SECONDARY TEACHERS' ASSESSMENT AND GRADING PRACTICES IN INCLUSIVE CLASSROOMS

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ABSTRACT

The assessment reform movement has focused on classroom assessment and grading practices as a potential means to improving teaching and learning. Many researchers agree that the best way to enhance learning for a diverse range of students is through appropriate, reliable, and valid classroom assessment and grading practices. This is of particular importance in Saskatchewan because the inclusive philosophy has been mandated for all schools. Classroom teachers are responsible for the instruction, assessment, and grading of students with mild disabilities, learning, emotional, and behavioral challenges, and other needs that require specific attention.

This study examined secondary classroom teachers' assessment and grading practices in one urban school division. A survey instrument adapted from the work of Duncan and Noonan (2007) and McMillan (2001) asked current secondary teachers, within inclusive classrooms, to indicate their current assessment and grading practices. Evidence from the survey demonstrated that teachers in this division have diverse assessment and grading practices and that they have begun to explore the potential for assessment to assist all students in their learning. This study has provided data to move forward with some professional development opportunities for teachers and further research in assessment and grading with particular focus on students with special needs in inclusive classrooms.

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Go confidently in the direction of your dreams. Live the life you've imagined.

-Thoreau

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Chapter One

Introduction to the Problem

The purpose of this study was to examine the classroom assessment and grading practices employed by secondary general education teachers in inclusive settings. Past research on teachers' assessment practices occurred mostly in the 1990's. Small samples were typically used and the focus was on the reporting of teacher beliefs, and not actual practices (McMillan, 2001). In addition, according to McMillan (2001) there was no accommodation for the ability levels of the students that were considered. Unfortunately, none of the past research specifically studied assessment of students with special needs in inclusive settings. This was of particular concern because the inclusive philosophy has persisted and there is limited current research on the relationship between classroom assessment and grading practices, in inclusive settings, and students with special needs.

Because teachers have faced more and more diversity within regular classrooms, they have been constantly challenged with the task of attempting to discover new and innovative ways to meet the needs of students. Fortunately, the assessment reform movement brought classroom assessment and grading practices to the forefront as a possible route to improving teaching and learning (Hargreaves et al., 2002; James & Pedder, 2006; Lukin et al., 2004; Stiggins, 2004, 2005; Stiggins et al.1986; McMillan, 2001, 2007; Wiggins, 1990a, 1990b, 1993, 2003). More and more researchers have promoted meaningful and relevant classroom assessment and grading practices as a means to achieving students' success and assisting teachers in facilitating learning for their students.

Assessment reform theorists have maintained that, by implementing sound, consistent and reliable assessment practices, teachers can improve achievement levels for students. Unfortunately, there has been a disconnection between the practices dictated by measurement specialists and the day-to-day classroom assessment and grading practices of regular education teachers. According to recent research, teachers' classroom assessment and grading practices have sometimes lacked meaning because they are not always based on information that is indicative of achievement (Allen, 2005; Jordan, 2005; McMillan, 2001, 2007; O'Connor, 2007; Stiggins, 1989). Specifically, many teachers' classroom assessment and grading practices tend to be unreliable, inconsistent, and often based on non-achievement factors (Allen, 2005; Brookhart, 1993, 1994; McMillan, 2007; Stiggins, 1989, Tomlinson, 2005). This dilemma has been coupled with a lack of training and experience in addressing the issues associated with instructing students with special needs within regular academic settings, as proposed by the inclusive schools philosophy (Black and Wiliam, 1998; Hargreaves et al., 2002; Hodges et al., 2005; Kerzner- Lipsky, 2003). Limited research has considered the effects of other classroom conditions, but very little research has been done on assessment and grading practices pertaining to students with special needs. If assessment reform is the key to improving teaching and learning, the factors teachers considered in administering grades and the types of assessments they used was an essential area of consideration. This study examined what practices teachers were currently using in their classroom assessment and grading practices in general education classrooms and the degree to which they utilized sound assessment principles in addressing the needs of a diverse student population inclusive of special needs students.

Purpose and Research Questions

The purpose of this study was to investigate the classroom assessment and grading practices of general education teachers within inclusive settings. Several research questions, pertaining to classroom assessment and grading practices, inclusive environments, and support for general classroom teachers regarding classroom assessment and grading practices were considered:

1. What classroom assessment and grading practices do classroom teachers currently utilize at the secondary level within inclusive classrooms?
2. What cognitive level is most commonly assessed in current classroom assessment and grading practices of secondary teachers?
3. To what degree do teachers indicate that they lacked professional development in assessment and grading practices and in addressing the needs of a diverse student population?
4. Do the results of this study provide rationale for changes to assessment and grading practices within inclusive classrooms?

Theoretical Basis of the Study

This study considered the impact of the legislation of inclusive education settings and the emerging focus on classroom assessment and grading practices of general educators. The goal of this study was to examine these two components in an attempt to explore the current classroom assessment and grading practices of secondary classroom teachers within inclusive settings and the degree to which they met this challenge.

Saskatchewan Learning (2006) advocates for an educational approach that includes all students in regular classrooms with appropriate support for teachers, students, and parents. As a result, many teachers face a diverse range of students who they may or may not be prepared to teach. However, the inclusive philosophy persists because this type of setting offers students the opportunity to be exposed to the variety of individuals that coexist in our world.

Within inclusive classrooms, teachers constantly face the challenge of facilitating learning for all students. According to many researchers, who support the need for assessment reform, effective, relevant, and meaningful classroom assessment and grading practices are integral to a student's success in school (Davies, 2008; Hargreaves et al., 2002; James & Pedder, 2006; Lukin et al., O'Connor, 2007; 2004; Stiggins, 2004, 2005; Stiggins et al.1986; McMillan, 2001, 2007; Montgomery, 2001; Wiggins, 1990a, 1990b, 1993, 2003). Specifically, assessment reform is central to the concept of school reform because of the widespread belief that classroom assessment greatly influences teachers' instructional practices and fuels school reform into more effective teaching practices (Hargreaves et al., 2002; James & Pedder, 2006; Lukin et al., 2004; Stiggins, 2004, 2005; Stiggins et al.1986; McMillan, 2001, 2007; Montgomery, 2001; Wiggins, 1990a, 1990b, 1993, 2003).

The first step in determining whether or not classroom practices met the principles associated with improving teaching and learning was to ask teachers what practices they were currently utilizing.

Significance of the Study

This study provides data in considering the current classroom assessment and grading practices of classroom teachers within the inclusive setting. General classroom teachers are expected to meet the educational needs of all students within their classrooms. This poses many challenges, frustrations, and dilemmas. The importance of classroom assessment and grading techniques that are meaningful, appropriate, and useful is crucial in enhancing learning for all students. By gaining a better understanding of the current extent to which regular classroom educators utilized assessment principles that enhanced learning, this study provided opportunities for increased professional development resources, support for more collaborative educational practices, or future consideration of best practices to meet the needs of students.

Assumptions of this Study

The following assumptions were made in conducting this study:

1. All of the teachers who completed this study were general classroom teachers within an inclusive school setting.
2. The responses formed an accurate picture of classroom, school, and division practices throughout the school year in which the feedback was obtained.
3. Teachers responding provided accurate, thoughtful, and considerate responses to the survey items.

Delimitations of this Study

The following delimitations restricted the scope of this study:

1. No considerations for differences between teachers and students, with respect to gender, were considered.
2. Differences between community schools and regular schools were not considered.
3. Cultural differences between teachers and students were not considered.
4. Differences between students with a variety of special needs were not considered.
5. Survey feedback was limited to general classroom educators.

Limitations of this Study

The following limitations were considered in conducting this study:

1. Teacher responses were limited to six options in responding to each item on the survey instrument.
2. Responses were limited to general classroom educators within one urban setting.
3. Ten urban secondary schools were surveyed, representing a total of approximately 400 regular teaching staff.

Definitions

The terms used in this study are defined here:

Assessment is the process of collecting information on student achievement and performance. The assessment process reveals what a student understands, knows, and can do.

Assessment Reform is the educational movement away from large-scale assessments (standardized tests) towards more emphasis on classroom assessment.

Designated Disability is a term describing a disability according to criteria and medical diagnosis set forth by Saskatchewan Learning. Students with a designated disability are eligible for special funding and additional supports, when required.

Evaluation is a judgment regarding the quality, value or worth of a response, product, or performance, based on established criteria and curriculum standards.

Feedback is a verbal or written indication of the correctness of an action, answer, or other response.

Formative Assessment is a collaborative process between teacher and student. Teachers align learning with targeted outcomes, identify learning needs of students, adapt materials and resources, and provide meaningful feedback to students. It is used to refer to any assessment activity, used during instruction, which is used to inform future instructional activities.

Inclusion means that students with special needs are part of the regular classroom and are educated with their age-appropriate peers by general classroom teachers.

Integration means that students with special needs participate in age-appropriate activities with regular classroom students during non-academic subjects.

Least Restrictive Environment (LRE) is based on the belief that all students are educable within the regular classroom setting unless such education would be detrimental to the success of other students or would take a disproportionate amount of the teacher's time.

Mainstreaming involves integrating special needs students on a case-by-case basis as they improve in their ability to participate in a regular classroom setting.

Metacognition is the self-appraisal and self-regulation processes used in thinking, reasoning, learning, and problem-solving.

Regular Classroom Teacher/ Educator teaching within a regular classroom setting are responsible for the education of the needs of all students within their classes.

Reliability refers to the consistency, stability, and dependability of scores.

Special Education Teachers receive specialized training in working with students who have special needs. These teachers operate within resource rooms or as a support to students with special needs in inclusive classrooms.

Students With Special Needs include those students with learning, multiple, or physical disabilities, speech, and language problems, behavior disorders, mild and moderate forms of designated disabilities, and giftedness.

Summative Assessment occurs at the end of an instructional unit to document student achievement.

Validity refers to the appropriateness and legitimacy of the inferences, claims, and uses made from test scores.

Summary

Mandating a philosophy within any organization may result in unanticipated obstacles and barriers. The inclusive schools philosophy is one that presents many challenges for current Saskatchewan teachers. Teachers are expected to demonstrate that all of their students, within inclusive classrooms, are learning. If appropriate classroom practices are utilized to address the needs of diverse student populations and to effectively assess achievement, then our goal as educators has been attained. However, if issues arise, and are not addressed, teachers and students fall short of this goal.

The following chapter outlines some of the concerns for classroom teachers and their students, with specific regard to the challenges in inclusive classroom settings, and the barriers to implementing effective assessment and grading practices.

Chapter Two

Introduction to the Literature Review

This chapter discusses the relevant literature pertaining to the development of the inclusive schools philosophy and teachers' assessment and grading practices. Specifically, it provides a brief overview of the history of inclusive education, the rationale and philosophy underlying inclusive educational settings, some of the implications of implementing inclusive practices in schools, and the potential barriers to inclusive environments for teachers and students. Also provided is a comprehensive definition of the inclusive classroom and inclusion within the school, as opposed to mainstreaming and integration. An overview of the literature related to the history, definition, and purposes of assessment in this chapter provides a focus on the impact of assessment and grading practices for students with special needs within the general classroom highlighting any barriers to effectiveness. The literature pertaining to classroom assessment and grading practices and inclusive education appearing throughout this thesis was retrieved from relevant peer reviewed journals, special education textbooks, and government publications online and in print.

History of Inclusive Education

Historically, in Canada, individuals with disabilities and minorities were not given the opportunity to benefit from public education. They were separated from the general school population and placed in institutions, which did little more than house them and keep them away from the mainstream population. Sometimes they faced abuse and neglect (Day, 1985; Villa & Thousand, 1995). Eventually, limited education was provided for those who did not fit with mainstream society because of their differences. However, those with conditions that were readily

recognized, such as blindness, were still segregated from the general population, along with racial minorities and the poor (Kerzner-Lipsky & Gartner, 1994; Pierangelo & Guiliani, 2006; Special Education Review Committee (SERC), 2000; Villa & Thousand, 1995). This could have been a reflection of religious beliefs as Christianity spread throughout North America. For example, the religious notion was that the disadvantaged should be protected and pitied by those who were more fortunate. As a result, religious orders often cared for the disabled and provided them with a limited education (Day, 1985). Even when compulsory attendance laws were passed in the early 1900s, those with disabilities were excluded from public education (Villa & Thousand, 1995).

Separate classrooms or institutions continued to be the preferred means of educating those with disabilities, who were viewed as being 'educable', throughout the 1950s and 1960s (Day, 1985; Kerzner-Lipsky & Gartner, 1994; Pierangelo & Giuliani, 2006; SERC, 2000; Villa & Thousand, 1995). Over time, the situation improved for some disabled students, but the overall lack of social and educational change was exacerbated by the public perception that those with disabilities also possessed criminal tendencies that stemmed from their respective genetic makeup (Villa & Thousand, 1995). According to Stainback and Stainback (1992), this systemic segregation communicated the message that "either we do not want to accept everyone or that some people are not worth the effort to make the accommodations necessary to keep them included" (Stainback & Stainback, 1992, p. 29). The reluctance to include the disabled and minorities within regular education settings continued to be the norm throughout the 1950s and the 1960s.

