useful guideline for researchers employing unstructured interviews: “Get people on to a topic of interest and get out of the way. Let the informant provide information that he or she thinks is important” (Bernard, p. 216). Unstructured interview techniques were used to guide the interviewer’s attention to relationship, rapport, active listening, and probing. Probing was used to
generate further explanation through asking open-ended questions. Attention was paid to ensure that flow remained throughout the interviews so the researcher did not interrupt or lead the discussion. Silent probes (stop, look, listen), encouraging probes (nodding and gazing), and clarification probes (to connect or elaborate ideas) were also employed.

The advantages of unstructured interviews lie in their versatility which allow for a wide range of issues to be covered from a personal perspective at an in-depth level. The flexible nature allows participants to open up at their own pace and in their own time while researchers listen to the story in its entirety and interject with questions as needed through probing. Unstructured interviews allow researchers to note facial expressions and body language which can be extremely useful data (Berg, 2001; Firmin, 2008). Researchers can also stop and ask for clarification as needed which was used a number of times during this project.

Unstructured interviews require a degree of trust and rapport between researcher and participant; “the strength of the interviewer-participant relationship is the single most important aspect of a qualitative research project” (Knox & Burkard, 2009). These interviewees are fellow educators and previous informal discussions had occurred prior to the interviews about education polity and our experiences as educators. The interviews were one-to-one and each lasted over an hour. The participants had stories to share and their reminiscent musings brought a facet of rich description to the data. The interviews were taped for later transcription while notes were also taken during the interviews. Attention was paid to notable ethical issues inherent in the data collection and analysis as outlined by Corbin and Morse (2003). The project included informed consent (which outlined participation risks and benefits) and there was no element of deception or covert research. The researcher was aware of the personal responsibility to the interviewees and ensured that confidentiality and anonymity would remain for both participants and location.

As a single-case study, the analysis occurred within the case. In order to promote rigour, methodological triangulation was employed. Member checking was used following analysis and a copy of the findings was given to the participants for verification. The interview data was combined with the document con-
tent analysis findings that outlined board policy, provincial policy, and school promotional materials. The detailed case study data was used to confirm the findings of the initial literature review (Stake, 1995) and was easily compared and contrasted with the school promotional materials.

**DISCUSSION OF FINDINGS**

The case study is of one particular vocational school and, as such, cannot speak for all vocational schools in Ontario. As a result of the gap in current vocational education research, it was not possible to compare the data to other studies. In spite of this limitation, the information gathered in this case provides evidence of the shift and raises future implications for vocational education in the province. The school, SS, no longer mirrors the Ministry of Education’s promise of equity in education as the case study supports the trend of marrying special and vocational education. It appears that the two terms are now synonymous in this school.

Since its conception 22 years ago, the motto of this particular school, SS, has been “success for all students.” This motto evokes a community where all students thrive and hone skills. ‘Dan’, a teacher who has been at SS since it opened, explained that the original philosophy of SS (and all vocational schools) was to “expose students of all functioning levels to the trades through hands-on ability” (Personal communication, October 8, 2009). Dan maintains that to be a true vocational program, a school must give all students the opportunity to learn a trade and upon graduation move into those trades in various capacities. The school’s recent promotional brochure highlights the combination of academic and technical classes offered which focus on the unique learning styles and diverse talents of all students. The claim is made that “students here benefit from hands-on learning, strong support from staff, training in vocational and life skills, and on-the-job experiences” (District School Board, pamphlet).

The school itself is a community where students can try different vocations and find their areas of strength. It has a full program for childcare, cosmetology, woodworking, foods, baking, catering, metal shop, horticulture, autobody, and autoservice. It is through “meaningful career pathways for stu-
dents...along with their training as educators, our vocational staff bring experience in their fields, giving students a valuable understanding of the workplace” (District School Board, pamphlet). All students take a semester of cooperative education to allow them to apply, refine and expand their technical and academic skills through real world work experiences.

The school’s motto, however, does not acknowledge a trend that may very will be occurring in vocational schools across Ontario: it is not success for all students, only those who fit the special education criteria may attend. At SS and other vocational schools in the District School Board, students have to be identified as exceptional with an Individual Education Plan (IEP) entitling them to special education to be granted access. Further, having an IEP does not guarantee admittance and students must be well below grade level to be offered placement at SS. Interestingly, nowhere in the brochure or promotional video does it say the programming is only available to identified students. The only clue is the statement in the brochure outlining the catchment area which serves a very expansive geographic area and is only revealing to those who work within the board and have knowledge of typical catchment areas.

A further reality of the school is the level of employability in these trades by recent graduates. The province of Ontario, noting a lack of students entering the skilled trade sector, developed the Ontario Youth Apprenticeship Program (OYAP) which is a program that promotes school to work transition. The goal is for OYAP to open doors for students to explore apprenticeships in skilled trade occupations during grades 11 or 12 through cooperative education placements. The OYAP website makes the prediction that “40% of new jobs will be in skilled trades” as a means of supporting the direct transition from high-school credits that count toward apprenticeship hours in post-secondary technical programs.

However, only one student at SS was signed on under OYAP last year and Dan believes that this is “indicative of the shift away from technical to special education in vocational schools.” This fall saw only four students accept placement in the applied stream program. Most local schools have three levels: academic (university-bound), applied (college-bound), and
locally developed compulsory courses (LDCC: predominantly workplace-bound). SS has specialized programming with applied, LDCC, and vocational level one (certificate stream where students do not finish with a diploma). Given that this population is becoming obsolete with new legislation forcing home schools to offer LDCC programming, SS is losing the students who can go to college and secure apprenticeships. ‘David’, another teacher who has been at SS since it opened its doors, provides a further reason for these students deferring placement at SS; the fact that more jobs require post-secondary education than in the past is heavily reported while the shortage of workers in skilled trades is given much less attention (Personal communication, November 20, 2009).

The experiences of teachers at SS do not seem to support the brochure’s claim that “we prepare our students for the world of work, apprenticeships, and for some, college programs.” David points to the drastic shift in the school community in the last five years as the vocational level one student population (functioning more than five years below grade level) has increased from 10% to 20%. In fact, 2009 intake numbers show this trend is increasing at an alarming rate. Of the 102 students in grade nine, 63 are vocational level two students (who function 3 to 4 years below their grade level) and 39 are vocational level one students (Personal communication, November 20, 2009).

The full range of programming (from vocational level one to college-bound students) at SS is only shown by the four students in the applied level stream. However, these few students will more than likely go to their home schools next year after having their academic courses in such small classes. Notably, these few high functioning students are the same students displayed in the pamphlet which may not provide an accurate representation of the school demography. Two of the interviewees noted that the 2008 board-made DVD depicted the highest calibre students in the school to attract those who have a choice whether they come or not. The majority of students who come to the school do not have a choice and, presumably, do not warrant attention in promotional materials.

The reality of the school community today presents many challenges to the students and staff. Dan points to the “negative
perception people have of vocational schools. Rather then being viewed as a great opportunity to receive valuable hands-on training that leads to tangible, industrial jobs, the “stigma is that these schools are only for behaviourally challenged, learning disabled students” (Personal communication, October 8, 2009). Dan claims that this trend is occurring elsewhere and the impact on the school is palpable with staff struggling to provide technical training. As a result of the public perception, many potential trade students no longer came to SS and the transformation quickly occurred from a vocational to special education school.

Nowhere is this transformation more evident than in the technical trade (tech) classrooms. The school is now in a position to have shop classes with increasing numbers of students who are not successful in such settings. The teachers who teach these trades and have experience in the trades are at odds with their job and expertise. An extensive interview with the foods department staff at SS points to major problems that have arisen. The foods department has had to get creative and change their entire program due to the change in student demography. As a result, ‘Paul’ leads an Autism Spectrum Disorder class of grades 9-11 in a small kitchen where he teaches life skills and feels this is at odds with what he was hired to do. The reality of the situation is seen in his recollection that the first day was spent “teaching them how to wash hands. They were frustrated [that] we couldn't get to baking, but each time one scratched his armpit, played with his hair, flicked his jacket zipper, wiped his nose, etc. he/she had to start again.” Paul recalls that “4 of the 6 were afraid to put a tray in the oven” (Personal communication, October 8, 2009).

The foods teachers, for their part, are making the best out of a challenging situation where they are not able to provide technical, industry related training to the vast majority of students. The few industry-capable students finish the paperwork, master the skills, and go on to work independently in the kitchen. These students now have to learn with less attention because of the increasing population of students who cannot work on their own. Paul reflects that “I still don't completely like it and it is a work in progress and each class is different.” In the cafeteria which serves a population of 500, Paul and his department have two or
three kids doing the bulk of the work while the rest are “learning not to be afraid of the fridge door and washing vegetables”. The reality is that out of a class of 15, 12 students will not find employment in the industry. Paul remains positive that “maybe we teach life skills at both ends of the student spectrum. We just seem to teach life skills by teaching tech skills” (Personal communication, October 8, 2009). He reminisced that it has been years since he has had a student go on to take culinary foods in college and misses the demographic of students he originally came to the school to teach.

Another challenge Dan outlines is that as technology advanced, the requirements of many trades “superseded the ability of many students.” There is no way the current funding model allows the school to keep up with the equipment needs of many programs (Personal communication, October 8, 2009). David agrees that the “lack of provincial and federal monies to keep shop equipment up to date with the real world” is disheartening for both staff and students (Personal communication, November 20, 2009). The result of funding challenges and board policy change has caused SS to move away from its purpose and become a place where the focus becomes life skills. Dan maintains that there is a place for life skills but it cannot be the only focus of the school. Dan states that after his 22 years he can firmly say that the best model is a composite school that provides the full range of academic and technical programming so all students have access and, in particular, those who plan to enter skilled labour are exposed to the trades.