After the 1960s, a new perspective composed of respect for human dignity and equality began to evolve. This also fueled a movement away from segregation based on minority groups. As more minority students were accepted into the mainstream classrooms, consideration for other segregated groups also became a major concern (Deno, 1994; SERC, 2000; Villa & Thousand,

1995). Parents began to lobby the government for their disabled children to be educated in public schools. More and more individuals began to realize that institutions and segregation provided restrictive environments that posed further negative consequences for society (Baker, Wang, & Walberg, 1995; Pierangelo & Giuliani, 2006; Villa & Thousand, 1995). For example, society began to recognize that many diagnosed and undiagnosed behavior and learning disabilities resulted in higher dropout rates. This issue could be mitigated by accommodating the needs of students who had special learning demands (SERC, 2000). According to Deno (1994), society was challenged to "deal with children with disabilities as individuals, human beings like the rest of us, except burdened by physical or mental differences that made it hard for them to fit in to the social systems we developed to suit the rest of us" (p. 378). Parents were no longer accepting of the criteria that were used to segregate their children, for example, the use of IQ scores. They began to demand that their disabled children be educated as other "normal" peers were being educated (Deno, 1994; SERC, 2000).

The 1970s and 1980s focused on the belief that deficits could be remedied in special programs and students could be brought back into regular classrooms when they were "fixed" (Kerzner-Lipsky, 2005). Students were placed in 'special classes' within regular schools and educated separately (Day, 1985; Fuchs & Fuchs, 1994; Lawson, Waite, & Robertson, 2005; Pierangelo & Giuliani, 2006). This concept is known as providing the "Least Restrictive Environment" (LRE) and it consists of a range of programs and service delivery from segregated environments to regular classroom settings. Students are placed in the most appropriate location outside of the regular classroom and then integrated, when possible (Day, 1985; Deno, 1994; Etscheldt, 2006; SERC, 2000; Sindelar, Shearer, Yendel-Hoppey, & Liebert, 2006). Deno (1994)

termed this system the “Cascade Model” because of the continuum of services, both in and outside of the regular classroom, that were available for students with disabilities.

In the 1980s, the separate system of specialized education, for those with special needs, increased as funding grew and more and more students were identified as needing assistance with learning tasks. Unfortunately, this special education system resulted in a majority of disabled students failing to master their goals or to reach grade equivalency. Higher dropout rates and unemployment, low graduation rates, and failure of special needs students to integrate into community resulted (Day, 1985; Kerzner-Lipsky, 2005; Lupart, 1999; Pierangelo & Giuliani, 2006). However, the 1980s have also been called the decade of the “Rights of the Disabled Person” because of the changes that resulted out of the poor record of accomplishment of segregated educational systems and special classes (SERC, 2000). Some of these changes included the Regular Education Initiative (REI) by Will (1986) and regular use of the terms “mainstreaming”, “collaboration”, and “inclusion” (SERC, 2000).

The key term for educating those students with special needs during the 1990s was that of ‘inclusion’ as individual human rights became the primary focus. Full access to education within the regular academic setting became the goal for education (Bruns & Mogharreban, 2007; Canadian Association for Community Living (CACL), 2004; Downing, 2005; Fewster, 2006; Fuchs & Fuchs, 1994; Lupart, 1999; McMillan, 2007; Moore, Gilbreath, & Maiuri, 1998; Kavale & Mostert, 2003; Murphy, 1996; Pierangelo, 2006; Reganick, 1995; SERC, 2000; Sindelar et al., 2006; Soodak, 2003; Stainback & Stainback, 1992). Despite the challenges and controversy surrounding the inclusive movement, the philosophy persists. Maintaining the inclusive philosophy remains a positive means to ensure the success of all students. A rationale and further explanation for the inclusive education movement will continue the discussion of inclusive education.

Inclusion- Philosophy and Rationale

The process of educating all students, in regular education classrooms, with their age-appropriate peers, regardless of their individual differences, is commonly called "inclusion" (Bruns & Mogharreban, 2007; CACL, 2004; Downing, 2005; Fewster, 2006; Fuchs & Fuchs, 1994; Lindsay, 2007; Lupart, 1999; McMillan, 2007; Moore et al., 1998; Kavale & Muster, 2003; Lawson et al., 2005; Murphy, 1996; Pierangelo, 2006; Reganick, 1995; Sindelar et al., 2006; Soodak, 2003; Stainback & Stainback, 1992). Villa and Thousand (1995) maintain that the term *include* means to be a part of something. The "meaning of the terms *inclusion* and *exclusion* helps us to understand inclusive education" (Villa & Thousand, 1995, p. 7). In inclusive educational systems, all students are included in the regular learning environment.

Important legislation has contributed to the philosophy of inclusion. In 1975, the United States government passed the Education for All Handicapped Children Act, Public Law 94-142 to ensure that all school-aged children receive education within the LRE (Etscheldt, 2006; Fuchs & Fuchs, 2994; McMillan, 2007; Murphy, 1996; Sindelar et al., 2006). In Canada,

> The "least restrictive environment" means placing a special needs child in an educational environment (or environments) identified as being most suitable to the child's physical, social and educational needs. The overriding principle guiding this type of placement is that if a child is removed from the mainstream, the removal should be for only as long as it is in the child's best interest. The child should be returned to the mainstream at the earliest possible time (Learning Disabilities Association of Canada, 2005).

Whenever possible, students with special needs are educated with those who have regular education needs. The result of this government mandate is that teachers become familiar with the

identification of students with special needs, their instructional requirements, and assessment opportunities within the regular classroom setting that accurately reflect their ability (Fuchs & Fuchs, 1994; McMillan, 2007; Moore, Gilbreath, & Maiuri, 1998; Murphy, 1996, Sindelar et al., 2006).

The Canadian Charter of Rights and Freedoms (1985) states that "education is a right, not a privilege". No child should face discrimination because of race, national or ethnic origin, color, religion, sex, age, or mental or physical disability (Canadian Charter of Rights and Freedoms, sec.15, 1985).

In 1994, the United Nations Educational, Scientific and Cultural Organization (UNESCO) held a conference in Salamanca, Spain to develop international policy regarding special education. In establishing key principles for education for students with disabilities, the Salamanca Statement (1994), emphasized the importance of education for all other diverse students as well. According to the Salamanca Statement (1994):

> all schools should accommodate all children regardless of their physical, intellectual, social, emotional, linguistic or other conditions. This should include disabled and gifted children, street and working children, children from remote or nomadic populations, children from linguistic, ethnic or cultural minorities and children from other disadvantaged or marginalized areas or groups (UNESCO, 2007, p. 6).

The Salamanca Statement (1994) also recognized the difficulty of including all students in regular classrooms, but a difficulty that needs to be solved in the successful education of students with special needs.

Schools have to find ways of successfully educating all children, including those who

> have serious disadvantages and disabilities. There is an emerging consensus that children and youth with special educational needs should be included in the educational arrangements made for the majority of children. This has led to the concept of the inclusive school. The challenge confronting the inclusive school is that of developing a child-centered pedagogy capable of successfully educating all children, including those who have serious disadvantages and disabilities. The merit of such schools is not only that they are capable of providing quality education to all children; their establishment is a crucial step in helping to change discriminatory attitudes, in creating welcoming communities and in developing an inclusive society. A change in social perspective is imperative (UNESCO, 1994, pp. 6-7).

By applying the principles from the Salamanca Statement (1994), the goal of inclusive education is to meet the needs of all students within the context of a regular academic setting, or within the LRE (Day, 1985; Deno, 1994; Etscheldt, 2006; Fuchs & Fuchs, 1994; Lindsay, 2003; Ruder, 2002; SERC, 2000; Sindelar, Shearer, Yendel-Hoppey, & Liebert, 2006). This statement claims that social interaction can be maintained between students with special needs and their age-appropriate peers and that all individuals receive an "appropriate" education, which could override the previous goal of achieving social interaction with peers (CACL, 2004; Fuchs & Fuchs, 1994; Lindsay, 2003).

Education within the LRE might mean that, when necessary, students with special needs are removed from the general education setting to engage in specific programming that is integral to their success at school (CACAL, 2004; Fuchs & Fuchs, 1994; Lindsay, 2003; SERC, 2000; Saskatchewan Education, 2001). All students are educated together unless "he or she is a threat to

others, or is taking up a disproportionate amount of teacher's time" (Lindsay, 2003, p.5). Whenever possible, all students should be educated with their peers by general education teachers.

Inclusion pre-supposes the principle that all students can learn in an appropriate environment, with the right supports, and if provided with meaningful learning opportunities (Bruns & Mogharreban, 2007; CACL, 2004; Downing, 2005; Fewster, 2006; Fuchs & Fuchs, 1995; Hendrick-Keefe, 1996; Kerzner-Lipsky, 2003; Lindsay, 2003; Lupart, 1999; Moore et al., 1998; Ruder, 2002; Saskatchewan Association for Community Living (SACL), 2003; Soodak, 2003; Stainback & Stainback, 1992; Villa & Thousand, 1995). Sometimes an inclusive classroom may require "specialized instruction and supplementary aids and services provided to students with disabilities who need specialized instruction" (Moore et al., 1998, pp. 4-5). Additional instructors certified in special education services assist teachers with students who have special needs (CACL, 2004; Downing, 2005; Fuchs & Fuchs, 1998; Jordan, 2007; Kerzner-Lipsky, 2003; Murphy, 1996; Pierangelo, 2006; SACL, 2003; Soodak, 2003; Villa & Thousand, 1995). The practices of inclusion demand that professionals work together in a collaborative manner.

According to the CACL (2004), Fewster (2006), Kerzner-Lipsky (2003), Lupart (1999), SACL (2003), Saskatchewan Education (2001), the SACL (2003), and Soodak (2003), teachers can achieve success with a diverse population of students through collaboration and teamwork. Collaboration is required by personnel at the classroom, school, and system levels in order to meet the needs of diverse student populations. Teachers work closely with educators who have specific training in special education, parents and guardians, educational assistants, psychologists, speech and language pathologists, and any other professionals who are required in assisting students who have special needs. Saskatchewan Education (2001) defines the importance of teamwork as follows:

> An educational team exists when two or more teachers, family or support personnel organize themselves to regularly plan, instruct and evaluate programs for a student or a group of students over an extended period of time. As a member of an educational team, one has to unconditionally accept the responsibility of a constructive team member. It is also necessary to be aware of, and accept the value of, positive professional interdependence. Although not always as easy task, a commitment to conscientious team building must be undertaken (p. 47).

The element of teamwork is integral to the success of students with special needs. In order for them to reach their full potential, a diverse range of professionals work together and combine their expertise to address students' needs.

Professionals meeting the students' needs create the inclusive environment by their working collaboratively to meet the demands of the pupil through effective consultation with support professionals, teachers, parents, and students with special needs (CACL, 2004; Fewster, 2006; Fuchs & Fuchs, 1994; Hendrick-Keefe, 1996; Hodkinson, 2005; Kerzner-Lipsky, 2003; Lindsay, 2007; Lupart, 1999; SACL (2003); Soodak, 2003; Stainback & Stainback, 1992). Some researchers maintain that inclusion means and requires systemic change so that barriers and norms separating regular and special educators break down and professionals work together in a supportive fashion (CACL, 2004; Hodkinson, 2005; Kerzner-Lipsky, 2003; Lupart, 1999; Saskatchewan Education, 2001; Rossman & Salzman, 1995; SACL (2003); Soodak, 2003) Learning environments need to foster a sense of community for everyone through a collective effort by all stakeholders involved at every level of education.

Inclusive environments imply that a diverse range of students are part of the differences, variations and nuances of the regular classroom setting (Bruns & Mogharreban, 2007; CACL, 2004;

Downing, 2005; Fuchs & Fuchs, 1994; Hendrick-Keefe, 1996; Hodkinson, 2005; Jordan, 2007; Kerzner-Lipsky, 2003; Kerzner-Lipsky & Gartner, 1999; Moore et al., 1998; Soodak, 2003; Stainback & Stainback, 1992). All students, including students with special needs, are part of the regular classroom and part of the diversity of the general education classroom (Bruns & Mogharreban, 2007; CACL, 2004; Downing, 2005; Fuchs & Fuchs, 1994; Hendrick-Keefe, 1996; Hodkinson, 2005; Jordan, 2007; Kerzner-Lipsky, 2003; Kerzner-Lipsky & Gartner, 1999; SACL (2003); Soodak, 2003). Apparently, students can benefit from the social skills development that occurs as a result of being a part of the regular classroom setting (Bruns & Mogharreban, 2007; CACL, 2004; Downing, 2005; Fuchs & Fuchs, 1994; Hendrick-Keefe, 1996; Kavale & Muster, 2003; Kerzner-Lipsky & Gartner, 1999; Reganick, 1995; SACL (2003); Soodak, 2003; Stainback & Stainback, 1992). "Friendship is an integral part of a child's well being. Schools are the place where friendships begin and sometimes last a lifetime" (Reganick, 1995, p. 6). Stainback and Stainback (1992) propose that "inclusion of all students teaches the student and his or her peers that all persons are equally valued members of this society" (Stainback & Stainback, 1992, p. 29).