CONCLUSIONS AND RECOMMENDATIONS

Ontario needs to examine the current reality of vocational education that is seemingly at odds with the ideas behind its formation and the current inclusionary philosophy of universal student success. Vocational education has its roots in providing all students with practical technical knowledge and skills but this case study unmasks some areas of concern. Additional research in this area will determine whether the findings of this case study can be generalized to other vocational education secondary sites in Ontario. The trend appears to be driven by policy changes which have tied vocational education to special educa-
tion in Ontario. The result is that technical education has wound up in a compromising position: vocational schools are no longer required to be available to all students; this is directly at odds with the egalitarian nature of education in Ontario in the 21st century.

The terms vocational and special education are by no means synonymous and the two areas of education were founded and formed with completely different aims. By marrying the two systems of education the ramifications for educators and students may be detrimental. This case study of an Ontario school raised many issues plaguing this marriage between vocational and special education. SS school has moved from being an option for all students to being only available to those who are formally identified as needing special education. The criteria of vocational education should not be solely deemed on ability level; the goal in the creation of vocational programming was to prepare students who are motivated to work in skilled trades after high school. By adding the requirement of functioning at least four grade levels below age-level, the majority of the school population is not in a college-bound stream.

As a result, the focus within SS curriculum programming has shifted from skilled trades to life skills, which is special education curriculum. Vocational schools were formed to provide a broad range of technical programming including high-level technical skills training and life skills training. However, by limiting enrolment to students who are exceptional, schools are compromising their technical education programs. By returning to inclusive enrolment and allowing any interested students to attend, the school may attract students with the motivation and ability levels to enter the skilled trades upon graduating.

Additional research in this area may lead education policy makers (at the provincial, board, and school levels) to question the current status of vocational education in Ontario and result in a more defined identity for this important branch of the education system. The aim of preparing students for jobs in technological trades has been completely lost in the current provincial programming policies that only allow certain students to access technological secondary school facilities. In light of the shortage of apprenticed workers in the province, one can only presume
that the education system has played a large role in creating the shortage. This shortage may be the result of individual boards limiting the exposure of the majority of students to technological programs in high schools. By making programs only available to particular students, Ontario has lost many potential trade workers and, arguably, perpetuated the shortage of skilled labourers. Although the government of Ontario is beginning to provide incentives to entice students to go into skilled trades programs, much more needs to be done to combat the growing shortage. Perhaps by forming new policies for vocational schools in Ontario and clarifying the role of technical training at the secondary level, the province will begin to make a concerted effort to address the systemic ramifications of the marriage of vocational and special education.

REFERENCES

Education in Ontario (pp. 50-54). Toronto, ON: Canadian Scholars’ Press.


Hyslop-Marginson, E., McKerracher, A., Cormier, J. & Desroch-


Kaiganich, G. (Personal communication, October 4, 2009).
Kaiganich, G. (Personal communication, October 8, 2009).
Kaiganich, G. (Personal communication. October 18-November 23, 2009).


of the United States.


Exploring Chinese International Students’ Understanding of and Attitudes to “Career” and Career Counselling Services
Yina Wang

Abstract
The purpose of this study was to explore Chinese international students’ understanding of the term “career” and their attitudes toward career counselling services. This research is situated in social constructionism which emphasizes the importance of cultural influences, social interactions and language in the construction of meanings. A qualitative inquiry using in-depth, semi-structured interviews was employed with eight senior undergraduate Chinese international students. Participants had differing ideas about “career” ranging from a functional view to formation of identity and talent development. Different attitudes towards career counselling were revealed as in expressing emotions and varied preferences for types of counsellors.

Introduction
The demographics on Canadian campuses have become internationalized following the adoption of the policy to globalize Canadian higher education (AUCC, 2007). Among the top support services offered by Canadian universities to attract international students are “on-going counselling and non-academic support” (AUCC, 2007). Yet, for a variety of reasons, “international students typically do not utilize counselling services as a resource” (Popadiuk & Arthur, 2004, p. 126).

Chinese international students account for 23% of full-time visa students in Canadian universities (AUCC, 2007). Although career related issues are a major concern for Chinese international students who want to stay in Canada and those who plan to return to China, studies about their career needs and perceptions of career counselling are limited. Researchers (e.g. Arthur, 2008; Arthur & Hiebert, 1996; Arthur & Stewart, 2001) argue that existing research tends to ignore the dynamic social and economic changes occurring in international students’ countries of origins and treats international students as a homogenous group. Typically, uniform quantitative methods are employed in the literature with regard to international students (Reynolds & Constant-
Thus, the purpose of this paper is to explore how Chinese international students define career and to examine their attitudes toward seeking help from career counselling services. This inquiry focuses on career counselling because this campus-based service could benefit Chinese international students; yet, it is not well understood and is underutilized (Leong & Sedlacek, 1989). Although the study is service specific and country specific, it illustrates broad issues that might apply to a range of human services offered to all international students on Canadian campuses.

This research is situated in a social constructionist theoretical framework that emphasizes the importance of social processes and interactions in the production of knowledge (Burr, 1995; Young & Collin, 2004). Social constructionism provides a new perspective within the literature of cross-cultural and career development research. Social constructionism challenges mainstream viewpoints and discovers new perspectives and meanings behind them (Stead, 2004). Reality and knowledge are socially constructed through dialectical interactions by those who share a culture (Xu, 2010). In the process of knowledge construction, language, which is “the collective generation of meaning as shaped by conversations of language and other social processes” (Schwandt, 1994, p. 127), is central to meaning-making. Social constructionism treats development as an on-going process influenced by diverse factors rather than identifiable stages that appear sequentially and predictably. Culture and history are conceived as dynamic rather than static and important for understanding the world (Burr, 1995). A social constructionist perspective recognizes that career conceptions are influenced by cultural and historical backgrounds, and are subject to evolving feelings plus ever-changing and embedded contextual factors. Thus, social constructionism will be used as a theoretical frame to discuss how Chinese international students define career, and how they perceive career counselling services.

**Meanings of Work, Job and Career**

What is a career? How can it be distinguished from work or jobs? Tolbert (1980) defines work as “purposeful mental, physical, or combined mental-physical activity that produces some-
thing of economic value [and that] may produce a service to others as well as a material product” (p. 32) and jobs as “a group of similar positions in a business, industry, or other place of employment” (p. 31). In terms of the difference between a career and a job, Adamson, Doherty and Viney (1998) suggested that “a career is not simply a job” but “embraces notions of development and logical progression” (p. 253). MacMillan (2007) noted that a job just means making money for people to secure their needs for living, but a career requires more of their emotional investment and attachment and is part of the meaning of a person’s life. One’s career may also influence one’s lifestyle, including leisure activities.

These perceived differences are considered primarily by career specialists but are seldom discussed in research studies. If professionals are to perceive how individuals understand their careers, it is important to consider how people talk about their careers (Cohen, Duberley, & Mallon, 2004). Without knowing clients’ perspectives on career-related issues, educational and psychological professional support may fail to help clients (Chaves, Diemer, Blustein, Gallagher, DeVoy, & Casares, 2004).

Through the lens of social constructionism which focuses on the on-going cultural and historical process, the meaning of career has changed several times throughout Chinese history. The Chinese character for career (职业) reflects the influence of ancient Confucian doctrine to portray a focus on duty and the hierarchical structure of the society at the time of feudalism in China (Schulte, 2003). After the founding of the People’s Republic of China, career meant “an individual’s total contribution to communism and social improvement” (Zhang, Hu, & Pope, 2002, p. 227). In the past three decades, influenced by a market-oriented economy, the idea of career has changed to embrace the question of how to survive in a large population with keen competition. The meaning of career has become just as important as financial income or the means to support family’s material well-being (Westwood & Lok, 2003).

According to Westwood and Lok (2003), the younger generation of Chinese who grew up in a transitional economic period seem more open to changes and challenges and more influenced by intrinsic factors for choosing careers such as interest and chal-
lenge. In 2005, a Chinese national online survey (www.Chinahrd.net) revealed that more than 80% of Chinese participants emphasized that intrinsic factors of work (such as “meaningful,” “influential,” “sense of achievement” and “recognition”) are more essential than extrinsic ones (such as “income,” “bonus” or “job security”). This finding corroborated Western and Lok’s suggestion that ideological change is occurring in Chinese society. Therefore, Chinese international students brought up in China’s expanding economic development might express different ideas about the meaning of career compared to older generations. For Chinese international students, the contextual situation of living in a different culture might bring further challenges as well as reflections and reconsiderations about the meaning of career-related issues.

Not only did a literature search reveal ideas about understanding of career and the historic evolution of meanings for Chinese international students, but perceptions towards career counselling and counsellors were also explored. Among areas considered relevant to this inquiry were perceptions of career counselling, emotional expression in counselling settings, counselling style and divergent preferences for counsellors.

**ATTITUDES TOWARD CAREER COUNSELLING SERVICES**

The literature often suggests that Chinese people mistrust and avoid professional help services because of the Chinese family-bounded tradition (Leong, Wagner & Tata, 1995; Sue & Sue, 1990). However, recent research (Goh, Xie, Wahl, Zhong, Lian, & Romano, 2007) revealed that both Chinese high school and university students hold positive perceptions of professional counselling services. The study also points out that student counselling services are still limited in China today—even in Shanghai and Beijing, the two largest cities, only 50% of schools from elementary level to university level have counselling services. Thus, the probability that mainland Chinese international students will underutilize counselling services on Canadian campuses could be attributed to a number of reasons. For example, if Chinese students’ prior perceptions or knowledge about career counselling are not taken into account, these services may be considered distant or detached. In addition, the lower admission
to counselling services might be caused by unfamiliarity with such services rather than distrust of outsiders of the family.

**Emotional Expression in Counselling Setting**

On issues about emotional expression of Chinese or Asian clients, cross-cultural psychologists have different views. Some researchers (Leong & Hartung, 1997; Sue & Sue, 1990) believe that Chinese clients are more inclined to handle personal and emotional issues within rather than outside of the family because disclosure might bring shame and disgrace to their families. Based on respect for an Asian tradition that values self-restraint rather than self-disclosure (Leong, Lee & Chang, 2008), counsellors are advised to purposefully avoid “talk-cure” and be cautious of exploring emotional topics when counselling Asian clients (Paniagua, 1998). However, other researchers disagreed with this standpoint. A body of literature suggested that international students experience similar stresses and confusions as local students (Arthur & Hiebert, 1996; Popadiuk & Arthur, 2004). First generation international students in Canada might endure greater mental health difficulties than second and third generations (Sharir, 2002). Spencer-Oatey and Xiong (2006) and Chen (2004) reported that Chinese students do suffer from psychological stress or experience social adjustment difficulties. Yi, Lin and Kishimoto (2003) revealed that academic difficulties, confusion about the future, relationship problems, loneliness, and low self-esteem could also cause international students to develop depression and anxiety. Some international students may experience reentry transition issues that cause worries and anxieties towards their home countries and a sense of loss after leaving the host country (Arthur, 2008). Arthur (2008) found that international students need to talk about these feelings. Yi et al. (2003) advocated that “it is important for academic and career counsellors to assess each international student’s overall functionality even though their initial presenting concerns may not be personal issues” (p. 339).

**Counselling Style**

In terms of directive or non-directive counselling styles applied in career counselling settings, the viewpoints are also di-
verse. Compared to directive counselling which is more task-focused, goal-oriented, straight-forward and structured, non-directive counselling entails unstructured processes filled with ambiguities and focused on clients’ emotional states (Leong et al., 2008). Rather than being counsellor-prescribed, non-directive counselling is client-centered with an emphasis on discovering one’s own solutions to problems. Leong et al. suggested that because Asian cultures highly value conformity, obedience and subordination to authority, therefore, directive counselling styles are considered to be more appropriate than the non-directive styles to be employed in counseling Asian clients. However, Arthur (2008) challenged that directive counselling style is not preferred by all international students. She said “as students gain experience with the host country, they may become more comfortable in working in more collaborative ways” (p. 284). Lau (1995) suggested that directive styles might transform into non-directive styles following the development of a relationship between the counsellor and students. Lau also believed that non-directive styles have long-term rewarding effects.

**DIVERGENT PREFERENCES FOR COUNSELLOR**

Researchers provide practitioners and professional service providers in working with Asian clients with various suggestions and recommendations. For instance, Paniagua (1998) recommended that counsellors show their professionalism by exhibiting their certificates or awards in order to enhance clients’ trust and preferences. Mao and Jepson (1988) found that Chinese students expressed a preference for counsellors with the same racial background. Leong and Hartung (1997) suggested that the lack of racially diverse bicultural staff might be another reason for underutilization of career counselling services by international students. However, Hom (1998) revealed that more acculturated students were more likely to express a preference for an Anglo-American counsellor over an Asian-American counsellor. Sue and Sue (1990) indicated that there are mixed findings regarding clients’ perceptions of the identity set of counsellors. Similarly, Arthur and Stewart (2001) claimed that clients do not have uniform preferences for types of counsellors in multicultural counselling settings.
METHOD

This research inquiry is based on a social constructionist theoretical framework which looks into deep layers of individuals’ specific cultural and social experiences as well as cultural and contextual factors in order to present multiple aspects of certain phenomena. More important, this research aims to explore the individual’s understanding and perceptions on the meaning of career and their attitudes towards career counselling services. Compared to quantitative methods, qualitative approaches are more likely to explore and discover the in-depth understanding and perceptions of an individual (Denzin & Lincoln, 2005) and interview is one of the key qualitative methods (Polkinghorne, 2005), therefore, a qualitative inquiry was employed using in-depth, semi-structured interviews. The advantages of interviewing include revealing rich and thorough information for data interpretation, and knowledge of the context of social interaction between the researcher and the participants.

Eight Chinese international students who were in the senior year of their undergraduate studies were selected for this research study through a purposive or snowballing technique (Polkinghorne, 2005). All eight were from Mainland China and enrolled in three different universities in Halifax, Nova Scotia.

Three to four hours were spent with each participant over three interviews. In the first interview, rapport was established and the interview questions were introduced. In-depth conversations took place in the second interview and ideas were clarified in the third interview. In the interviews, participants preferred to talk in English. Social constructionism believes that language functions within social roles (Gergen, 1994). Their perceived social roles might have influenced their decision on their choice of language in communication (Gergen, 1994) For example, (1) they might consider their roles as students first and Chinese second and/or (2) they might regard their roles as participants in a traditional type of academic research and/or (3) they see themselves as people with an ability of conveying ideas clearly in English and so on. Sometimes, participants inserted a couple of words or phrases in Chinese. I provided several alternatives for translations of the specific words or phrases for the participant to choose in order to make sure that the English version was as
close as possible to the meaning of their Chinese expression. This process of translation and confirmation was a joint process between the participant and me. Their expression sometimes differed from standard English. However, I considered their unedited quotes to be more authentic so made the decision not to transform them into standard English but to report them as spoken.

All conversations were audiotaped verbatim and summaries of interviews were sent to participants for member checks (Lincoln & Guba, 1985). The transcriptions were coded and analyzed for emergent themes, noting similarities and differences.

Profiles of each of the eight participants are highlighted in Table 1.

Table 1: Profile of Participants

<table>
<thead>
<tr>
<th>Name (pseudonym)</th>
<th>Gender</th>
<th>Age</th>
<th>University (1, 2, 3)</th>
<th>Education</th>
<th>Field of Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>P.1  Jessie</td>
<td>Female</td>
<td>≥ 25</td>
<td>1</td>
<td>3rd year</td>
<td>Nutrition &amp; IT</td>
</tr>
<tr>
<td>P. 2  Liang</td>
<td>Male</td>
<td>≤ 25</td>
<td>2</td>
<td>4th year</td>
<td>Commerce</td>
</tr>
<tr>
<td>P. 3  Linda</td>
<td>Female</td>
<td>≤ 25</td>
<td>3</td>
<td>4th year</td>
<td>Finance &amp; H.R.</td>
</tr>
<tr>
<td>P. 4  Mingming</td>
<td>Female</td>
<td>≥ 25</td>
<td>1</td>
<td>3rd year</td>
<td>Hospitality</td>
</tr>
<tr>
<td>P. 5  Ping</td>
<td>Male</td>
<td>≤ 25</td>
<td>3</td>
<td>4th year</td>
<td>Commerce</td>
</tr>
<tr>
<td>P.6  Qiang</td>
<td>Male</td>
<td>≤ 25</td>
<td>3</td>
<td>4th year</td>
<td>International Business</td>
</tr>
<tr>
<td>P. 7  Yangyang</td>
<td>Male</td>
<td>≤ 25</td>
<td>1</td>
<td>3rd year</td>
<td>Business</td>
</tr>
<tr>
<td>P.8  Yvon</td>
<td>Male</td>
<td>≤ 25</td>
<td>1</td>
<td>3rd year</td>
<td>Business</td>
</tr>
</tbody>
</table>
RESULTS

Three of several themes that emerged from the interview data in the larger study will be explored: (1) Multiple comprehensions of the meaning of career versus job and work, (2) Perceptions of career counselling services, (3) Diverse needs and preferences for career counselling and counsellors. Excerpts of these themes are intentionally reported in the present tense to capture the social constructionist process. They serve as a snapshot in the moment for the evolving stories of the eight participants.

MULTIPLE COMPREHENSIONS OF THE MEANING OF CAREER VERSUS JOB AND WORK

Different responses are generated by participants when they are asked to describe what career means and how it is distinguished from job and work. For some participants, such as Ping and Liang, career meant an industry or vocation, such as the food industry, service industry, health care industry and so on. This view is predominately functional; that is, it focuses on a group of related tasks. Some other participants, such as Linda, her view of career is more holistic. She addresses emotional and personality dimensions and appears to view career as part of one’s identity.

You are doing it for your whole life in those industries, maybe not in the same company. But you really love it. You have a lot of skills and experience and you want to contribute a lot of time to those things. That is career.

Some other participants, such as Yvon, associate career with pursuing interests, developing talents and adopting lifestyles. Some participants are readily able to distinguish career, job and work but one saw no difference: “They sound the exact same meaning to me” (Qiang).

Participants also differ in the level of generality that they apply to the notion of job, work and career. Some regard career as a bigger and broader term compared to job and work. For example, Ping related that career stands for “a broad future and a person’s life”. In contrast, he views job as a title such as cater-
ing supervisor that he has in his part-time job and work as a set of tasks that he must perform in that job. Jessie speaks similarly: “Career is a big thing. It is related with your future; what your life will get into. If you choose this kind of career, your life will relate with this.” Rather than use concrete examples, Yvon uses a metaphor of a person as a hunter who shoots at multiple targets or jobs over time that collectively add up to a career. For some participants, such as Yangyang, his view of career is far-reaching and extends to the idea of building a legacy. He says: “Career is something I can spend my whole life to do that. I can leave something for my children.”

Multiple comprehensions, contradictions and ambiguities with regard to the understanding of career present their independent thinking which are not unified with their parents’ values and the traditional teachings as the literature suggests (Leong & Hartung, 1997; Schulte, 2003; Sue & Sue, 1990; Zhang, Hu, & Pope, 2002) and also reflect the cultural changes which are occurring in a society.

PERCEPTIONS OF CAREER COUNSELLING SERVICES

When discussing what career counselling services are about, participants’ answers are varied. Three of eight have “never heard about it.” The reason might be that career counselling is still relatively new in China. Liang explains: “In China, in my city, there are not too many people who are doing this job”.

Since most participants have no clearly informed knowledge about career counselling services in China, their perceptions of career counselling are largely informed by their initial experiences of dealing with these services in Canada. Jessie had an unhappy experience with the people who defined themselves as career counsellors. Since then, she has difficulty developing trust in career counselling services. She says:

*Two years ago, some job agents, they opened a lecture in University 2. They were saying you have to pay 30 thousand US dollars for them to process. After you find a job and you have to pay ten percent or twenty percent every month for them.*
Her reaction is “they were cheating people.” In contrast, Linda has positive perceptions of career counselling services since one of her friends works in “a hunter company.” However, Linda’s definition of career counselling services is quite different from any theoretically defined career counselling services. Her understanding of career counselling services includes services that post jobs and help employers to hire the people who are interested in the positions. One of the few participants who had actual experiences with career counselling services on campus, Ming-ming described her experience as helpful. She speaks about getting help with resume writing, learning how to highlight personal strengths, and exploring expectations and interests:

_I think it’s very professional and based on my answers, she gave me the suggestions and told me that I need to prepare this and that in case there are something happen in the future._

These conversations demonstrate that if participants’ experiences are limited, their perceptions are more likely to be distant, detached or biased. If their experiences are rewarding, their perceptions are more likely to be positive. Within the group of eight, only one had an experience with university-based career counselling.