One requirement for inclusive schools is that all staff views its moral, legal, and professional responsibility to work collaboratively with other professionals in meeting the needs of students (CACL, 2004; Downing, 2005; Fewster, 2006; Jordan, 2007; Saskatchewan Education, 2001; Soodak, 2003). Inclusive environments are about more than just setting and delivery of services. They involve a philosophy of education in which professionals have a moral responsibility to educate every student, remove barriers that prevent full participation, and ensure that students reach their full potential (CACL, 2004; Fewster, 2006; Fuchs & Fuchs, 1994; Hendrick-Keefe, 1996; Hodkinson, 2005; Jordan, 2007; Kerzner-Lipsky, 2003; Lupart, 1999; Moore et al., 1998; Soodak, 2003). Inclusive education "is an attitude- a value and belief system- not an action or set of actions.

Once adopted by a school or school district, it should drive all decisions and actions by those who have adopted it" (Villa & Thousand, 1995, p. 6). Kerzner-Lipsky (2003) advocates for a "whole-school approach [that] requires all staff in the school to share responsibility for meeting the needs of both general and special education students" (Kerzner-Lipsky, 2003, p. 36). There needs to be a "collective commitment" shared by staff in order to provide services to students (Jordan, 2007). In effect, a culture of inclusion exists in the classroom as well as at the school level.

In inclusive schools, negative behaviors are addressed with school-wide policies. Programs that advocate for positive behaviors allow staff to focus on positive outcomes. "The common elements of positive behavior support programs incorporate unified attitudes that recognize effective instruction as a tool to improve behavior" (Kerzner-Lipsky, 2003, p. 36). All staff applies similar principles in discipline and has the same expectations regarding acceptable behaviors (Kerzner-Lipsky, 2003; Soodak, 2003). Thus, the climate of a school with an inclusive approach focuses on positive and consistent practices that transcend the classroom behavior, to encompass behaviors school-wide and society-wide. The climate also reflects the ideology that students are not just physically present, but that they are participating fully and are subject to the same terms and conditions as regular students (Hodkinson, 2005; Soodak, 2003).

Inclusion is not the same as mainstreaming and integration. Although some practitioners, teachers, and theorists use the terms interchangeably, there are differences in definition and in practice. For the purpose of this thesis, the three terms are differentiated.

Mainstreaming and Integration

Mainstreaming involves integrating special needs students into regular classrooms on a case-by-case basis. Sometimes this can mean part-time or full-time in a regular classroom, depending

upon the needs of the student (Hendrick-Keefe, 1996; Moore et al., 1998; Murphy, 1996; Villa & Thousand, 1995). In a mainstream environment, students spend increased time in regular classrooms as they show more improvement and progress. It does not imply that every student is provided the opportunity to participate in a regular academic setting with age-appropriate peers, as is the case in an inclusive environment. Appropriate classrooms for mainstreamed students often exist apart from their neighborhood school and involve transporting the students to an alternate environment (Murphy, 1996; Villa & Thousand, 1995). "Mainstreaming brought students with special education needs into general classrooms only when they didn't need specially designed instruction- when they could keep up with the 'mainstream'" (Moore et al., 1998, p. 5). Mainstreaming requires very little special accommodations by teachers, at the classroom level, and does not imply that all students are included in the regular classroom.

Integration means that students with special needs participate in age-appropriate activities with regular classroom students during non-academic subjects (Fewster, 2006; Moore et el., 1998; Murphy, 1996; Villa & Thousand, 1995). Integration involves a significant amount of time in a learning environment away from the regular classroom setting within neighborhood schools (Fewster, 2006; Murphy, 1996). Integration implies that the student adapts to the school environment, rather than the school environment meeting the individual demands of the student (Lindsay, 2007). Integrated students were never part of the general education classes, as opposed to those in an inclusive system (Moore et al, 1998). However, integration can be used as a strategy to facilitate mainstreaming and eventual inclusion (Fewster, 2006).

The most glaring difference among mainstreaming, integration and inclusion is the process of teacher adaptation. Mainstreaming and integration means that specially educated individuals will assume the primary responsibility for educating students with special needs. In a system of

inclusion, regular classroom teachers develop skills that allow them to meet the range of needs of a diverse student population. Consequently, inclusive classrooms pose many more challenges, difficulties, and opportunities for regular classroom teachers.

The challenge for the teacher to consider the impact of every possible combination of factors to each student's uniqueness is a daunting one. However, an overview of the categories of diversity for students with special needs will help the teacher to gain a broader understanding.

Students with Special Needs

Students with special needs include those students with learning, multiple, or physical disabilities, speech and language problems, behavior disorders, mild and moderate forms of designated disabilities, and giftedness. These students require supports, adaptations, and special considerations in regular classroom activities. Special needs categories are divided into five main areas with several subcategories in each (Day, 1985; Jordan, 2007). These categories include communication disorders, intellectual exceptionalities, behavioral disorders, physical disabilities, and multiple exceptionalities and disorders. Individuals may differ in nature and degree of difficulty in each area. To describe every condition, disability, and diversity in a thorough and detailed manner is yet another challenge. A brief overview of the definitions, concerns, and issues pertaining to each category follows.

Several disorders and syndromes, which may or may not have biological bases or causes, are in the category of *communication disorders* (Jordan, 2007). For example, Pervasive Developmental Disorder (PDD) is a category of neurological disorders with "severe and pervasive impairment in several areas of development including social interaction and communications skills. The five PDD disorders are Autistic Disorder, Asperger's Disorder, Childhood Disintegrative Disorder (CDD),

Rhett's Disorder, and PDD-Not Otherwise Specified (PDD-NOS). Each of these disorders has specific diagnostic criteria outlined in the American Psychiatric Association (APA) in *Diagnostic & Statistical Manual of Mental Disorders* (DSM-IV-TR) (Jordan, 2007).

Autism Spectrum Disorders (ASD) are neurologically based and typically appear in the first three years of life (Jordan, 2007). Autism is a spectrum disorder because the symptoms can occur in any combination and with varying frequency. Children and adults with autism typically have difficulties in verbal and non-verbal communication, social interactions, and leisure or play activities. Autism spectrum disorders are of particular concern because they are among the fastest growing disorders in North America (Jordan, 2007).

Included in the category of communication disorders are disabilities associated with deafness and speech and language impairments. Deaf and hard-of–hearing students suffer from an "impairment characterized by deficits in language and speech development because of a diminished or non-existent auditory response to sound" (Jordan, 2007, p. 64). The characteristics, time, and nature of hearing loss can affect symptoms, treatment, and needed adaptations. For example, the degree of hearing difficulty varies in severity and may exist in one or both ears. Prelingual hearing loss occurs in children who are born deaf or hard-of-hearing or if hearing occurred before language acquisition. Postlingual hearing loss occurs after language acquisition (Day, 1985; Jordan, 2007). Over two million Canadians suffer from hearing loss (Saskatchewan Deaf & Hard of Hearing Services Inc., 2007).

Verbal and written communications often evidence speech and language impairments, including reading comprehension. This includes comprehension and use of language difficulties (Jordan, 2007). Speech and language impairments may be associated with other neurological, psychological, physical, or sensory factors that affect the form, content, and functions of language in

regular communication (Day, 1985; Jordan, 2007). Individuals with a speech or language impairment suffer from difficulties in delayed language development, lack of fluency, impaired comprehension or expression of speech and written language, and voice and articulation development, such as slurring (Day, 1985, Jordan, 2007).

Learning disabilities also belong to the category of communication disabilities. In 2002, a new definition of "learning disability" was developed. According to the Learning Disabilities Association of Canada (LDAC) (2005):

> "Learning Disabilities" refer to a number of disorders which may affect the acquisition, organization, retention, understanding or use of verbal or nonverbal information. These disorders affect learning in individuals who otherwise demonstrate at least average abilities essential for thinking and/or reasoning. As such, learning disabilities are distinct from global intellectual deficiency
>
> Learning disabilities result from impairments in one or more processes related to perceiving, thinking, remembering or learning. These include, but are not limited to: language processing; phonological processing; visual spatial processing; processing speed; memory and attention; and executive functions (e.g. planning and decision-making) (LDAC, 2005).

Learning disabilities range in severity and may interfere with the acquisition and use of oral language, reading, written language, and math (Day, 1985; Jordan, 2007; LDAC, 2005; McMillan, 2007). Other difficulties with organization, social interaction and perception, and perspective taking may also be present (Day, 1985; Jordan, 2007; LDAC, 2005). Learning disabilities might be due to genetic or neurobiological factors that affect the brain's processes in learning and they may also exist in combination with other attention, behavior, or emotional

disorders, sensory impairment, and other medical diagnoses (Day, 1985; Jordan, 2007; LDAC, 2005). Between 6% and 15% of school-aged children in North America are thought to have a learning disability (Jordan, 2007; LDAC, 2005).

Most people with *intellectual exceptionalities* have unusually difficult challenges with four types of intellectual processes: abstraction, sequencing, understanding social contexts, and reading the emotional states of others (Jordan, 2007). People with intellectual disabilities have unique needs with regard to information processing and their disability may affect learning, memory, problem solving, planning, and other cognitive tasks (Day, 1985; Jordan, 2007). These individuals vary in their abilities and are divided into categories of mild, moderate, severe, and profound. The intellectual disability distinction is primarily made on the individual's ability to function within the classroom with curricular adaptation or other supportive services (Jordan, 2007). Intellectual disability may be acquired through an accident or disease or from birth, called a congenital disability (Jordan, 2007). Approximately 1- 2% of Canadians have an intellectual disability diagnosis. 90% of this population has a mild intellectual disability (LiveWorkPlay, 2007).

Gifted students display "an unusually advanced degree of general intellectual ability that requires differentiated learning experiences of depth and breadth beyond those normally provided in the regular school program to satisfy the level of intellectual potential indicated" (Jordan, 2007, p. 72). These students require program adaptations in the form of either enrichment or acceleration. Enriched students receive additional curriculum supplements that provide more in-depth study (Jordan, 2007). Accelerated students skip all or part of a grade level and advance to the next grade (Jordan, 2007).

Behavioral exceptionalities persist over time and are characterized by specific behavior

problems, to a marked degree and nature, which adversely affect academic performance (Jordan, 2007; Saskatchewan Health, 2005). These behavior problems may be accompanied by an inability to establish, maintain, or build interpersonal relationships, excessive fear and anxiety, a tendency to compulsive reactions, and an inability to learn that is not a result of intellectual, sensory, or other health factors (Jordan, 2007). The term neurobiological disorder is used to categorize behavior exceptionalities that are identified with psychiatric disorders, emotional disorders, and mother mental health disturbances (Jordan, 2007). 15% of Canada's children and youth suffer from mental health disorders that affect behavior and require treatment or intervention (Saskatchewan Health, 2005). The most common mental health disorders are anxiety disorders, Attention Deficit Hyperactivity Disorder (AD/HD), Conduct Disorder, depressive disorders, substance abuse, and PDD. Other less common disorders include: schizophrenia, Obsessive-Compulsive Disorder (OCD), Bipolar Disorder, eating disorders, and Tourette's Syndrome (Saskatchewan Health, 2005).

Students with *physical disabilities* require assistance in learning situations to provide equal opportunity for achievement when compared to their peers (Jordan, 2007). Conditions in this category include physical disabilities resulting from disease, closed head brain injury, and illnesses like HIV-AIDS (Jordan, 2007). Blindness and other visual impairments are also included in this category. Students with this type of disability suffer sight loss, even with correction, that impairs their educational achievement (Jordan, 2007).

Students with *multiple disabilities and exceptionalities* typically require support from a professional with additional qualifications in special education (Jordan, 2007). Multiple disabilities is a term reserved for those students "who have considerable as well as multiple disabilities" (Jordan, 2007, p. 77). These students may have a severe disability or exceptionality

coexisting with other disabilities and exceptionalities. For example, a student may have a learning disability and be gifted. 1- 1.5% of the school age population suffers from multiple exceptionalities (Jordan, 2007).

Because of the mandated philosophy of inclusion students with special needs are part of the general classroom setting in most Saskatchewan schools (Saskatchewan Learning, 2005). These students vary in nature and degree of condition, disability, and required adaptations. They may be experiencing an undiagnosed concern, or they may receive special funding as the result of a diagnosed disability (described below). Saskatchewan Learning (2005) has designated certain categories of students who are eligible for funding and supports.

These categories include:

> **Visual Disability** (VI) when a medical practitioner certifies that the pupil: (a) has a measured loss of central visual acuity that may vary from blindness to 20/70 or less in a better eye with proper correction; or (b) has a field of vision no greater than 20 degrees at the widest diameter.
>
> **Deaf and Hard of Hearing** (D/HH) when an audio logical assessment, by a qualified person acceptable to the Minister, certifies that the pupil has: (a) a hearing loss in which the average of the three most severe of the following frequencies, 250, 500, 1000, 2000, 4000 Hertz is greater than 34 decibels in the better ear (unaided); or (b) a unilateral loss in which the unaided difference between the affected and unaffected ear is 50 decibels or more and there is a significant delay in speech or language.
>
> **Intellectual Disability** (ID) when an individual who is acceptable to the Minister and who is qualified to conduct individual psychological assessments certifies that the

pupil: (a) scored at least three standard deviations below the mean on an individual standardized test of mental ability; and (b) demonstrated a deficit in adaptable behaviors, as measured by an approved individual measure of adaptive behavior.