**DIVERSE NEEDS AND PREFERENCES FOR CAREER COUNSELLING AND COUNSELLORS**

Participants also discussed their preferences for different counselling styles. Liang, Jessie and Ping suggest that they like explicit directions although others prefer indirect ways. For instance, Liang says that he loves to hear a counsellor’s personal stories so that he can learn something from them. As he states,

_Normally, most counselling services provided the basic ability or personal skills for your career life, how to look for a job, how to get an interview. But sometimes if you meet very good counsellors, they have a very rich experience, and very rich life stories, they probably can_
teach you or share their work experiences or personal experiences with you. Then, you can learn much more useful stuff on how to deal with your career life in the future.

Participants also differ in their comfort level for expressing or sharing their emotions and personal concerns with career counsellors. Linda, Yvon and Yangyang appear to be more likely to launch topics with regard to their emotional struggles and personal difficulties in dealing with career related issues. Yangyang recognizes that finding a job is a complex issue: “You have to make a lot of decision regarding on your family or friends or current financial situation … I prefer to talk about my current situation and help me find a better way to deal.”

Others tend to be comparatively conservative about engaging in deeper and more private discussions. For example, Liang feels that it is risky to express his feelings on issues not directly related to career. He prefers to talk with his parents or friends because “they can protect the privacy.” Similarly, Jessie relates: “Probably, they (career counsellors) can help me with financial problem but not family problem.” These who prefer not talking about their emotions are also more inclined to have a positive attitude toward directive-counseling style which can offers them with structured and directive solutions, for example, Ping says, “If I was at certain age or stage, he should give a general job title for me and provide me with general long-term solutions.”

In addition, there is no consensus on career counsellor preferences among the eight participants. Some emphasize the importance of professionalism, a concept that has different meanings for different people. Mingming regards the counsellors she met as professionals who offered suggestions “base on your personality and base on your interests and background.” For Linda, professionalism goes beyond teaching people how to write a resume or cover letter, skills that can be learned from books or the internet: “But internet and books cannot tell me what kind of person I am and what kind of personality I have. So I need some professional people to tell me what kind of person I am, and in what industry I may have a better career.”

Linda also implies that career counselling can be comple-
I know there are some psychology tests online but I do not really like it because they are more like robot. You may get 10 to 20 of 100 percent, 20 to 30, I may get 10.5, you know, at the curve. So I need counsellors who tell me specific things that fit me.

Others focus on the counsellor’s experiences. Some participants value a career counsellor with similar experiences as well as an understanding of their cultural background. As Quiang relates: “He [career counsellor] will have similar experiences with mine. We will have more things in common. He will know what feelings I have. Probably he went through some psychological stages as me.” Yvon also valued someone with similar experiences and cultural background: “I will choose … a person who grew up in China, immigrate to Canada or whatever. I think, at this point, we have some common things and we can feel [empathize with] each other.”

However, for other participants, a career counsellor who has insightful knowledge of local society and culture might be more desirable than the one who shares their ethnic or social identity. Ping, Jessie and Mingming express the view that neither ethnic nor social identity matter, “as long as they are career experts” or “as long as they know my inquiry, it’s O.K.” or “I trust them if they already have accepted counselling education and background, so they know in which way they can help me.”

**DISCUSSION**

Overall the three themes explored in this article reflect diversity in the perceptions, experiences, concerns and needs of participants. Such diversity not only reflects social constructionist theory but it also provides insight into the mixed and contradictory findings located in the literature which offers different suggestions and recommendations on counselling minority groups of people.

Participants talked about their own understandings about the meaning of career. Participants’ concepts of career range...
from a functional dimension to an emotional one. Participants’ construction and way of framing the meaning of career are individualized and diversified. Different concepts of career implicitly or explicitly manifest their ideas about their future lives. In addition, participants’ emphasis on emotional and personality dimensions of career also revealed aspects of sociocultural changes influencing Chinese society in recent decades.

Lau (1992) indicated that Chinese are no less individualistic than Americans. However, many cross-cultural studies essentialize culture as a moderating or antecedent variable that can be generalized (Stead, 2004). Traditional quantitative approaches to understanding career decisions in different cultural groups often depict collectivism and individualism as two opposite camps. Collectivism is defined as a worldview based on the assumption that groups such as family, clan, ethnic, religious and other groups “bind and mutually obligate individuals” and that “the personal is simply a component of the social, making the in-group the key unit of analysis” (Oyserman, Coon, & Kemmelmeier, 2002, p. 5). Individualism is defined as “a worldview that centralizes the personal—personal goals, personal uniqueness and personal control—and peripheralizes the social” (Oyserman et al., 2002, p. 5). However, Draguns (2008) indicated that it was difficult to separate individualism and collectivism. He noted that individualists may have collectivistic needs to avoid their loneliness and alienation and “some people in collectivistic societies feel stifled by social pressures and obligations and have a sense of being thwarted in the realization of their personal aspirations” (p. 28). According to social constructionism theory, this dualism tends to “oversimplify complex phenomena” (Stead, 2004, p. 396) and limits the breadth and depth of culture. In this study, as Mingming stated,

*I think, for the foreigners, we all have the Asian face— we have black hair and black eyes. They think we are Asian or Chinese. They think Asian people, or Chinese are all the same. But for the individuals in the group, we are different persons.*
Differences among the eight participants are most evident as contradictions and multiple ways that participants construct the meaning of career, motivations for work, personal goals and so on. Thus, it is inappropriate for counsellors to stereotype clients with regard their racial or ethnic membership (Osipow & Fritzgerald, 1996).

Even though students showed a certain degree of resilience, some still expressed a need for professional help. However, in talking about their perceptions of career counselling services, students displayed confusion or misunderstandings about accessibility and expenses associated with these services. Some of them didn’t know that universities actually offer this type of service. Some could not believe that this service is available for free. However, this finding does not coincide with the idea that Chinese people do not trust career counselling services because of traditional Oriental culture with family-bounded characteristics (Leong, Wagner & Tata, 1995; Sue & Sue, 1990). Goh et al. (2007) indicated that student counselling services are still limited in China. This study reveals that owing to a lack of previous experience and knowledge about career counselling, participants’ perceptions of the concept and purpose of career counselling services are most likely distant. After they were introduced to a basic knowledge about what services career counselling centers normally provide for university students, most participants showed a great interest and expressed a willingness to visit it sometime in the near future.

Students also expressed their different needs for counselling styles. Some participants would like to share their personal stories with counsellors and some feel that it is important to express their emotions in front of counsellors. Not all participants desire a straightforward directive counselling style as some cross-cultural psychologists (Leong, Lee, & Chang, 2008) recommend for cross-cultural skills. Finally, not all participants have preferences for the same racial or ethnic background as themselves as suggested by Mao and Jepson (1988). Some international students would prefer local counsellors who would better explain local cultural tendencies. This finding supports findings in Hom’s (1998) research. Although some students prefer talking with a counsellor born in the local Canadian cul-
ture and some expect to have career counsellors with similar cross-cultural experiences, all were interested in gaining lessons from the positive experiences and personal stories that counsellors could share. This finding implies that career counsellors can have a more far-reaching impact on the lives of international students than these professionals might realize.

IMPLICATIONS
It is not the intention of this inquiry to produce claims that can be generalized. Rather, the purpose is to reveal deeper understanding and insights into the unique experiences, needs and concerns of participants. However, the study still has the potential to inform cross-cultural research and counselling.

Cross-cultural research in counselling should keep current with social and cultural changes happening in particular countries or regions. Cross-cultural counsellors could combine contemporary approaches with some consideration of cultural and traditional influences rather than simply follow the ancient doctrine and philosophies when examining and analyzing issues of concern. The within-group differences reflected in this study once again suggest that it is unreliable to generalize Chinese international students as a unified group of people. These students do not have identical thinking, behaving and adjusting patterns with regard to their study skills, living abilities and ideologies.

In addition, although participants elaborated their knowledge about the meaning of career affirmatively, they still appeared slightly concerned and bewildered by career choices they might face in the near future. However, this feeling of uncertainty cannot be seen simply as a transition from school to work (Mortimer, Vuolo, Staff, Wakefield, & Xie, 2008). Participants’ feeling of uncertainty grew primarily from their considerations of many issues such as parents, family, political and economical environment and individual interest. It is important for counsellors to have an awareness of the students’ cultural and social background as well as a grasp of individual’s characteristics, familial background, and social perceptions.

Universities should organize orientation programs several times a year to introduce career counselling services to Chinese
international students. This practice would encourage more Chinese students to learn about career counselling services and what kind of help is available.

When local Caucasian counsellors are working with Asian students, they should not be overly concerned with the possibility of cross-cultural distrust and barriers. Based on their knowledge of the host culture, local counsellors should consider themselves as mentors for international students in their learning process. On the other hand, bicultural counsellors should consider themselves as both role models and mentors who, based on their personal experiences, can guide international students through various cultural transitions.

REFERENCES


Reynolds, A.L., & Constantine, M.G. (2007). Cultural adjust-


ism and social constructionism in the career field. *Journal of Vocational Behaviour, 64*(3), 373-388.
A REVIEW OF THE LITERATURE: THE IMPACTS OF PARENTAL ILLNESS ON ADOLESCENT SCHOOLING
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ABSTRACT
There is a dearth of studies that consider the impacts of parental illness specifically on engagement and achievement levels of adolescents in school. This literature review presents the knowledge and ideas that have been established in the research on parental illness and adolescent schooling over the last twenty years, and identifies the methodological, conceptual, and theoretical strengths and weaknesses that surface in this area of study. A noteworthy observation from this review is that greater qualitative-based research designs are needed in this area of study, as this can allow for a more in-depth and personalized understanding on the impacts of parental illness. The overall intention of this review is to lay the groundwork for devising, improving, and implementing multiple pathways and hypothesis for future studies to consider. Assuming a variety of research directions and taking into consideration the limitations that are currently present (such as the shortcomings outlined in this review) would certainly lead to both theoretical/scholarly and practical benefits.

INTRODUCTION
Whether it is cancer or bipolar disorder, an individual experiencing an illness is faced with an endless amount of physical, mental, and social dilemmas, such as a loss in energy, increased anxiety, or strained relationships with family members. Such dilemmas usually depend on the type and severity of illness (Pederson & Revenson, 2005). Although it is important to identify an individual’s experiences in having either a mental or physical illness, I suggest that it is also necessary to investigate how the people around them are affected (e.g., family members, friends, peers, and co-workers). According to Vannatta, Gronman, Noll, and Gerhardt (2008), the impacts of illness “...need to be conceptualized at the interpersonal as well as the individual level” (p. 252). Pederson and Revenson (2005) argue that the majority of literature in this area initially focused on the impacts
experienced by an individual who is ill themselves. Eventually, studies began investigating how others are impacted when a person is ill. However, a substantial part of this literature remained more concerned with the impacts on parents when their children or spouses are ill (Pedersen & Revenson, 2005). I find that concern for children affected by parental illness has been relatively neglected, even though there is evidence that parental illness “...affects almost every aspect of child development, from the time of exposure through to adult life” (Manning & Gregoire, 2006, p. 10). Research focusing on children with an ill parent became more apparent following the mid eighties (Lewis, 1986), but studies primarily concentrated on childhood and rarely considered adolescence (Pedersen & Revenson, 2005).

According to Tussing and Valentine (2001), adolescents may be the most vulnerable to parental illness due to the number and degree of transitions (e.g., entering into a new educational environment and negotiating between physical identities) experienced during their particular stage in human development. As they grow and face transitions along the way, adolescents aspire to generate independence from their families, and establish their own autonomy, value systems, and relationships. However, when a parent becomes ill, adolescents are “...pulled in a reverse direction from the natural course of emotional separation from the family, and brought into re-intensified contact with parents” (Wellisch, 1979, p. 166). At the same time, having an ill parent can also work to increase independence, as an adolescent may be forced to learn and assume a number of responsibilities. Pederson and Revenson (2005) suggest that adolescents possess great cognitive resources and are old enough to have already experienced or endured prior distressful circumstances. These types of characteristics can help adolescents with an ill parent better adapt to their situation, and can also allow for greater resilience towards distress.

Adolescents can be affected by parental illness differently than young children or spouses, and consequently, their experiences in school may vary. However, the impacts of parental illness on adolescent schooling are not often considered. Vannatta et al. (2008) argue that “little research has examined the impact of [parental illness] on the adjustment and developmental out-
comes experienced by children beyond the nuclear family, [such as] at school, with peers, and in the community” (p. 252). Similarly, Osborn’s (2007) systematic review on the impacts of parental cancer revealed that a majority of studies (e.g., Armsden & Lewis, 1993; Birenbaum, Yancey, Phillips, Chand, & Huster, 2005; Cappelli, Verma, & Korneluk, 2005) focus on the development of anxiety, depression, post-traumatic stress disorder, and self-esteem disorders in children and adolescents. The impacts identified above may have the potential of affecting a student’s schooling, but rarely is this stated explicitly. According to Manning and Gregoire (2006), parental illness within a family is a potential predictor of poor academic performance, and therefore, should be frequently included as a determinant. I strongly argue for the development of more studies that look particularly at adolescent schooling when exploring the impacts of parental illness. In my opinion, greater scholarly attention that considers the impacts of parental illness on adolescent schooling can assist health and education practitioners in developing more effective strategies of support.

A DEFINITION OF TERMS

Before delving into a review of the literature on how parental illness can impact adolescent experiences in school, I think it is important to define and describe some of the terms or ideas associated with this research topic, particularly illness, schooling, engagement, and achievement. Garro (2000) suggests that the meaning of illness varies cross-culturally, but the most common definitions are based on scientific or medical systems of thought. Therefore, in accordance with the research, I define illness through a biomedical perspective. Mental illness (also commonly referred to as psychological disorder) can be defined as an illness or disorder affecting the psyche or the mind (Weiten, 2004). People are usually identified to have psychological disorders when their behaviour becomes unexpected, maladaptive, or stressful. I would suggest that those whose behaviour deviates from cultural norms and constructions are also commonly identified as having a mental illness (which presents as a topic definitely worthy of future exploration). The Diagnostic and Statistical Manual of Mental Disorders (DSM) is a system that records
and provides a sound taxonomy of mental illnesses, including anxiety and mood disorders.

Conversely, physical illness is commonly referred to as simply illness, disease, or bodily disorder. In contrast to mental illness, physical illness is not directly relative to the mind or psychology, but rather to a diagnosis stemming from, or relating to the body. More specifically, it refers to an alteration “...in the state of the body or of some of its organs, interrupting or disrupting the performance of the vital functions, and causing or threatening pain and weakness” (University of Newcastle Online Medical Dictionary, 1997-2007). Although mental and physical illnesses are distinctly defined, they are related in the sense that a physical illness can lead to a mental illness, and vice versa. In my opinion, this is the reason why researchers, such as Rolland (1994), suggest that when dealing with illnesses, it is beneficial for investigators from different disciplines (e.g., physicians, psychologists, and social workers) to offer their own assets and liabilities.

I refer to Griffith and Smith’s (2005) research on the work mothers complete for their children to define schooling. Schooling can be described as a student’s experiences with all that contributes to their education (Griffith & Smith, 2005). This includes their engagement and achievement within the classroom and school-based extra-curricular activities (e.g., school plays), as well as their involvement in educational practices at home, such as homework completion. It is also essential to clarify my understanding of engagement and achievement, as these terms are often defined in various ways. I draw from ideas proposed by Fredricks, Blumenfeld, and Paris (2004) to discuss school engagement and achievement. Fredricks et al. evaluate the theories and beliefs of researchers (e.g., Finn, 1993; Karweit, 1989; Skinner & Belmont, 1993; Zimmerman, 1990) to generate a more detailed understanding of engagement, and in turn, how engagement affects achievement. According to Fredricks et al., engagement is defined in three manners: behavioural, emotional, and cognitive engagement. Behavioural engagement can include positive conduct, involvement in learning and classroom tasks, and participation in school-related activities. Emotional engagement refers to positive and negative reactions or attitudes to-
wards peers, teachers, and academics that influence a willingness to be connected to an institution and complete schoolwork. Lastly, *cognitive engagement* refers to a psychological investment in learning (e.g., effort to its full potential being put forth and the want for more challenging homework), and to being a strategic learner (e.g., using intuitive techniques when studying, such as rehearsal or summary). The level or degree of each type of engagement varies, meaning that a student does not always encompass every characteristic listed under each type. Regardless, Fredricks et al. argue that when evaluating engagement, these three dimensions must all be considered in order to understand the complexity of student experiences within school.

*Achievement* (also commonly referred to as *performance*) is generally determined by assessing a person’s success or abilities when measured against a particular standard. Fredricks et al. (2004) suggest that achievement is usually determined by a student’s attainment on tests administered by the school, student self-report forms, and overall grade averages. They report a number of (predominately quantitative) studies (e.g., Connell & Wellborn, 1991; Finn & Rock, 1997; Marks, 2000) that demonstrate a strong correlation between engagement and academic outcomes, including dropping out of school. In other words, students who portray a high level of engagement often obtain higher achievement levels while those who display poor engagement are commonly low achievers, have little interest in pursuing an education past the secondary level, and may actually drop out of school altogether. However, they suggest that there are definitely cases where engagement and achievement do not correlate as easily, and this may have to do with individually-based factors (e.g., socioeconomic status and gender).

**A Presentation of Literature**

This literature review includes research (within the last twenty years) that explores the impacts of parental illness on an adolescent’s schooling experiences, as well as research that examines the school strategies developed to assist this particular demographic. First, I review the literature that identifies parental illness as problematic for adolescent schooling experiences as well as the research where the impacts of parental illness are...
viewed in a more positive light. Second, I present the literature that focuses on the development and implementation of support strategies for adolescents with an ill parent. Third, I outline the gaps or areas where further inquiry is warranted, such as the limited number of studies that are qualitative in nature or that address the difficulties in accessing support strategies for adolescents.