Orthopedic Disability (OH) when a duly qualified medical practitioner certifies that the pupil has an identified physical condition that: (a) adversely affects his/her educational performance; (b) seriously restricts the pupil's mobility within the learning environment; (c) seriously limits the pupil's self-help activities; (d) limits the use of conventional transportation; or (e) requires specialized technological aids to access curriculum.

Chronic Illness (CI) when a duly qualified practitioner certifies that the student's physical health: (a) Limits or does not permit school attendance and that hospital or home placement is required for at least three months; (b) adversely affects his educational performance at school to the extent that ongoing special education supports are required; or (c) requires personal care and supervision to ensure the health and safety of the students in school.

Severe Multiple Disability (MD) when an assessment, acceptable to the Minister, confirms that the pupil has concomitant recognized disabilities of the types described in this section (Saskatchewan Learning, 2005, p. 7).

According to the philosophy of inclusion, students who suffer from one or more of these disabilities, are to be educated within the regular classroom setting unless being in the regular classroom would be detrimental to their success, or the success of their classroom peers (CACL, 2004; Lindsay, 2003; SACL, 2003; Saskatchewan Learning, 2005; SERC, 2000).

Currently, students with special needs are assessed individually by school psychologists to determine their strengths and weaknesses and then an Individualized Education Program (IEP) is developed (CACL, 2004; Downing, 2005; Etscheldt, 2006; Hendrick-Keefe, 1996; Hodges, Lamb, Brown, & Foy, 2006; Lupart, 1999; McMillan, 2007; Moore et al., 1998; Ruder, 2002). In Saskatchewan, this individualized plan is called a Personal Program Plan (PPP) (Saskatchewan Education, 2001). Both short and long-term goals, specific to the student's needs and education, are developed and regular assessment occurs to ensure that these goals are being met (CACAL, 2004; Downing, 2005; Etscheldt, 2006; Hendrick-Keefe, 1996; Hodges et al. 2006; Moore et al., 1998; Ruder, 2002). Downing (2005) specifically emphasizes the importance of monitoring literacy skills within inclusive environments because of the impact literacy skills have on positive growth and development for all students. A common component of a student's PPP is to implement strategies for coping within the inclusive classroom. This discussion continues with an overview of the implications of inclusion for the regular classroom teacher.

Barriers to Inclusive Practices in General Education

Despite the international and provincial legislation that inclusive education be the standard for all schools, many researchers maintain that our current educational system does not allow inclusive settings to reach acceptable and consistent practices. Some skepticism, regarding the definition, concept, and philosophy of inclusion, exists. How inclusive practices are implemented may also vary from school division to school division (CACL, 2004; Day, 1985; Fuchs & Fuchs, 1994; Hall, Collins, Benjamin, Nind, & Sheehy, 2004; Jordan, 2007; Kavale & Muster, 2003; Lupart, 1999; Moore et al., 1998; Sindelar et al., 2006). Calling classrooms or schools "inclusive" does not necessarily mean that inclusion is occurring (Hodkinson, 2005; Kavale & Mostert, 2003;

Kerzner-Lipsky, 2003; Lupart, 1999; Sindelar et al., 2006). In essence, "support for an ideology cannot be translated into classroom practice" (Lupart, 1999, p.16). For example, often educators are faced with decisions made by administration, school divisions, or provincial governing bodies that dictate a philosophy, such as inclusion, but they may not be provided with the essential funding, professional development, and support for the philosophy to become a reality within the classroom (Hodkinson, 2005; Kavale & Mostert, 2003; Lupart, 1999; Sindelar et al., 2006). Lupart (1999) refers to this phenomenon as 'incremental change' (p. 13) and indicates that the development and sustainability of inclusive education systems becomes problematic.

Sindelar et al. (2006) discovered that three specific issues disrupt the sustainability of inclusive practices. These include changes in leadership, shifting district policies, and teacher turnover. Cruzeiro and Morgan (2006) support this in their research in rural schools. They maintain that school principals support inclusive practices and can be the critical factor in determining whether or not inclusion works in a school.

Another issue is the effectiveness of inclusive environments. "Despite the number of testimonials to the effectiveness of inclusion, published reports of methodologically sound, data-based studies about the practice are virtually non-existent" (Murphy, 1996, p. 476). Lindsay (2003) adds that research that wholeheartedly endorses inclusive educational practices is scant, but he does acknowledge that there is some evidence to support more positive growth among students with special needs who are educated in inclusive settings.

Other researchers maintain that inclusion can be detrimental to the positive growth and development of students with special needs (Kavale & Mostert, 2003; Lindsay, 2003) and actual harm may occur in the implementation (Fuchs & Fuchs, 1994; Kavale & Mostert, 2003). Specifically, Kavale and Mostert (2003) discovered that students with special needs are less

accepted by peers and that the dislike towards them actually increases over time. However, Moore et al. (1998) maintain that negative outcomes from studies done in inclusive settings are the result of students being placed in general education settings without adequate support, collaboration, or resources. Lindsay (2007) indicates that discrepancies between how inclusion is defined by professionals in educational settings and the practices that are associated with these differences may result in negative findings regarding inclusive programming. In other words, implementing the philosophy of inclusion without support, training, and collaboration may result in negative research findings (Lindsay, 2007; Moore et al., 1998).

Despite conflicting opinions on the subject of segregation and inclusion, "research has shown that segregating students has been detrimental to their academic performance and social adjustment" (Reganick, 1995, p. 3). Baker, Wang, and Walberg (1995) and Rossman and Salzman (1995) reveal similar results in their research on the effects of inclusion on learning. Students in "inclusive programs made academic gains regardless of labeled disability" (Rossman & Salzman, 1995, p. 7). Several researchers discovered that students with special needs perform better in inclusive settings, both academically and socially, than those not educated in inclusive settings (Baker et al., 1995; Moore et al., 1998; Rossman & Salzman, 1995; Wang & Walberg, 1995).

The effects of inclusion on various subgroups within the special needs continuum and for students without special needs are not always clear (Hendrick-Keefe, 1996; Murphy, 1996). Parents of "normal" students may feel that the needs of their own children are overlooked as teachers attend to the needs of more needy students (Hendrick-Keefe, 1996; Reganick, 1995). However, Lindsay (2003) indicates that no evidence has been shown to support detrimental effects on academic growth for regular students in inclusive settings. Parents of disabled students either favor inclusion because of the challenge and increased expectations for their children, or they oppose it because of the

burden on the teacher and the chance that the environment would not be a welcoming one (Kavale & Mostert, 2003). Peck, Staub, Gallucci, and Schwartz (2004) discovered that inclusion "is *likely* to be of substantial benefit to non-disabled children" (Peck et al., 2004, p.141). Moore et al. (1998) did not discover any negative outcomes, academically or socially, for non-disabled students in inclusive settings.

For those students with special needs, the school program in which they are placed can have an impact on their future success in both formal education and in society (CACL, 2004; Jordan, 2007; Stainback & Stainback, 1992). Labeling students as needing special services and separating them from general education settings can influence learning (Day, 1985). For example, Stainback and Stainback (1992) maintain that students with special needs should not automatically be placed in vocational programs, based on their labels, unless regular academic program students are also acceptable candidates for these types of programs. Students with special needs should have equal opportunity to pursue some form of post-secondary education or vocational training. They are not automatically to be assigned to vocational skills training (Stainback & Stainback, 1992). Along with this controversy is the difference among educators with respect to their perceived level of responsibility to ensure that students with special needs meet the necessary requirements for post-secondary educational institutions (Jordan, 2007). Those students who do not attend post-secondary institutions may not have the opportunity to be exposed to desirable trades and other occupations (Jordan, 2007).

Others maintain that because " a principle goal of education is to prepare all students to be peaceable, moral , and productive members of our community…Educators must realize that separate education will not connect students to a broad social perspective" (Reganick, 1995, p. 7). Students educated in a diverse environment will meet the variety and uniqueness of individuals that exists

within our population (Jordan, 2007; Reganick, 1995; Stainback & Stainback, 1992). "Although inclusion means different things in different places, there is universality to the underlying human rights philosophy of inclusion which suggests that the concept is destined to persist" (Jordan, 2007, p. 7). Kavale and Mostert (2003) believe that the movement towards the practice of inclusion exists because morality and justice indicate that inclusion is the fairest way to work student communities. The chance and opportunity for students to develop understanding, tolerance, and respect for others that can potentially be achieved in the inclusive setting is of primary importance (Jordan, 2007; Kavale & Mostert, 2003; Reganick, 1995; Stainback & Stainback).

The dilemma for regular classroom teachers is how to meet effectively the needs of students within the same classroom. "The teacher's job in the inclusive classroom is to arrange instruction to benefit all students even though the benefit may be different" (Reganick, 1995, p. 9). Baker et al.'s (1995) concern is with the actual implementation of inclusion not a discussion of the need for inclusion. In the past, classroom teachers did not need to know how to educate students with special needs because these students were educated separately by special education teachers. The evolution of special education and the implementation of services for students with special needs within schools have had an impact on the implementation of inclusive education in regular classrooms. Historically, teachers perceived those working in special education classrooms, or with designated students, to have received specific preparation or to have a special capacity for their work. Regular classroom teachers were not expected to perform the same tasks as those who were responsible for the education of students with special needs (Lupart, 1999; Soodak, 2003; Villa & Thousand, 1995). According to Lupart (1999):

> A continuous reduction of student diversity in regular classrooms over the past 30

> years has left many teachers, unable or unwilling, to reach out beyond regular teaching and instructional practice. The special education model has taught regular teachers that they cannot handle special needs children, and this is generally confirmed by teacher preparation programs that are separate for special and general educators (p. 16).

The notion often persists that teachers must be 'specialists' before they can address the needs of a diverse student population (Mather, 2002). However, current regular classroom teachers are continually faced with the challenge of accommodating students with special needs into regular classroom settings. This may include meeting the needs of students who are designated, as defined earlier, or others who also have special needs, but do not fit the criteria for designation according to Saskatchewan Learning (2005). According to Kavale and Mostert (2003), in the past, general classroom teachers were more willing to accept students into their classroom when they would not be expected to accommodate their needs or to make any changes. "General education teachers were also found to be more willing to integrate students whose disabilities did not require additional responsibilities on their part" (Kavale & Mostert, 2003, p. 197). Teachers were willing to accept students with special needs, only if it did not create more work for them. Kavale and Mostert (2003) discovered that many teachers in general education were more concerned with maintaining a steady routine. Conformity was the goal, rather than individual accommodation, when teachers were faced with large numbers of students and overwhelming diversity. They also concluded that regular education classes could not provide students with special needs with any type of "special" education. As a result, students with special needs just learned how to mask their disabilities and coped within general classrooms. Recent evidence shows that general education teachers are more

willing to accommodate any student, despite the necessary accommodations that may be required (Kavale & Mostert, 2003; Lupart, 1999).

It is common for teachers to be responsible for the instruction and evaluation of students with mild disabilities, learning, emotional, and behavioral challenges, and other needs that require specific attention, even if they do not receive additional funding, assistance, training, or professional development opportunities. (Bruns & Mogharreban, 2007; Kavale & Mostert, 2003; Lindsay, 2003; Lupart, 1999; SACL, 2003; Sindelar et al., 2006; Soodak, 2003; Stainback & Stainback, 1992). Inclusive practices occur in regular classrooms and teachers meet the needs of more and more diverse student populations within general education classrooms, whether or not they are prepared.

Teachers who are poorly prepared to meet the needs of special students in an inclusive classroom poses concerns. Research demonstrates that many teachers do not feel ready or trained to address the educational needs of students with special needs (Bruns & Mogharreban, 2007; CACL, 2004; Edmunds, 2003; Fewster, 2006; Hendrick-Keefe, 1996; Hodkinson, 2005; Kavale & Muster, 2003; Reganick, 1995; SACL, 2003; Tindal et al., 2003). For example, a recent study in British Columbia revealed that 43% of teachers did not feel prepared to teach the diverse range of students within their classrooms (Fewster, 2006). At present, "teacher training has failed to keep up with the demands of inclusive school systems, and teachers feel generally unprepared for inclusion and under-supported in attempting to include a range of learning needs in their classes" (Jordan, 2007, p. 55). Teachers often feel that they do not have the time to meet regularly with specialists to gain the knowledge necessary to address the needs of diverse student populations (Fewster, 2006; Kavale & Mostert, 2003). The importance of collaboration and teamwork, when working with students with special needs, emphasizes that teachers consult and work with specialists.

Hodkinson (2005), in his research with new teachers, refers to what he terms a "shallow understanding" (Hodkinson, 2005, p.21) of the practice of inclusion. Many beginning teachers do not understand the implications of the diversity they will face in their classrooms. The result is that they often do not identify improving their skills in an inclusive environment as a possible area for professional development. This is further perpetuated by the fact that many new teachers were educated in classrooms that may not have included students with special needs. Therefore, they have been exposed very little to the philosophy of inclusive education. Many new teachers arrive at their first jobs without adequate instruction in the philosophy of inclusion and its implementation (Hodkinson, 2005).

Reports from both the Canadian and the Saskatchewan Chapter of the Association for Community Living (CACL, 2004; SACL, 2003) note that many teachers are not required to take more than one class in special education. As a result, many regular classroom teachers have received very little information regarding students with special needs. An increasing reduction in professional development time, resources, and classroom support has not improved this issue. In addition, the CACL (2004) and the SACL (2003) recognize that many teachers do not always understand the role of Educational Assistants or their role in relation to these, and other professionals, who are assisting students with special needs in their classes.