**Parental Illness as Problematic for Schooling**

The majority of studies in this area of research suggest that parental illness can cause problems for an adolescent’s schooling (e.g., Farahanti & Marcotte, 2003; Hirsch, Moos, & Reisch, 1985; Lester, Stein, & Bursch, 2003; Schrag, Morley, Quinn, & Jahanshahi, 2004b). Farahanti and Marcotte’s (2003) quantitative study investigates the likelihood of an adolescent completing high school if he or she has a parent with a mental illness or psychiatric disorder (including depression, anxiety, alcohol abuse, drug dependence and/or abuse). Data are gathered from the National Comorbidity Survey (NCS) and measured using a model of human capital investment (Becker, 1964), which takes into account the individual (student) characteristics, family characteristics (e.g., income), any exogenous factors (e.g., market/economy), parental issues, and psychiatric disorders. Farahanti and Marcotte’s (2003) study reveals that adolescents with a psychiatrically ill parent are at a greater risk of dropping out than adolescents with a healthy parent. It appears that “…psychiatric disorders among the mothers [compared to fathers] have more substantial negative effects, and that the girls are more negatively affected than boys” (p. 175). They suggest that a female adolescent’s schooling is likely more impacted by the effects of a mother’s mental illness because mental illness limits a mother’s ability to advise, guide, and monitor her children, and commonly, the adolescent daughter is required to fulfill the traditional family obligations, such as cooking, cleaning, and caregiving that an ill mother is no longer able to accomplish. With respect to the other characteristics tested, such as race and age, Farahanti and Marcotte (2003) demonstrate that such variables were not statistically significant factors that influenced the dropout rates of adolescents with an ill parent.
Also looking specifically at psychiatrically-based illnesses, Somers (2006) studies the impacts of having a schizophrenic parent on children and adolescents. Her research focuses on how health, education, leisure activities, home tasks, family, and friendships are affected for children and adolescents when having a parent with schizophrenia, compared to having a healthy parent. The subjects of the study include parents with the illness (i.e., patients attending mental health services in South West Dublin), and children and adolescents (aged 8 to 16 years). Semi-structured interviews and The Social Behaviour Assessment Schedule (Platt et al., 1980) are used for data collection. The impact on schooling is assessed through the following categorizations: missed days at school, no problems at school, behaviour problems, and school refusal. The results reveal that adolescents with one schizophrenic parent “…had similar profiles to the children [including adolescents] of well parents in the areas of physical health, positive family feelings, friendships, hobbies, and household tasks” (Somers, 2006, p. 1319). However, the adolescents of one schizophrenic parent experienced “…more psychiatric disturbance, more problems associated with school, less contact with relatives, and spent more time at home” (Somers, 2006, p. 1319). For example, 47% of children and adolescents with an ill parent (sample group) missed days of school, while only 24% of children and adolescents with a healthy parent (control group) demonstrated such absenteeism (i.e., the former missed significantly more days than the latter). Furthermore, 41% of the sample group displayed behaviour problems in school, compared to 29% in the control group. Within her discussion, Somers (2006) explains that the stigma of having an ill parent is one major reason as to why these children and adolescents endured greater difficulties, as they can often absorb the negativities of their situation and neglect to seek assistance.

Similar findings are notable in the studies that solely investigate parental physical illnesses. Lester et al.’s (2003) longitudinal study aims to determine if the somatic symptoms experienced by a parent with HIV can cause similar somatic distress in adolescents (aged 11 to 18 years). Somatic symptoms are characterized as changes or functions relating to the body, such as headaches (Weiten, 2004). In addition to interviews and a ques-
tionnaire, data relative to school are collected using a four items scale (i.e., 1) dislikes school; 2) is a poor student; 3) poor relations with teachers; and 4) poor relations with classmates). Lester et al.’s (2003) study reveals that the adolescents who portrayed similar somatic symptoms as their ill parent experienced academic difficulties and feelings of not wanting to go to school. Although this correlation was found at the beginning of the study and not at follow-up, Lester et al. (2003) speculate that school problems may have continued to persist as a result of the somatic symptoms experienced, but adolescents may have been more focused on their physical symptoms that resulted instead.

Schrag, Morley, Quinn, and Jahanshahi (2004a) also examine the impacts of a parent with a physical illness, as they compare the Quality of Life (QOL) of children and adolescents with epilepsy to children and adolescents without epilepsy, but of parents with Parkinson’s disease. The objective of the study is to determine which group experiences greater difficulties with memory and concentration, social support, family functioning, communication, understanding, and school behaviour. The study subjects include males and females (aged 12 to 48 years) who either have epilepsy or a parent with Parkinson’s disease. Data are gathered through questionnaires, which include a number of sub-scales, such as the Rosenberg Self-Esteem Scale (Rosenberg, 1965). Schrag et al.’s (2004a) study reveals that children and adolescents with epilepsy and those of parents with Parkinson’s disease portrayed an equal extent of poor school behaviour, because these groups can similarly lack information on a disorder, may not have someone to talk to, and may not receive enough external support.

A need for children and adolescents to access more information on a disorder is also unveiled through Coldstream and May’s (2006) compilation of literature on the potential effects of having a parent with chronic renal failure (a physical illness). According to Coldstream and May (2006), most of the effects appear negative. Of the many studies reviewed by Coldstream and May (2006), four (Auer, 2002; Friedlander & Vienderman, 1982; Hoover, MacElveen, & Alexander, 1973; Tsaltas, 1976) consider the impacts of parental chronic renal failure on student schooling. For example, in ‘Tsaltas’ (1976) study, the sample
children and adolescents (aged 6 to 18 years) demonstrated behaviour problems at school and fewer opportunities for interactions with peers.

In addition to focusing on either a mental or physical illness, some studies consider both (e.g., Anderson & Hammen, 1993; Hirsch et al., 1985). Anderson and Hammen (1993) investigate the impacts of bipolar (mania and depression), unipolar (depression), and medically ill (diabetes and arthritis) mothers on children and adolescents (aged 8 to 16 years) in comparison to children and adolescents with healthy parents over a three year period. The impacts on children and adolescents that are measured include school behaviour, social competence, and academic performance. Data on school (such as academic performance, behaviour, and peer relations) are gathered from mothers (who ranged in age and stage of disease), children and adolescents (both males and females), and teachers through interviews, as well as school reports (e.g., record of suspensions), the Conners Teacher Rating Scale (Conners, 1969), and the Child Behaviour Checklist (Achenbach & Edelbrock, 1983). The results reveal that children and adolescents of unipolar mothers experienced significantly more chronic behavioural problems in school and poorer academic performance when compared to those of bipolar, medically ill, and healthy mothers (Anderson & Hammen, 1993). Although children and adolescents of mothers with bipolar disorder often ranked as having the second most difficulties, the differences uncovered between children and adolescents of bipolar, medically ill, and healthy mothers in the areas of school behaviour and performance were not as significant, but present nonetheless. Anderson and Hammen (2003) propose that the children and adolescents of unipolar and bipolar mothers suffered the most because of being exposed to more stressors and negative mother-children relations. This study determines that high stress levels and negative relations were influential on the extent of school impacts experienced.

Hirsch et al. (1985) also acknowledge both mental and physical health conditions in their examination on the effects of parental illness on an adolescent’s self-esteem, school and family, and overall life events. Parents with depression and arthritis are compared with non-ill parents. Data are gathered from parents
and adolescents (both groups varied in age and gender). Schooling is assessed using a scale (Epstein & McPartland, 1976) that measured school satisfaction, commitment, performance, and reactions to teachers. The results show that the schooling of adolescents with depressed parents suffered the most, followed by adolescents of parents with arthritis, and the healthy parent group being least affected. Hirsch et al. (1985) suggest that the low scores in school satisfaction, commitment, performance, and reactions to teachers stemmed primarily from the low self-esteem measures, and similar to Anderson & Hammen (2003), from an increased number of negative life events adolescents experience as a result of parental illness.

Lastly, Janes, Weeks, and Worland (1983) compare teachers’ evaluations pertaining to adolescents of parents diagnosed (based on the DSM II and DSM III) with schizophrenia, schizoaffective disorder, affective disorder, “other” psychiatric problems, disturbances, or physical illness to evaluations of adolescents with healthy parents. Using the Hahmemann High School Behaviour Rating Scale (Spivak & Swift, 1967) and the Pupil Rating Form (Watt, Stolorow, Lubensky, & McClelland, 1970), the impacts of parental illness on adolescent schooling are evaluated based on measures including (but not limited to) scholastic motivation, harmony, reasoning ability, verbal interaction, rapport with teacher, and intellectual independence. According to Janes et al. (1983), adolescents with parents who have a DSM III diagnosis of schizophrenia or major affective disorder demonstrated significant differences from those with healthy parents, compared to the other illnesses that demonstrated less significant outcomes. More specifically, the results reveal that “adolescents who have a parent with a DSM III diagnosis of schizophrenia or major affective disorder were rated lower than children of non ill parents in scholastic motivation, harmony, emotional stability, flexibility, and acceptance of others” (p. 238). Janes et al. (1983) identify fewer significant effects experienced by adolescents based on all of the DSM II diagnoses. Furthermore, socioeconomic status is noted as a significant factor in 6 of the 17 measures.

PARENTAL ILLNESS VIEWED IN A POSITIVE LIGHT

Although research in this area appears to confirm that paren-
tal illness causes difficulties for adolescents in school, a number of studies (e.g., Aldridge & Becker, 2003; Hoke, 2001; Pederson & Revenson, 2005; Reupert & Mayberry, 2007b) present this issue in a more positive light. Hoke’s (2001) study explores the impacts on child and adolescent functioning and adjustment in life (including school) when having a mother with breast cancer (at various stages), compared to having a healthy mother. The study subjects include mothers with breast cancer, and children and adolescents (aged 8 to 16 years). The data relative to school are gathered and measured using the Youth Self-Report checklist (Achenbach, 1991) that considers a Total Problems Score (measuring behaviour) and a Social Competence Score (measuring school, extra-curricular, and social functioning). According to Hoke, children and adolescents of mothers with breast cancer did not differ (on any of the outcome measures) from children of mothers with benign biopsies. Some of the measures include school and social functioning, anxiety symptoms, behaviour problems, adjustment, and social competence. At times, children and adolescents of mothers with breast cancer reported better functioning (including in school) during their mother’s distresses when compared to the group with healthy mothers. Hoke suggests that children and adolescents of mothers with breast cancer “...may have looked to outside activities to help them cope with the situation at home, or they may have tried to help their mothers when they were more distressed by doing better in school and social activities” (p. 368). Hoke decides that this may have been the reason why there were few significant differences between the study groups, or why children and adolescents of mothers with breast cancer scored better at times.

Vannatta et al.’s (2008) study also investigates women with breast cancer, and similarly does not uncover many differences between the children and adolescents of these mothers and those with healthy mothers. The objective of Vannatta et al.’s study is to evaluate the friendships, social interactions, and peer acceptance in children and adolescents (aged 8 to 16 years) of mothers recently diagnosed with breast cancer. The study subjects include ill mothers, children, adolescents, teachers, and comparison peers (individuals with healthy parents). Data from these subjects are collected using the Revised Class Play tech-
nique (Masten, Morison, & Pellegrini, 1985), a Best Friend Nomination method (Bukowski & Hosa, 1989), and peer acceptance ratings (Asher, Singleton, Tinsley, & Hymel, 1979). The results reveal that children and adolescents of mothers with breast cancer appeared similar to comparison peers on measures of pro-social behaviour, leadership popularity, aggressive-disruptive, and sensitive-isolated. However, males of mothers with breast cancer were deemed as being more sensitive-isolated than comparison male peers, but the researchers conclude that the difference was not statistically significant.

Contrary to Hoke (2001) and Vannatta et al. (2008), Aldridge and Becker (2003) examine the impacts of mothers and fathers with a mental illness. More specifically, Aldridge and Becker’s study investigates 40 families of parent(s) diagnosed with different types of severe and enduring mental illnesses (e.g., bipolar disorder and schizophrenia), and how the impacts of their illnesses affect their children and adolescents’ development and transition into adulthood. The participants in the study include parents with mental illnesses, children and adolescents (ranging in age and gender), and any key professionals (e.g., social worker) connected to the families. Data are gathered through surveys and interviews. Although their findings indicate that the children and adolescents of mentally ill parents experienced physical, psychological, social, and educational crises, Aldridge and Becker highlight that some of the negative outcomes stemmed from the point of view of the ill parents. The children and adolescents did feel extra pressure and responsibility in response to their parent’s illness, but half of them also described their parent’s illness as a positive experience (e.g., filial closeness, heightened maturity, enhanced friendship experiences, and better understanding for vulnerable people).

Although not the focal point in studies, there appears to be an understanding that an encouraging outcome for adolescents is possible in response to the impacts of parental illness. Researchers seem to recognize the need for studies to undertake this type of a positive standpoint. In their review, Pederson and Revenson (2005) demonstrate that although under-researched, positive outcomes for adolescents can develop in response to the impacts of parental illness. For example, some adolescents acquire skills,
such as self-reliance, when they are forced to care for their own needs without parental assistance (Pederson & Revenson, 2005). Reupert and Mayberry (2007b) support the above insights, as they suggest that parental illness allows for children and adolescents to assume the role of caregiver, and in this role, they can learn to be more independent. Finally, Korneluk and Lee’s (1998) review reference a number of studies (e.g., Howes, Hoke, Winterbottom, & Delafield, 1994; Wellisch, Gritz, Schain, Wang, & Siau, 1991) that reported no elevated risks (including anxiety, depression, behaviour problems) for adolescents with chronically ill parents.

SCHOOL STRATEGIES THAT SUPPORT ADOLESCENTS WITH AN ILL PARENT

Several researchers (e.g., Nakou, 2004; Reupert & Mayberry, 2007a) offer suggestions on the ways schools support (or should be supporting) students in these circumstances. The most common form of assistance identified within the literature is through social support services that include different methods of intervention and guidance in school. Group interventions based within schools appear as a popular method of assistance within the research (e.g., Diarem, Tsiantis, Romer, Tsalamand, Anasontzi, Paliokosta, & Kolaitis, 2007). Members of these groups can include students, their family members, and educators. Fobair (1997) suggests that group intervention programs initiated through schools are more beneficial than agency-based programs, as treatment costs less, is available to more than one person at a time, and provides people who feel alienated with a sense of security and kinship.

In addition to group-based programs in schools, educators can also offer simple and non-costly supportive strategies. Reupert and Mayberry’s (2007a) study investigates the strategies used by teachers, school counsellors, and principals to assist children and adolescents of parents diagnosed with a mental illness. Data are collected from six teachers (four secondary and two primary), two school counsellors, and one high school principal through semi-structured interviews. Reupert and Mayberry uncover a number of useful strategies initiated by educators, such as departmentalizing larger tasks into smaller ones, encour-
aging close relationships between school teachers, administrators, and fellow peers, and creating a whole “culture of caring” that stressed the importance of open communication channels between school, home, and community.

Individuals within schools that are not necessarily “educators” can also provide support. Laccetti and Vessey (2007) highlight how school nurses can assist children and adolescents who struggle with the impacts of parental illness. They propose that school nurses can help students medically, and provide them with greater information about their parent’s illness and how to deal with the outcomes. Nurses can help ensure that a student with an ill parent maintains their usual routines, which attempts to “normalize” their particular situation. They can help teachers understand the impacts of some assignments on students who live with an ill parent, and in turn, help them restructure activities or tasks in more positive or manageable ways.

Some researchers identify methods of assistance that are not always based within schools, but are still applicable for educational contexts. Following their study, Reupert and Mayberry (2007b) highlight the importance of human service and health agencies in helping individuals cope with the impacts of parental illness. Furthermore, they suggest specific types of assistance that are (or should be made) accessible for children, adolescents, and their families, such as crisis plan kits and illness coping information programs available through the internet. Schools have the resources to connect students and their families to these types of support services. Along similar lines, Tussing and Valentine’s (2001) research investigates the use of bibliotherapy (reading combined with therapy by a trained professional) as a treatment modality. They examine and consider eleven young adult fiction books as a therapeutic tool for adolescents with a mentally ill parent. Tussing and Valentine (2001) suggest that bibliotherapy helps adolescents to better understand and treat their problems. Schools can play an important role in aiding the bibliotherapy treatment process by contacting the necessary professionals and providing books through their libraries.

Most of the support mechanisms identified above are commonly accessible to students in elementary and secondary schooling. Support mechanisms at the post-secondary level are
also worthy of exploration. I searched for support options available for students in need (particularly those with an ill parent) on the websites of five post-secondary institutions in Ontario, Canada: Algonquin College, Humber College, University of Toronto, University of Western, and York University. The institutions offer support under categories such as, “Counselling Services” (Algonquin College, 2008), or “Student Health Services” (University of Western, 2008). Of the five post-secondary schools searched, the University of Toronto (2008) appears to be the only institution that divides counselling services into more detailed sections: Health/Wellness centre, Psychiatric service, Crisis Response program, and Family Life. The programs consist of personal, one-on-one counselling, or seminar/group discussions, and appear to be easily accessible for students, as well as surrounding community members not in school. They are primarily designed to confidentially address issues that are affecting a student’s education, ranging from academic performance stress to career choice decisions. Other post-secondary institutions likely offer similar assistance programs as those described above, but unfortunately, they cannot all be explored at this time. A school-wide survey can be distributed (via email) to students that inquires about their specific needs and how the school can be of assistance. Through this survey, post-secondary institutions can develop support mechanisms that are unique to students with an ill parent attending their school.

AN EXPLORATION OF RESEARCH IMPLICATIONS

Only a small body of research (e.g., Reupert & Mayberry, 2007a; Somers, 2006; Vannatta et al., 2008) exclusively targets parental illness, its impacts on adolescent schooling, and the mechanisms available for support. Within this small body of research, several of the studies (e.g., Anderson & Hammen, 1993; Hirsch et al., 1985) are dated. Nonetheless, these dated resources are still important to acknowledge, as they represent the preliminary research undertaken that actually considers how parental illness affects surrounding individuals, including spouses, children, and adolescents. As with every area of study, gaps in the literature (such as dated resources) are often notable. In this section, I highlight the theoretical, methodological, and conceptual
limitations that I discovered while reviewing the literature, which are divided into subheadings according to themes (e.g., adolescents and schooling, multidisciplinary perspectives and approaches, and illness diversity). My intention here is not to criticize or find faults within the research, but rather to identify and suggest areas where greater attention would be advantageous for the future development of more detailed and diverse studies when exploring the impacts of parental illness on adolescent schooling.

ADOLESCENTS AND THEIR SCHOOLING

In the majority of the research, adolescents are rarely considered separately from children or young adults. For example, Anderson and Hammen (1993) assess the effects of parental illness on adolescents’ and children’s academic performance and school behaviour. There are a number of psychological and physiological differences between children, adolescents, and young adults (as briefly discussed earlier in this review), and therefore, I think that it would be beneficial to consider these groups separately. With respect to adolescent schooling, it is often incorporated among other aspects being explored. For example, in Anderson and Hammen’s (1993) study, although they assess adolescent school behaviour, it is in combination with social competence, and other internalizing and externalizing behaviours. I believe that it is necessary to consider other variables in addition to schooling, as demonstrated in Anderson and Hammen (1993). However, it appears that in doing so, an in-depth exploration into the impacts of parental illness on adolescent experiences in school is often limited. For example, studies rarely address the question of how a student’s engagement or achievement may be affected in response to the impacts of parental illness (i.e., are the student’s grades suffering? Is she or he having difficulty concentrating in class?). I think that other measures can be incorporated without limiting the analysis on school. More importantly, when integrating other measures (such as how the impacts of parental illness can cause social incompetence in adolescents), it is essential to draw connections between how these measures can impact school, or as an example, how social incompetence can impact a student’s level of engagement or achievement.
In addition, the type of adolescent schooling addressed is commonly at the late elementary and secondary level, and not at the post-secondary level. The period of adolescence is defined differently, depending on certain perspectives and contexts. According to Statistics Canada (2001), the typical age of high school graduation is 18, except for Quebec where it is one year less. As a result, it is possible that a student can begin post-secondary schooling between 17 and 18 years of age. When considering this data, I believe that students within their initial years of post-secondary education can still be considered adolescents. Along similar lines, there is a need for greater consideration of an adolescent’s school experiences prior to the diagnosis of, or exposure to parental illness. What were their engagement and achievement levels before they experienced the impacts of parental illness? Cerel, Fristad, Verducci, Weller, and Weller (2006) suggest that children and adolescents who experience academic and behaviour problems prior to parental illness are more likely to experience even greater problems after parental diagnosis and exposure. I suggest that researchers can access information on previous levels of engagement and achievement through an examination of cumulative education reports kept on file within schools or through in-depth interviews with past teachers.