Inclusive schools potentially cost more (Hendrick-Keefe, 1996) as teachers require more time and resources to plan to meet the needs of an increasingly diverse student population (Kavale & Mostert, 2003; Moore et al., 1998). However, funding needs to support the development of a fully inclusive system that functions (CACL, 2004; Lupart, 1999; Moore et al., 1998; Sindelar et al., 2006). This cost is compounded by the fact that class sizes are often too large and individualized instruction for specific students suffers. (CACL, 2004; Fewster, 2006; Flowers, Delzell, Browder, &

Spooner, 2005; Kavale & Muster, 2003). Even if regular classroom teachers receive additional training and professional development, they may not be able to implement specific practices because class sizes are too unmanageable. The Salamanca Statement (1994) advocates an approach to education that focuses on individual students and the full extent of individual differences that may exist within a classroom. Specifically, according to the Salamanca Statement (1994),

> A child-centered pedagogy can help to avoid the waste of resources and the shattering of hopes that is all too frequently a consequence of poor quality instruction and a 'one size fits all' mentality towards education. Child-centered schools are, moreover, the training ground for a people-oriented society that respects both the differences and the dignity of all human beings (UNESCO, 2007, p. 7).

Despite the challenges and controversy surrounding inclusive education, the fact remains that teachers are facing more and more diversity in their classrooms. Increasingly, classroom teachers develop strategies to implement programs that will address the daily, diverse range of students. One way to improve learning for all students is to engage in assessment and grading practices that encourage and facilitate learning and reflect the skills required to be successful in life. Some researchers maintain that the best way for teachers to face this challenge is to use their existing skills to meet the needs of students (Jordan, 2007; Mather, 2002; Moore et al, 1998). Teachers already know how to suggest alternative means of completing tasks and they know how to approach learning from other perspectives (Mather, 2002). Teachers can use what is already working and then adapt, fine tune, and develop instruction that will work for all students. The appropriate approach to take is one of refining and extending the best practices of regular teaching (Jordan, 2007; Mather, 2002: Moore et al., 1998).

Hodges et al. (2005), Lupart (1999), and Moore et al. (1998) suggest that successful teachers in inclusive classrooms teach for knowledge, not content. Their concern is with ensuring that students learn to the best of their ability and teachers base their educational decisions on individual learning potential. The best educators, according to Mather (2002), are those who "are interested in their students as learners-not vessels for fact, clients, customers or service users, fascinating research subjects or 'heartsink' patients" (Mather, 2002, p.17). She adds that effective educators focus on individual learning processes and adapt accordingly.

Finally, assessment is probably the most important tool for special needs students. Assessments determine eligibility for programs and services, measure achievement, and focus new directions for instruction (Weber, 1994). Within inclusive classrooms, teachers are under increased pressure to demonstrate that their students are improving academically. Measures of accountability and large-scale assessments ask that teachers show that all of their students, the regular and the special needs, are learning (Hall et al., 2004; Sindelar et al., 2006). Traditionally, students with special needs were exempt from standardized large-scale assessments. However, more recent government mandates to improve education for all indicate that all students show growth and positive achievement, regardless of their disabilities or conditions (Hall et al., 2004; Sindelar et al., 2006; Tindal et al, 2003).

Of increasing importance is the fact that classroom assessment methods and grading practices indicate levels of achievement. The implementation of sound classroom assessment practices provide an opportunity for every student to achieve within a regular educational setting. The next section will provide a brief history, literature review, definition, and summary of the purposes of assessment, and how grading and classroom assessment practices can be used to facilitate learning for all students within the regular classroom.

The Assessment Paradigm

In the past, assessment was used to motivate students. An impending exam, a surprise quiz, or the familial pressure of failing report card grades were viewed as ways to increase anxiety and to, as a result, improve success (O'Connor, 2007; Stiggins, 2005). "Pressure to get high test scores and good grades, it was believed, would motivate greater effort and thus more learning" (Stiggins, 2005, p. 324). Students could be intimidated into performing and producing grades that were acceptable. However, this did not work for regular classroom students nor for those with special needs (O'Connor, 2007; Stiggins, 2005).

According to Stiggins (2005), students moved along from grade level to grade level and developed their sense of self-efficacy and competency from their successes or failures within the classroom. Students were motivated to continued success based on their perceived or real attainment of acceptable standards of achievement in the classroom. Those who perceived that they had not done well either struggled to learn more, or gave up hope and did not successfully proceed through their school years. In effect, the goal of attempting to motivate students through assessment did as much to discourage students from attaining academic excellence as it did to produce successful learners (O'Connor, 2007; Stiggins, 2005).

Standardized testing and large-scale assessments continue to be used to make decisions about programming, funding, and directions for future educational improvement. They have also been used to determine whether or not schools are producing students who are achieving certain standards and to serve as a means for ensuring that schools are accountable for their results (Browder, Spooner, Algozzine, Ahlgrim-Delzell, Flowers, & Karvonen, 2003; Darling-Hammond, 1994; Lukin et al., 2004; McMillan, 2007; Nickell, 1993; Tindal, Mcdonald, Tedesco, Glasgow, Almond, Crawford, & Hollenbeck, 2003).

Closely linked to the practice of standardized testing is the issue of accountability. Accountability has continued to be a key area of concern in educational assessment. Schools, divisions, provinces, and countries are asked to prove that what they are doing is producing results for students. For example, according to Stiggins, Conklin, and Bridgeford (1986) "available evidence suggests that the dominant view regards measurement in education as a means of documenting student achievement by using collections of standardized paper and pencil test items for public accountability" (p. 5).

Wormeli (2006) distinguishes between two definitions of accountability that can be applied to assessment and grading practices. The first definition explains accountability in terms of the benefits that it can be to others because it is based on adhering to strong values. He believes that accountability enables individuals to find meaning and to experience growth in a positive way. Both teachers and students benefit in a process that is productive and nurturing. In contrast, policy makers and educators typically use accountability to discover the mistakes made by others. In this definition, he explains accountability in terms of a "caughtya" or "gotcha" type of system, which points out students' and teachers' errors without room for growth or positive development. The current system focuses on pinpointing whom or what is responsible for achievement results, rather than enhancing learning. He believes that assessment and grading practices should be concerned with the first definition of accountability because, currently "we fail students when we misuse grading practices on the pretense of teaching accountability" (Wormeli, 2006, p. 20). Grading provides students with what he terms a "ladder" to help those who are struggling climb out of failure and hopelessness. In this way, underachieving students find hope and nurturance. He further states that:

> Accountability is not a one-way street, nor is it departmentalized. In simplified

> terms, teachers hold themselves accountable to students, the school system, the curriculum, and a set of professional ethics. They hold students accountable for hard work, civil behavior, and learning the material. None of these is a sole connection, of course. In efforts to find liability and for what a student is answerable, we sometimes forget that a student learns from an aggregate of factors: the teacher, the student himself, the curriculum, his parents, his friends, the media, the community, available resources, time, and socio-economic status, just for starters. Who or what will we hold in contempt, then, for the student's failure to thrive, should it happen? And if the student scores beyond expectations, who will reap the accolades? (p. 15).

By focusing on making someone accountable, education has placed too much emphasis on the end results of high-stakes testing (DeLisle & Hargis, 2005; Erickson, Ysseldyke, Thurlow, & Elliot, 1998; Nickell, 1993). We have become more concerned with large-scale assessment results in an attempt to gain greater excellence and to produce high quality learning (Erickson et al., 1998; Nickell, 1993). Many theorists would argue that, by focusing on the end results, we have lost the benefits of the process. By focusing on testing isolated facts in an arbitrary and decontextualized order, we have lost focus on true knowledge and understanding (Nickell, 1993). Stiggins et al. (1986) believe that we need to change our dominant viewpoint because we are not focusing on the most common educational form of measurement- that done daily by regular education teachers in general classrooms. They maintain that:

> The current measurement paradigm is too narrow and restrictive…the kind of measurement referenced under the dominant paradigm represents only a small

> fraction of the assessments that take place in schools and that influence the quality of schooling and student learning (p. 6).

As a result, assessment reform is one of the most highly favored concepts in improving teaching, learning, and accountability for educational institutions (McMillan, 2001; Stiggins, 2005). Even though large-scale assessments have always received considerable attention, what occurs in the classroom is increasingly more important (Davies, 2008; Hargreaves, Earl, & Schmidt, 2002; James & Pedder, 2006; Lukin, Bardalos, Eckout, & Mickelson, 2004; O'Connor, 2007). Recent trends in educational assessment have emphasized the importance of ongoing classroom assessment and not just the assigning of a grade at the end of learning, as has been traditionally done (Davies, 2008; McMillan, 2007; O'Connor, 2007).

Enhancing assessment practices needs to be the focus of successful classroom instruction, improved student learning, and raising achievement standards. School divisions need to provide teachers with opportunities to become experts in a variety of assessment tasks that truly assess learning in a meaningful, purposeful, and sustainable way (Davies, 2008; McMillan, 2007; O'Connor, 2007). "We need more leadership for assessment…. What we need is educational leadership" (Hutchings, 1990, p. 44). Large-scale assessment practices are no longer an acceptable measure nor do they capture a student's potential. "This approach to assessment is also known as the testing culture….and consists primarily of decontextualized, psychometrically designed items in a choice-response format to test for knowledge and low-level cognitive skill acquisition" (Gulikers, 2004, p. 67). These skills are out of context, isolated, and do not really assess the potential of students to be successful in society (Gulikers, 2004; Hargreaves et al., 2002; James & Pedder, 2006; Lukin et al., 2004; Stiggins, 2005).

A greater focus on the routine assessments and grading practices of general classroom teachers may enhance learning and achievement for a diverse range of students (Davies, 2008; McMillan, 2007; O'Connor, 2007). "Everyday classroom assessment has the unleashed potential to help students improve their performance and deepen their learning" (Sato, Baker, Fong, Gilbertson, Liebig, & Schwartzfarb, 2006, p. 21). Establishing and maintaining high standards, encouraging success for all students, and using assessment to facilitate effective instruction remains the goal of classroom assessment and grading practices (Davies, 2008; McMillan, 2007; O'Connor, 2007). Teachers are likely to modify their instructional techniques and their assessment and grading practices in order to accommodate diversity (Davies, 2008; McMillan, 2007; O'Connor, 2007). The next section will provide an overview of what is meant by classroom assessment and grading and the implications that they have for instruction and learners within the classroom.

Assessment and Grading Practices in the General Education Classroom

In general, "assessment" refers to all activities used by teachers and students to accumulate information used diagnostically to make learning a positive process (Boston, 2002; Black & Wiliam, 1998; Darling-Hammond, 1994; Davies, 2008; McMillan, 2007; Rudner & Schafer, 2002; Tombari & Borich, 1999; Wilson, 1997). Assessment includes the collection, evaluation, and use of information to aid teachers in making decisions regarding student learning (Black & Wiliam, 1998; Davies, 2008; McMillan, 2007). "We use the general term assessment to refer to all those activities undertaken by teachers- and by their students in assessing themselves- that provide information to be used as feedback to modify teaching and learning activities" (Black & Wiliam, 1998, p.140).

Assessment identifies individual strengths and weaknesses as early as possible (Davies, 2008; Fewster, 2006). Part of this process is allowing students to realize that their success is a shared responsibility. Grading motivates students to this responsibility (O'Connor, 2007; Strong et al., 2004). If special needs students "are to believe in themselves as productive learners, then they must first experience credible forms of academic success as reflected in the results of what they understand to be rigorous assessment" (Stiggins & Chappuis, 2005, p. 2). Out of this, according to Rieck and Wadsworth (2005) and Stiggins and Chappuis (2005), confidence will develop. In turn, this will encourage more effort and result in a higher academic self-concept (Stiggins & Chappuis, 2005). The role of the teacher should be to perpetuate this cycle through meaningful and appropriate assessment tasks. This is why ongoing, regular assessment is important (Campbell & Collins, 2007; Hargreaves et al., 2002; Kerzner-Lipsky, 2005; Nickell, 1993; Stiggins & Chappuis, 2005).

Assessing is a complex process for teachers. Teacher training in assessment is important because, ultimately, classroom assessment practices result in grades that impact promotion, standing, and future opportunities for students (Boretz, 2004; McMillan, 2007; O'Connor, 2007; Zhang & Burry-Stock, 2003) Teachers use assessment tools to monitor learning and then they assign individual grades to students which are supposed to summarize and capture the extent to which students have learned (McMillan, 2007; O'Connor, 2007). "An assessment is a comprehensive, multifaceted analysis of performance; it must be judgment-based and personal" (Wiggins, 1993, p.13). Assessment includes observational records, homework, exams, assignments, and any other classroom activities used to evaluate progress and to determine grades.

Grading is the most common method of communicating student learning whether a

student has learned something or not (Allen, 2005). Grades summarize assessments, made by teachers, of students at the end of a specified time (Allen, 2005; McMillan, 2007; O'Connor; Tomlinson, 2005). This is done through the use of a letter code or percentage that represents the overall quality of student work (Allen, 2005; Green & Emerson, 2007). A "grade is supposed to provide an accurate undiluted indicator of a student's mastery of learning standards" (Wormeli, 2006, p. 18). Learning is the goal for classroom assessment and grading practices. Assigning students final grades with no opportunity for growth or improvement is fruitless. "Outcomes and grades are by no means one and the same thing. Grades can be fixed in place on a transcript. Learning is fluid and infinite in the wealth of returns that it brings" (Boretz, 2004, p. 46). Appropriate classroom assessment techniques create situations that facilitate learning and are integral to the success of students with special needs (Black & Wiliam, 1998; Hargreaves et al., 2002; Hodges et al., 2005; Kerzner-Lipsky, 2003).

Classroom assessment and grading practices are meant to enhance the learning process, facilitate instruction, and encourage opportunities for new knowledge to be gained (Allen, 2005; Campbell & Collins, 2007; Davies, 2008; Hargreaves, Earl, & Schmidt, 2002; Hodges et al, 2005; Lukin et al., 2004; McMillan, 2007; Nickell, 1993; O'Connor, 2007; Rieck & Wadsworth, 2005; Stiggins, 2004). "Assessment is integral to effective instruction" (Campbell & Collins, 2007) and is one of the most powerful educational tools for promoting effective learning (James & Pedder, 2006; Sato et al., 2006). Classroom assessment and grading should be designed to facilitate learning and is paramount in raising standards and empowering students to become lifelong learners (Black & Wiliam, 1998; Davies, 2008; O'Connor, 2007). "We must build classroom assessments in which students use assessment to understand what success looks like and how to do better next time" (Stiggins, 2004, p. 25).

According to the Canadian Association of School Administrators (CASA) (2001), there are several principles that guide fair and useful student assessment. These include:

a. the predetermined and publicly stated curriculum, both academic and social, is the basis for assessment of achievement;

b. the base from which achievement is measured, and the growth in achievement attained, are valued over the point of time comparison among students;

c. assessment instruments and procedures are sensitive to the cultural and social characteristics of the students and, promote the opportunity for all students to demonstrate the growth in their achievement;

d. regular and integrated assessment procedures are part of the planned program for all students, and are administered in a recognizable and flexible fashion;

e. variety in the assessment instruments and the procedures is used to increase the opportunity for students to demonstrate their achievement in the range of pre-determined attributes, which are being measured;

f. the results of assessment at all levels are to be provided in formats which are meaningful to the intended audiences, and are to promote growth in achievement through positive communication among partners in the education process;

g. assessment results are to be compared in ways which gives attention to the growth for the students who completed the instruments, and have a common base line for comparison;

h. growth in achievement by students is a measure of the accountability of the educational service, and changes in the service and in the personnel providing the service are to reflect the level of achievement growth (CASA, 2001, p. 31).

Assessments focus on what students know and how they can demonstrate their knowledge (Davies, 2008; Kerzner-Lipsky, 2005). Hodges et al. (2005) recommends that particular attention must be paid to students with special needs because they experience difficulty preparing for assessments and they often have difficulty expressing what they have learned through traditional assessment methods. Cross and Hynes (1997), Hodges et al. (2005), Kerzner-Lipsky (2003), McMillan (2007), Rieck and Wadsworth (2005), and Stainback and Stainback (1992) insist that teachers make assessment accommodations, while maintaining high standards, to ensure the success of students with special needs in general education classrooms. Careful and regular assessments are integral to the success of students with special needs (Fewster, 2006; Kerzner-Lipsky, 2005; Rieck & Wadsworth, 2005). These assessments must incorporate traditional, authentic, and alternative means (Hodges et al., 2005; McMillan, 2007). McMillan, (2007), Moore et al. (1998), and Tindal et al. (2003) advocate the use of performance-based and alternative assessments with students, especially those requiring special accommodations. High standards are not compromised in adapting new assessment techniques. Students are challenged by and need high standards. Maintaining these is crucial to success (McMillan, 2007; Stainback & Stainback, 1992). Brown (2001) indicates that it is imperative to establish high standards of achievement for all students. He agrees that this might mean that some accommodations or adaptations are necessary for students with special needs. However, their results should be reported along with the results of other students.

Assessment that is closely linked to a student's PPP is advocated by Ruder (2002) and Munk and Bursuck (2003). They maintain that assessment must be specifically linked to curricular content and which standards students with special needs can reasonably achieve. Alternative assessments are then constructed to meet these standards for students with special needs. The goal with regard to

inclusivity, according to Ruder (2002), is to formulate appropriate assessments that facilitate students with special needs' sense of belonging in the regular classroom. Lukin et al. (2004) recommend that three critical elements maximize learning for students. 1) Curricular needs are rigorous and clearly articulated. 2) The delivery of new material must be appropriate and effective. Finally, 3) appropriate classroom assessment and grading techniques are implemented. Munk and Bursuck (2003) add that parents are supportive of this practice due to the focus given to the needs of their individual child. Parents of students who have teachers who use this process, report that the personal interaction with their child is more important than the grade.

Grades are used to signify the amount that individual students have learned, and to provide measures of accountability for students and educational organizations (Browder et al., 2003; Darling-Hammond, 1994; Harlen, 2005; Hunt & Pellegrino, 2002; Nickell, 1993; O'Connor, 2007; Smith, 2001; Yorke, 2003; Zhang & Burry-Stock, 2003). "Assessment serves as a communicative device" (Broadfoot & Black, 2004, p. 9), linking educational institutions to the larger world community. The information from assessments, resulting in grades on report cards, is used from very informal exchanges to high-stakes testing, job applicant selection, and the monitoring of educational performance compared to other countries (Ascher, 1990; Broadfoot & Black, 2004; Browder et al., 2003; Darling-Hammond, 1994; Ecclestone & Pryor, 2002; Zhang & Burry-Stock, 2003).

Many researchers contend that assessment in education involves making decisions about what evidence is needed, how to collect it, how it should be measured, how to interpret it, how to eliminate bias, and how to communicate appropriately the results to students, parents, and other stakeholders (Borich & Tombari, 1999; Darling-Hammond, 1994; Harlen, 2005; Highs, 1993; Lukin et al., 2004; McMillan, 2007; O'Connor, 2007; Stiggins, 1997; Stiggins, 2004)

"Assessment is a sample of behavior taken under standard conditions" (Trice, 2000, p.305). This sample is used to make further decisions about placement, programming, advancement, or future instructional directions for learners (Browder et al., 2003; Darling-Hammond, 1994; McMillan, 2007; Trice, 2000; Zhang & Burry-Stock, 2003).

Elements of society influence the choices made in the use of assessment results. According to Black and Wiliam (2005), the many facets affecting assessment include the following: beliefs about what constitutes learning; the reliability, validity, and objectivity of testing; preference for numerical data that consists of a single number (grades, in most cases); trust in the integrity of instructors; value of competition between individuals, institutions, and nations; belief that testing results are indicators of school effectiveness; and, fear of national economic decline that is rooted in the need for educational improvement. Many of these aspects are based on tradition and difficult to discern. Some are not even susceptible to change, based on evidence to the contrary, while other aspects are based on no evidence at all (Black & Wiliam, 2005).

Assessment is relative to the climate in which it exists and is influenced by the goals and purposes of the larger society at hand (Broadfoot & Black, 2004). "It is the thinking, the habits, the technologies and the politics of a particular age and time that combine to shape the assessment practices that are realized in [educational institutions]" (Broadfoot & Black, 2004, p.9). According to Wiggins (1993), "when we assign value, we produce an impact; what gets measured gets noticed; what you test is what you get; what gets tested gets respected" (Wiggins, 1993, p. 5). Assessment involves who is being assessed about what, why they are being assessed and when. The decisions that evolve out of assessment and grading practices have far-reaching impact. The use of the information from assessments and grades is an ongoing concern. This is an important component for all learners, especially those with special needs within inclusive

classrooms.

An inclusive education system, according to Kerzner-Lipsky (2005) and Rieck and Wadsworth (2005), includes careful and regular assessments. Campbell and Collins (2007) maintain that constant and careful monitoring and intervention of student progress be maintained. Teachers could miss valuable opportunities to assist students' progress if they do not examine their learning frequently, carefully, and consistently (Campbell & Collins, 2007). Multiple methods and a variety of types of assessment used contribute to the success of students with special needs (Fewster, 2006; Moore et al., 1998; Rieck & Wadsworth, 2005). Teachers should ensure that their assessment and grading practices focus on achievement and not on disabilities or exceptionalities (McMillan, 2007).

Because of the diversity of students in the inclusive classroom, teachers are challenged to present knowledge in equally diverse, individualized ways. Learning then becomes meaningful and appropriate for each student. If assessment is one of the single most crucial factors for students with special needs in inclusive classrooms, simply because assessment results contribute to major decision about students' lives, then carefully designed assessment and grading practices are a challenge for the teacher.

Effective assessment and grading practices are student-centered and focus on measuring achievement. Teachers sometimes receive training and support in order to utilize appropriate assessment and grading practices to enhance learning for their diverse classroom populations. However, teachers need more opportunity to collaborate with other professionals who can assist them in understanding the specific needs of each student within their classrooms. In addition, if teachers demonstrate that students are reaching the desired levels of achievement, then they need to be skilled in implementing a variety of assessment techniques and utilizing specific purposes of assessment to target learning goals.

Three main purposes of assessment are discussed below. Summative assessments are those that primarily include traditional means of assessing within the classroom. Summative activities can form the basis of future formative assessments. Or, formative assessments contribute to a final summative grade. Formative assessment is focused on individual learners and incorporates a wide variety of strategies that teachers and learners use in collaboration. Assessment as learning concerns students' understanding of their own learning. All three types of assessment can be effective assessment practices. Importantly, effective assessments focus on individual strengths, useful and meaningful activities, sound measurement criteria and principles, and independent growth.

Assessment of Learning.

Assessment of learning is called summative assessment (Davies, 2008; Earl, 2003; Harlen, 2005; Klecker, 2002; McMillan, 2007; O'Connor, 2007; Trice, 2000; Wiliam & Black, 1996). It is used to confirm what students know and how well they have met curriculum guidelines (Earl, 2003; McMillan, 2007; Stiggins, 2005; Trice, 2000; Wiliam & Black, 1996; Yorke, 2003). Summative assessment is the most predominant kind of assessment that is used in classrooms (Earl, 2003) and is used "after learning is supposed to have occurred to determine whether it did" (Stiggins, 2005, p. 326). It assesses how well students have met their own personalized program goals or determines future placements in programs. It is used to communicate achievement to parents, other teachers and institutions, employers, government, and the general public (Earl, 2003; McMillan, 2007; O'Conner; Wiliam & Black, 1996). Summative assessment is intended to evaluate how a student has performed at a particular time (Earl, 2003; Hunt & Pellegrino, 2002; McMillan, 2007; O'Connor, 2007; Yorke, 2003) and to record this achievement in order to report it to others through a grading system that uses numbers or letters (Earl, 2003; Harlen, 2005; McMillan, 2007; O'Connor, 2007).

Any classroom assessment can be used in a summative fashion and most current classroom

assessment is summative in nature (Earl, 2003). Summative assessments are "a somewhat final decision about merit, worth, or value" (Smith, 2001, p. 51). Wiliam and Black (1996) and O'Connor (2007) agree. Earl (2003) and Hunt and Pellegrino (2002) expand upon this definition by also stating that summative evaluation makes note of a learner's capability at a certain time and ignores the potential for learning. Capacity for improving is not acknowledged. This is a limitation of summative evaluation because it implies finality on the level that is attainable and does not allow for further development or exploration of other capabilities beyond what has been already determined at that particular moment.

McMillan (2007) is concerned that summative assessments can decrease student motivation because they are often highly superficial, out of context, and not meaningful to students. There is no focus on the learning process. For example, in summative activities, feedback is not immediate because it occurs at the end of a segment of study. This does not allow students the chance for improvement.

On the other hand, in considering Wiliam and Black's (1996) theory of summative and formative evaluation as two ends of a continuum, a summative process can also contribute to formative assessment processes. Depending upon the nature and number of summative tasks, for example, it is plausible that summative assessment throughout a unit of study could contribute to a formative process as well.

Summative uses of assessment can be grouped into either 'internal' or 'external' purposes within educational institutions (Gardner, 2007; Harlen, 2005). Internal summative assessments are used to keep track of grades, make programming decisions, and to inform parents (Gardner, 2007; Harlen, 2005). External summative assessments are used to certify institutions, confirm vocational qualifications, provide basis for post-secondary or employment decisions, and to monitor

institutional performance and accountability (Gardner, 2007; Harlen, 2005; McMillan, 2007). Because assessment of learning is public, it often helps to determine important decisions regarding the future of student education, programming, funding, and focus for more exploration and future research in assessment (McMillan, 2007).

In summary, summative assessment captures an individual's knowledge at a particular time under specific circumstances in order to communicate this learning to others through a grade. Assessment for learning is focused more on the process of learning, instead of the final result.

Assessment For Learning.