**MULTIDISCIPLINARY APPROACHES AND PERSPECTIVES**

An important (and recurrent) methodological limitation is that many studies in this field (e.g., Anderson & Hammen, 1993; Farahanti & Marcotte, 2003; Hirsch et al. 1985; Lewis & Hammond, 1996) employ a more quantitative approach in the research process. According to Romer, Barkmann, Schulte-Markwort, Thomalla, and Riedesser (2002), only one quarter of the studies they reviewed are qualitative in nature. Romer et al. (2002) suggest that “qualitative studies should be used to explore a field and generate hypotheses. Their phenomenological approach may allow description of a complex picture, including the subjective experience of the individuals studied” (p. 25). A qualitative approach can address the complexities involved when investigating parental illness and the experiences of adolescents in school. In addition, the quantitative approaches commonly
used are limited in certain respects. For example, Romer et al. (2002) suggest that many quantitative-based studies (e.g., Anderson & Hammen, 1993; Hirsch et al., 1985; Schrag et al., 2004a) do not refer to any theoretical frameworks to situate and explain their results, but rather rely solely on the constructs of their research instruments (e.g., questionnaires). I think that it is important to position research within a particular framework, particularly when conducting a study with participants.

In my opinion, the assumption of quantitatively-based research approaches likely explains why a majority of studies analyze data through a psychological perspective, and thus, focus mainly on psychological variables. The impacts of parental illness on adolescents can be investigated through a number of vantage points, but multidisciplinary perspectives are rarely represented. Exploring this topic from different angles (such as through an educational lens) can render greater insights into dimensions (other than those psychologically-based) that come into play with parental illness and its impacts on adolescents. Socioeconomic variables and structural crises (e.g., racism and representations of illness) are examples of important dimensions to address, but are only included in some studies (e.g., Farahanti & Marcotte, 2003; Hirsch et al., 1985; Pederson & Revenson, 2005). For instance, parental illness can become a financial burden on the family, which can be due to a high amount of medical expenses, the loss of an additional income, or both. Poverty is often identified as most detrimental for student academic achievement (Seccombe, 2000). Therefore, I believe that such concerns are important to consider (especially in combination with the psychological components), as they can reflect differences in the way an adolescent with an ill parent experiences school.

**POSSIBLE POSITIVE OUTCOMES FOR ADOLESCENTS**

I noted a couple of concerns with the research (e.g., Aldridge & Becker, 2003; Hoke, 2001; Pederson & Revenson, 2005; Reupert & Mayberry, 2007b; Vannatta et al., 2008) that presents the impacts of parental illness on adolescents in a more favourable perspective. First, I suggest that not enough studies examine the possible positive outcomes for adolescents living with an ill par-
ent, as Pederson & Revenson (2005) also identify in their literature review. Armistead, Klein, and Forehand (1995) propose that the stresses and difficulties of parental illness for adolescents outweigh any positive outcomes that can result, which may be a reason why the “positive” studies are scarce. Second, other than studies by Hoke (2001) and Vannatta et al. (2008), the positive experiences for adolescents highlighted in this literature review are rarely specific to schooling. For example, Aldridge and Becker (2003) suggest that the impacts of parental illness on adolescents encourage the development of empathy for vulnerable people. In my opinion, it would have been beneficial to understand how this trait can help in bettering an adolescent’s schooling. I agree with Pederson and Revenson (2005) that more studies that address the positive outcomes for adolescents with an ill parent are urgently needed. However, I would argue that the “positive” studies should still address the lived experiences of adolescents, including their hardships, and must make clearer connections to school experiences in particular.

DEFINITION OF TERMS AND CONCEPTS

A conceptual limitation evident through the literature review is that much of the research consists of undefined and unsupported terms and concepts that are relevant to the topic—a limitation that Grabiak, Bender, and Puskar (2007) also note in their review of the impacts on adolescents with parental cancer. Terms, such as behaviour and achievement, are not clearly defined, nor are they supported by any pre-existing model or framework. For example, Schrag et al. (2004a) do not provide detail as to what “school behaviour” entails for them, and in Anderson and Hammen’s (1993) study, “medically ill” is not thoroughly explained. Another conceptual limitation is the lack of explicit references to engagement. Fredricks et al. (2004) stress the importance of engagement when addressing any issue concerning students and school, but this concept is generally absent in the literature concerning the impacts of parental illness on adolescent school experiences. In my opinion, such conceptual limitations can prevent a better understanding of exactly how schooling is impacted.
DIVERSITY OF ILLNESSES

The incorporation of a diversity of illnesses is also limited. The literature appears to focus more on the impacts of parental mental illnesses on adolescents, and with respect to physical illnesses, there are only a handful of diseases that are commonly investigated (Armistead et al., 1995). Mental illnesses may be less understood, more stigmatized, and not as supported/funded through the healthcare system when compared to physical illnesses. As a result, I think it is possible that parental mental illness is perceived as more of a concern for adolescents than parental physical illness, which can be the reason why the former is focused on more within the research. Furthermore, a reason why only a handful of physical illnesses are included may stem from the way certain physical illnesses are perceived through a scientific lens. For example, medical studies may identify cancer or multiple sclerosis as having a high number of negative impacts. As a result, parents with cancer and multiple sclerosis become popular subjects when investigating the impacts of parental illness on adolescent schooling. Grabiak et al. (2007) argue that studies in this area should be more versatile and diverse. Hirsch et al. (1985) suggest that past studies (e.g., Cowie, 1961; Worland & Hesselbrock, 1980) demonstrated a low number of differences between the impacts on adolescents who have a mentally ill parent and those with a physically ill parent, which makes the incorporation of both feasible. The inclusion of multiple illnesses allows for making connections and highlighting similarities between the severity of illnesses, their impacts on individuals, and common coping methods (Pederson & Revenson, 2005).

SUPPORT STRATEGIES: IMPLEMENTATION AND ACCESSIBILITY

In looking specifically at the literature on support resources, few studies (e.g., Nakou, 2004; Reupert & Mayberry, 2007a) evaluate the implementation and effectiveness of school-based strategies that help students cope with the impacts of parental illness. For the most part, studies (e.g., Anderson & Hammen, 1993; Lester et al., 2003; Schrag et al., 2004a) simply add a small section in the conclusion that addresses a few strategies of assistance. Diareme et al. (2007) suggest that parental illness and its impacts on adolescents have only been extensively addressed
in two intervention studies. It is possible that studies addressing school-based support strategies are lacking due to the limited number of studies that exclusively target parental illness and its impacts on adolescent schooling. In other words, I believe that if parental illness is not identified as a factor that can impact an adolescent’s engagement and achievement levels, then research on the implementation of support strategies will be scarce. Through her exploration of how educators help students with a mentally ill parent, Nakou (2004) suggests that teachers are often unable to identify the students in their classroom with an ill parent. Therefore, without identification, the development of support strategies may not occur.

Another shortcoming is that the majority of support strategies outlined are not specific to schooling, as identified in an earlier discussion on the possible positive outcomes for adolescents. Assistance through external means (such as healthcare agencies) is definitely beneficial. However, I think that greater information is necessary in order to understand how access to external supports might actually improve an adolescent’s experiences in school. For example, private therapy sessions outside of the school context can help adolescents with an ill parent gain greater self-esteem (i.e., a favourable impression of oneself that may have suffered in response to the impacts of parental illness). It is essential to highlight how enhanced self-esteem can help improve student engagement and achievement.

Finally, there is also a need for studies to consider the social or structural issues that impede on the development and accessibility of support. Pederson and Revenson (2005) argue that although treatment and support services can be available, adolescents and their families may not have access to these resources. Sambamoorthi and McAlpine (2003) suggest that racial or ethnic background, education, income, and health insurance are factors that sometimes limit the type and extent of accessible care services; services that may prevent the onset of illnesses, and allow for early intervention for the individual who is ill and their family members. In some cases, support for adolescents with an ill parent within schools is unavailable unless these types of barriers are overcome.
FUTURE DIRECTIONS

The variety of impacts in response to parental illness (as suggested in the literature) demonstrates that as with many life-altering circumstances, individuals are affected differently and can be supported in a number of ways. An adolescent’s reactions to the impacts of parental illness are not always foreseeable. Despite the limitations notable in the research and outlined in this review, these studies have undoubtedly contributed valuable insights in the area of parental health and adolescent schooling. The development of support strategies (although limited in number) has led to positive outcomes for ill parents and their children’s schooling. In sum, the findings and discussions that appear within these studies have likely increased awareness for health and educational practitioners, and consequently have shaped, influenced, and modified their respective practices.

As mentioned earlier, the objective of this literature review was to guide future studies in research directions that are underexplored, or have not yet been examined at all. It would be beneficial for future research in this area to develop longitudinal studies. I suggest that researchers should study individuals as they experience the impacts of parental illness throughout adolescence. These investigations could generate a better understanding of the different and shifting ways adolescents experience the impacts of parental illness on schooling over a period of time. A better understanding of the impacts of parental illness on adolescent schooling can also be established by investigating other groups involved, such as teachers, school administrators, school board/government officials, social workers, adolescents of healthy parents, and ill parents (just to name a few). These groups can understand and interpret the impacts of parental illness on a student’s schooling experiences in different ways; ways that may be beyond or outside of the scope for the adolescent with an ill parent. Researchers should pay attention to the factors or social constructs (e.g., socioeconomic status, race, gender, and age) that can benefit or complicate the impacts of parental illness for adolescents. This can provide greater insight into how and why the impacts of parental illness on an adolescent are experienced differently, which can lead to the development of more specific support strategies.
In addition, I think it would be interesting to explore the impacts of parental illness on adolescents when both parents are ill. Forthcoming studies could also examine how the impacts of parental illness on adolescents can differ when a parent is ill and surviving, compared to a parent who is terminally ill, or who has already passed. Another valuable consideration in this area of research would be to compare the impacts of parental illness on adolescents who live/reside with their parents versus those who do not. Assuming a variety of research directions (such as those described above) and taking into consideration the limitations that are currently present (such as the methodological or conceptual shortcomings outlined in this review) would certainly lead to both theoretical/scholarly and practical benefits. It is notable that greater knowledge can be generated towards this topic of interest, which reflects the importance and necessity of integrating diverse and multiple measures when considering parental illness as a factor that impacts adolescent schooling. This literature review represents the foundation through which greater knowledge and research can develop.

REFERENCES


Romer, G., Barkmann, C., Schulte-Markwort, M., Thomalla, G.,


University of Newcastle upon Tyne (1997-2007). Keyword search: Department of medical oncology, the cancer WEB project. Retrieved from http://www.ncl.ac.uk/