Assessment for learning, is typically called formative assessment (Black & Wiliam, 1998; Christensen et al, 2006; Davies, 2008; Earl, 2003; Ecclestone & Pryor, 2002; Harlen, 2005; Klecker, 2002; McMillan, 2007; Smith, 2001; Trice, 2000; Wiliam & Black, 1996). Formative assessment is distinguished from summative assessment in terms of processes and outcomes (Davies, 2008; Earl, 2003; Harlen, 2005; Wiliam & Black, 1996). Formative assessment "shifts the emphasis from summative to formative assessment, from making judgments to creating descriptions that can be used in the service of the next stage of learning" (Earl, 2003, p. 24). Examples of formative assessment activities include: focused observations, questionnaires, student-teachers conferences, or whatever other types of assessment that can be used to inform the learning process (Earl, 2003; McMillan, 2007). Because of the focus on assessment reform, more and more classrooms teachers are using classroom assessment practices that are formative in nature (McMillan, 2007).

Historically, "the term 'formative evaluation' was first used by Michael Scriven (1967) in connection with the improvement of curriculum" (Wiliam & Black, 1996, p. 1). Formative assessment is used to promote learning and not just to make judgments about success (Davies, 2008; Earl, 2003; James & Pedder, 2006; McMillan, 2007; Stiggins, 2005). It is used in the middle of

learning, instead of just at the end (Davies, 2008; Earl, 2003; McMillan, 2007). Formative assessment makes each student's learning visible. Teachers can decide what to do next in order to enhance progress. It is intended to explore the capacity of students, to determine their capabilities (Hunt & Pellegrino, 2002; James & Pedder, 2006), to help them along in the learning process (Davies, 2008; Earl, 2003; Harlen, 2005; James & Pedder, 2006), and to inform decision-making about how to improve their learning (Davies, 2008; Earl, 2003; James & Pedder, 2006; McMillan, 2007; Smith, 2001). Formative assessment can be used to determine what students know, what they can do, what troubles them, what their perceptions are, and how to alleviate any confusion. Teachers can also identify gaps in learning and address any other concerns that may become apparent. (Boston, 2002; Davies, 2008; Earl, 2003; James & Pedder, 2006; Popham, 2006; Stiggins, 2005; Torrance & Pryor, 2001; Wiliam & Black, 1996; WNCP, 2003).

Formative assessment involves a purposeful and structured course of action designed to improve learning outcomes (Davies, 2008; Earl, 2003; Hargreaves et al., 2002; James & Pedder, 2006; Klecker, 2002; Marks & Maniates, 2003; McMillan, 2007; Stiggins & Chappuis, 2005). In order for teachers to engage in this process it is necessary for them to have an understanding of the learners' current level of knowledge (Davies, 2008; Earl, 2003; Hargreaves et al., 2002; James & Pedder, 2006; Yorke, 2003). This allows teachers to identify gaps between the actual level of understanding and the desired learning outcome (Davies, 2008; Earl, 2003; Hargreaves et al., 2002; Hodges et al., 2005; Marks & Maniates, 2003; Rieck & Wadsworth, 2005; Stiggins & Chappuis, 2005; Wiliam & Black, 1996). Teachers make learners aware of the required standard of achievement in order to guide their learning (Campbell & Collins, 2007; Davies, 2008; Earl, 2003; Ecclestone & Pryor, 2003; Hargreaves et al., 2002; James & Pedder, 2006; Jordan, 2007; Marks & Maniates, 2003; Rieck & Wadsworth, 2005; Stiggins & Chappuis, 2005; Yorke, 2003).

The learner becomes central to the concept and process of formative assessment (Brookhart et al., 2004; Davies, 2008; Earl, 2003; Hargreaves et al., 2002; Stainback & Stainback, 1992; Taras, 2002; Yorke, 2003). Cooperation and collaboration between teacher and student enhances learning and increases understanding (Davies, 2008; Earl, 2003; Hargreaves et al., 2002; James & Pedder, 2006; Klecker, 2002; Stiggins & Chappuis, 2006). The development of student autonomy is enhanced (Taras, 2002) and so is motivation (Brookhart et al., 2004; Davies, 2008; Earl, 2003; Ecclestone & Pryor, 2003; Hargreaves et al., 2002; McMillan, 2007; Rieck & Wadsworth, 2005) as learners are given the guidance needed to solve more and more complex problems (Hargreaves et al., 2002; Stiggins & Chappuis, 2006; Yorke, 2003).

Ecclestone and Pryor (2003) state that the formative process can transform learner identity over time and is part of developing individual self-esteem. Student performance improves and achievement increases with the use of a formative process (Brookhart et al., 2004; Hargreaves et al., 2002; Stiggins & Chappuis, 2005). As learners reflect actively on their progress, they become more aware of their learning and can make decisions on how to improve (Brookhart et al., 2004; Hargreaves et al., 2002; James & Pedder, 2006; Stiggins & Chappuis, 2005). Stiggins and Chappuis (2005) maintain that teachers are important in this process because they instruct students in the skills needed to effectively take ownership over their own learning. In effect, "students must be taught the skills they need to be in control of their own ultimate academic success: self-assessment and goal setting, reflection, keeping track of and sharing their learning" (Stiggins & Chappuis, 2005, p. 13). Rieck and Wadsworth (2005) and Stainback and Stainback (1992) extend this concept by stating that is especially important for students with special needs to participate in cooperative learning activities that allow them to showcase special skills and share their work with others.

Continuous, ongoing, relevant, and effective feedback is a critical element in the formative

process (Black & Wiliam, 1998; Boston, 2002; Davies, 2008; McMillan, 2007; Smith, 2001; Taras, 2002; Wiliam & Black, 1996; Yorke, 2003). Every author, who is a proponent of formative assessment, stresses the importance of feedback (Burrough, Beaumont, Schaller, & Cannon, 2003; Brookhart et al., 2004; Ecclestone & Pryor, 2003; Hargreaves et al., 2002; Hunt & Pellegrino, 2002; James & Pedder, 2006; Jordan, 2007; Klecker, 2002; Marks & Maniates, 2003; McMillan, 2007; Smith 2001; Stiggins & Chappuis, 2005; Taras, 2002; Wiliam and Black, 1996; Yorke, 2003). These researchers also maintain that feedback does not necessarily have to come from the classroom teacher, it can come from anyone. For example, Klecker (2002), believes that collaboration with peers can also be an integral component of providing feedback to students. This mutually beneficial process encourages learners to express their thoughts verbally, share their opinions, and to listen to the learning of others. Based on the research of Weston (2004), computer technology can also be used to provide immediate feedback to learners.

According to Taras (2002), three conditions must exist in order for feedback to be effective. Students must be aware of the standards that they are required to attain (Taras, 2002; Yorke, 2003), they must be able to compare the required standards to their own work and progress, and steps must be taken to decrease the gap between the students level of knowledge and what is required (Taras, 2005).

Formative assessment acknowledges that students learn in diverse and individual ways, but there are still predictable patterns that they will follow in increasing their proficiency. Teachers are aware of this universal process and effectively guide students and adapt to meet them where they are at in their learning process. This requires time, knowledge, and understanding of student development and assessment tasks and the ability to adapt regularly and appropriately (Black & Wiliam, 1998; Boston, 2002; Christensen et al., 2006; Davies, 2008; McMillan, 2007; Stiggins,

2005; Taras, 2002; Trice, 2000; Yorke, 2003). "Teaching and learning must be interactive" (Black & Wiliam, 1998, p. 140). Teachers must be prepared to adapt their teaching to meet the needs of students as they arise (Black & Wiliam, 1998; Boston, 2002; Christensen et al., 2006; Davies, 2008; McMillan, 2007; Stiggins, 2005; Taras, 2002; Trice, 2000; Yorke, 2003).

Finally, the formative process applies to a variety of situations, some examples including: a formative process as part of teacher development (Marks & Maniates, 2003); self-evaluation to complement formative assessment (Boston, 2002); peer assessment as a formative process (Klecker, 2002); and the use of formative assessment relating to new technology (Weston, 2004).

Formative assessment maintains that the student is central in the learning process. Students take ownership for their own learning as the teacher provides direction, guidance and feedback to achieve the desired outcomes. This is a complex, time-consuming, and challenging task for educators in inclusive classrooms.

Assessment As Learning.

Assessment as learning focuses on cognitive and/or metacognitive processes. Cognitive processes are those that involve: deeper understanding and use of information in new ways; thinking about knowledge in a systematic, integrated, and holistic manner; and, explaining relationships (McMillan, 2001). Metacognition is most commonly defined as "thinking about thinking" (Livingstone, 1997, p. 1). It involves active control over cognitive processes (Livingstone, 1997; Pintrich, 2002; Rivers, 2001). The process of metacognition occurs as "students become adept at personally monitoring what they are learning, and use what they discover from the monitoring to make adjustments, adaptations, and even major changes in their learning" (WNCP, 2003).

There is some discrepancy among researchers with regard to the use of the terms "cognition" or "metacognition". Some researchers maintain that these terms actually refer to the same process.

Others differentiate between the two (Imel, 2002; Livingstone, 1997; Pintrich, 2002; Rivers, 2001). For example, "Cognitive skills are those needed to perform a task, whereas metacognitive skills are necessary to understand how it was performed" (p. 3).

In assessment as learning processes, acquiring knowledge becomes a process of interaction between the learner and the new material (Earl, 2003; Imel, 2002; Pintrich, 2002; Rivers, 2005; Wilson, 2005). In this way, "students, as active, engaged assessors, can make sense of information, relate it to prior knowledge, and master the skills involved "(Earl, 2003, p. 25). They become actively engaged in the process of making sense, creating meaning, and adapting their thought when additional information is presented. Skills associated with cognition include recalling, understanding, applying, and reasoning (Earl, 2003; Jordan, 2007; Livingstone, 1997; McMillan, 2001; Pintrich, 2002; Rivers, 2001; Trice, 2000). McMillan (2007) refers specifically to six facets of understanding in cognitive processes. These include: explaining, interpreting, applying, perspective-taking, empathizing, and self-knowing. Classroom assessments that attempt to assess these thinking skills are cognitive in nature (Earl, 2003; Jordan, 2007; Livingstone, 1997; McMillan, 2007; Pintrich, 2002; Rivers, 2001; Trice, 2000).

Pintrich (2002) maintains that cognition and metacognition includes knowledge of strategy, task, and person variables. Strategic variables include knowledge about the strategies used in learning, thinking, and problem-solving. Task knowledge includes understanding that certain tasks may be more or less difficult, or that different cognitive strategies may be required to learn. Self-knowledge includes knowledge of one's strengths and weaknesses and their motivation, which includes self-efficacy and interest in the topic at hand. According to him, this self-knowledge is specifically related to the metacognitive aspects of learning. Self-assessment is a critical component-learners actively reflect on what they do and do not know and what course of action they need to

follow. “Learners also activate relevant knowledge about their own strengths and weaknesses pertaining to the task as well as their motivation for completing the task” (Pintrich, 2002).

According to Earl (2003), students become their own best assessors. “At some point, students will need to be self-motivating and be able to bring their talents and knowledge to bear on the decisions and problems that make up their lives” (Earl, 2003, p. 25). Students do not wait for teachers, or other adults, to tell them what is right in assessment as learning (Earl, 2003). Jordan (2007) refers to this process as “cognitive extension” whereby teachers do not supply correct answers, they guide students through the learning process with interactive dialogue. These dialogues between teacher and student focus on the learning process, not on the end product. In essence, “effective assessment empowers students to ask reflective questions and consider a range of strategies for learning and acting” (Earl, 2003, p. 25). Sato et al. (2006) maintain that understanding is strengthens when students describe what they have learned and how they learn through the use of reflection.

Feedback confirms student self-assessment. “Feedback for learning is the process that provides the conceptual link between what students believe to be true and the collective wisdom of the culture as it is captured in the knowledge carried by teachers and in the texts, resources, and so on that are available to them as reference points” (Earl, 2003, p. 89). Feedback encourages effort, engagement, and the use of alternative strategies in gaining further understanding (Earl, 2003). “A major role for teachers in the learning process is to provide the kind of feedback to students that encourages their learning and provides signposts and directions along the way, bringing them closer to independence” (Earl, 2003, p. 90).

Feedback is descriptive in nature explicitly connecting what students think to thoughts they have not considered (Earl, 2003). Feedback “provides students with visible and manageable “next

steps" based on assessment of the work at hand and an image of what "good works looks like" so that they can begin to take the responsibility of self-assessing and self-correcting" (Earl, 2003, p. 90). Finally, Earl (2003) and McMillan (2007) state that feedback is part of the ongoing process of assessment as learning, not something that occurs afterwards. Specifically,

> Teachers use assessment to provide feedback to students about their conceptions and misconceptions; students use their feedback from teachers to adjust their understandings, rethink their ideas, and put their new conceptions forward, leading to another round of feedback and another extension of learning. This process does not happen after the fact, or even once a term. It is part of a continuous conversation between teachers and students and among students (p. 93).

Rubrics are an essential tool in assessment as learning to demonstrate how products might look when they have been completed (Earl, 2003). Rubrics are used to motivate students to achieve higher standards. For example, "having an image of where they are going, how long it takes to get there, and what the stages look like both motivates and provides targets that students can visualize and strive for along the way" (Earl, 2003, p. 95).

Recordkeeping of assessment as learning tasks is individualized (Earl, 2003). Teachers and students collaborate to decide what evidence should be kept to demonstrate learning has occurred (Earl, 2003). "Students routinely reflect on their work and make judgments about how they can capitalize on what they have done already" (Earl, 2003, p. 25). How students perform, in relationship to their peers, becomes irrelevant in assessment as learning. The indicator of success comes from an understanding of the student's own development, improvement, and

evolution from previous tasks (Earl, 2003; McMillan, 2007). This, in turn, enhances motivation for students to learn more (McMillan, 2007).

Assessment as, for, or of learning can provide opportunities for general educators to make changes which enhance learning for students and to make classroom assessment and grading practices more meaningful. It is not the specific purpose that is of concern because classroom assessment practices can fulfill more than one assessment purpose. Even though it may be challenging, teachers can develop assessment tools that create reliable, valid, and meaningful learning opportunities that communicate achievement.

Barriers to Assessment Reform

As mentioned earlier, summative assessment is the most commonly used type of classroom assessment. Formative assessment and assessment as learning practices have become more widely used by classroom teachers as a result of the assessment reform movement (McMillan, 2007). Regardless of the purpose of assessment, the facilitation of learning for each student is the goal. Some of the barriers that may inhibit the use of classroom assessment and grading as tools to improve achievement are: lack of consistency, validity, and meaningfulness in assessment and grading practices; maintaining high standards; misalignment with assessment theory and grading practices, or between teachers and students; institutional pressure to reduce achievement to a single number; learner personality and self-esteem; and lack of resources, inadequate pre-service training, and limited teacher professional development in assessment practices.

The average classroom teacher spends up to half of his or her professional time engaged in some type of assessment, evaluation, or grading activity (Stiggins, 2004). However, research has

demonstrated that teachers do not like to give grades (Baume, Yorke, & Coffey, 2004; Brookhart, 1993; DeBoer, Anderson, & Elfessi, 2007; Green & Emerson, 2007). In addition, "Grading is one of the least liked, least understood and least considered aspects of teaching" (Green & Emerson, 2007, p. 495). Teachers do not enjoy issuing grades to students and they do not necessarily always know how. Grading is difficult, uncomfortable, and teachers are not always well-trained (Allen, 2005; Boretz, 2004; Martinson, 2004; Silva et al., 2005; Stanley & Baines, 2004; Tomlinson, 2005; Wormeli, 2006). Brookhart (1993) maintains that not all of the issues related to grading are the result of poor training.

McMillan (2007) distinguishes between the disadvantages and advantages of several types of grading. Letter grades, using the percentage of correct responses, and issuing either a pass or a fail grade are easy for teachers to implement. However, these grading practices do not give students specific indications of their performance. Letter grades, according to McMillan (2007) are comprised of what he terms a "hodgepodge" of factors that may not be good indicators of achievement. Percentages and pass or fail grades are not specific enough indicators of performance, the differences between close scores are vague, and high percentages do not always equate to mastery performance. Checklists can provide specific feedback, but they are very time-consuming. Standards-based grading is concerned with maintaining high standards for all students based on performance levels. This practice, as well as providing written descriptions of performance, can provide specific feedback. However, according to him, both of these practices are very time-consuming.

O'Connor (2007) refers to grades as *broken* because they can lack consistency, accuracy, and meaning, and they do not always support learning. He believes that grading should be fair and learning should focus on intrinsically motivating students to learn. The goal of grading is to

accurately represent achievement. This is why certain elements should not be considered in determining grades. According to O'Connor (2007), students should not be graded based on their behavior, attendance, group work, or effort. They should not receive bonus marks, nor should they be penalized for work submitted late. Students should not receive zero grades. In order to "fix" broken grades teachers should communicate achievement of standards based on quality works compared to clearly defined standards and learning goals. Grades should be based on the summative assessment of students' most recent achievements, and not on formative processes. Finally, students should be involved in the grading process.

According to Allen (2005) and Harlen (2005), in many cases, grades are the result of teachers' judgments of *non-academic* criteria. Examples of some non-academic grading criteria are: aptitude, effort, improvement, character, neatness, personality, motivation, interest, behavior, comparison to other students, and work habits. Many researchers agree that these factors should not even contribute to a final grade (Allen, 2005; McMillan, 2007; O'Connor, 2007; Stiggins et al. 1989; Tomlinson, 2005; Wormeli, 2006). According to Allen (2005), grades based any non-academic factors do not communicate the truth about a student's academic achievement. In fact, Stiggins et al. (1989) maintain that grades should be solely based on achievement.

Other researchers also caution against certain teacher practices in issuing grades. For example, giving a zero grade to students is useless (McMillan, 2007; O'Connor, 2007; Wormeli, 2006). They maintain that this should not be used because nothing positive can be gained for teachers and students alike from a practice that is neither helpful nor accurate. Wormeli (2006) also opposes using homework as part of a final grade because "homework is a practice, never to be confused with absolute, final declarations of summative mastery" (p. 22).

McMillan (2007) states that non-academic factors may be used in grading, with certain cautions. For example, effort should not be a major part of a student's mark. It should be reported separately. Aptitude, effort, and improvement are motivators in reporting semester grades, only for borderline students. Stiggins et al. (1989) suggest that it is difficult to include non-academic factors, such as effort, attitude, interest, personality, and motivation because there are no clear guidelines that can define or measure these factors.

McMillan (2007) refers to the internal and external constraints that guide teachers' assessment grading practices. He indicates that teachers experience ongoing tension between their desire to maintain their beliefs and values about teaching and learning and policies required by external authorities about these beliefs and values. "Although internal beliefs and values that reflect a desire to enhance student learning are most influential, external pressures cause teachers to engage in certain practices that may not be in the best interests of student learning" (McMillan, 2007, p. 21). Other researchers determined that grades are more a reflection of teachers' characteristics, and not those of students (Allen, 2005; Boretz, 2004; Strong, Davis, & Hawkes, 2004; Tomlinson, 2005). For example, grades may represent "feelings" towards certain students rather than achievement.

Brookhart (1993, 1994) maintains that grades are a reflection of teachers' value-judgments regarding their students. These judgments are difficult to interpret and understand because they are inconsistent, individual, and vary from one teacher to the next. She also is concerned that teachers experience difficulty grading because they struggle between the roles of advocate for students and judges over students' progress. These two roles, according to Brookhart (1993, 1994) are incompatible and, as a result, do not accurately produce grades that reflect achievement. She explains grades in terms of a type of currency that is given in exchange to students for their effort or

hard work. For example, teachers assign higher grades to low-achieving or borderline students because they have made an effort. Thus, a failing grade may become a passing grade. In contrast, average and above average students often get marks that represent exactly what they have earned, with no adjustments for effort or other factors.

McMillan (2001) also determined that teachers often elevate low-achieving students' marks, from a failing to a passing grade, if they have demonstrated some effort. McMillan (2007) believes that reliability and validity in assessment practices is of primary concern. Reliability is concerned with the dependability, consistency, and stability of grades. Validity is primarily concerned with the appropriateness of the inferences, uses, and consequences that result from assessment practices. High-quality classroom assessments need to be technically sound, while providing results that demonstrate and improve learning (McMillan, 2007). Unfortunately, according to McMillan (2001), research has demonstrated that teachers' classroom assessment and grading practices are inconsistent and include a variety of factors, such as attitude, attendance, and ability that do not signify achievement. Allen (2005) and Harlen (2005) are specifically concerned with the reliability and validity of teachers' summative assessments. They maintain that summative assessments are not always a valid means of assessing learning because teachers do not incorporate sound measurement principles that are valid and reliable. According to Allen (2005), grading and assessment practices are the responsibility of individual teachers, and hence, may lack reliability and validity.

Consequently, assessment and grading practices vary widely and sometimes is more a representation of nonacademic factors than academic achievement (Allen, 2005; Zhang & Burry-Stock, 2003). For example, many teachers believe that grades should be a reflection of effort, conduct, and attitude (Allen, 2005). In addition, Sato et al. (2006) found that grades affect student

self-esteem and self-image so some teachers will not give marks below a certain level in order to protect students.

Allen (2005), Brookhart (1993, 1994), McMillan (2007), O'Connor (2007), Stiggins (1989), and Tomlinson (2005) have also indicated that many classroom assessment and grading practices are not representative of what measurement specialists would endorse. For example, there is a great deal of confusion regarding what a grade truly represents (Tomlinson, 2005) and teachers often "try to communicate multiple pieces of information about students that can not possibly be contained within a single academic mark" (Allen, 2005, p. 219). Concern has been raised regarding the degree to which a single number or letter grade can adequately reveal the level of achievement (Allen, 2005; Boretz, 2004; DeLisle, 2005; Grant, 2007; Silva et al., 2005; McMillan, 2007; Munk, & Bursuck, 2005; O'Connor, 2007; Stanley & Baines, 2004; Tomlinson, 2005; Wormeli, 2006). "Such a general mark, by itself, does not indicate what was done correctly or incorrectly" (McMillan, 2007, p.366). Students need to be aware of what the grade represents. In this way, their interpretation can be accurate, appropriate, and helpful (McMillan, 2007). Specifically, students with special needs are at an "increased risk for grades that are low, inaccurate, and lacking in meaning" (Silva et al., 2005) because grades are often attached to non-academic factors.

Stiggins et al. (1989) explain that teachers' grading practices differ from those recommended by measurement specialists for three possible reasons: recommended practices might be more a representation of opinion, rather than fact; recommendations may not realistically reflect the classroom setting; and, teachers may not be aware of recommendations or have any assessment training.

In order to address the concerns of valid and reliable assessment and grading practices, Allen (2005) maintains that grading practices change to reflect as accurately as possible student

achievement. According to him, our grading practices are unreliable, inconsistent, and invalid because time has not been taken to consider these problems. Allen (2005) states that:

> Because grading is something that has been done to each of us during our many years as students, it is hard to change invalid "grading" schema that has become embedded in our minds. Now, as educators often required to grade students, and because of this embedded schema, we often grade students in invalid ways similar to how we were graded (Allen, 2005, p. 218).

According to Davies (2008) and Tomlinson (2005), grading should communicate clear and useful information for enhancing learning. Grades chart the status of students based on clearly stated, content-specific learning criteria and goals. Quality grading focuses on accurately communicating information that is valid regarding student performance. In essence, "a grade should reveal as much as possible about what a student has actually learned and should not be obfuscated with a myriad of factors that serve as barriers to demonstration of key proficiencies" (Tomlinson, 2005, p. 265).

Stanley and Baines (2004) believe that report cards perform a variety of functions that undermine the legitimacy of student grades. These functions include: substantiation for funding; an opportunity to improve public relations between schools and communities; a vehicle used by teachers to increase self-esteem; an opportunity to reward likeability; and, a chance to garner funds for college education. Instead, according to Stanley and Baines (2004), frank assessment of student progress replaces the superfluous, inflationary pressures on grades and allows teachers to offer accurate assessments of students' progress. Secondary teachers also need the power to dismiss students who cannot, or will not, do the work and to have genuine authority over the grades they give. McMillan (2007) believes that teachers also need to be concerned that many students and

parents do not understand what to do with the marks they see on report cards. This means that teachers should supplement their reports cards with additional comments to explain results.

Rieck and Wadsworth (2005) have discovered that many teachers perceive that assessment accommodations for students with special needs lower standards and that assessment is often inappropriately equated solely with pencil and paper tests. Both of these perceptions are incorrect. Instead, teachers need to understand the reasons for their accommodations, the purpose and goals of assessments, and the nature of appropriate accommodations (Cross & Hynes, 1997; Fewster, 2006; Rieck & Wadsworth, 2005). When grades are the result of poor or inadequate assessment practices, the student suffers (Allen, 2005; Boretz, 2004; DeLisle, 2005; Grant, 2007; O'Connor, 2007; Silva et al., 2005; Stanley & Baines, 2004; Tomlinson, 2005; Wormeli, 2006; Zhang & Burry-Stock, 2003).

Stanley and Baines (2004), agree that high standards must be maintained. According to them "secondary education these days seems obsessed with providing all children with the same set of minimal competencies, regardless of individual merit, ability, effort, or lack thereof" (Stanley & Baines, 2004, p. 104). They believe that we need to do away with minimal levels of achievement. Instead, teachers need to have clearly stated learning objectives that link instruction, assessment, and grading, while maintaining high standards. Torrance and Pryor (2001) are concerned with specifying unattainable standards that are beyond the ability of some students.

Another concern with assessment and grading practices is the notion that sometimes a discrepancy between theory and practice may exist. Essentially, it is sometimes difficult to discern whether or not learning occurs as a direct result of assessment processes and whether or not the teachers' classroom assessment and grading practices match with their intentions. Assessment processes may not indicate that learning has occurred nor what the purpose of the assessment

process is. Instructors need to be concerned with asking themselves questions such as: how do we know that our methods resulted in learning? Or, did our actions really affect behaviors? (Boston, 2002; Marks & Maniates, 2003; Taras, 2002; Torrance & Pryor, 2001; Weston, 2004; Wiliam & Black, 1996; Yorke, 2003). In other words, the cause and effect nature of assessment processes is not always easily extrapolated. For example, Wiliam and Black (1996) maintain that learning gaps must successfully be closed in order for formative assessment to truly be formative. Non-threatening questions need to be asked and adequate response time provided in order for the formative process to thrive (Boston, 2002; Torrance & Pryor, 2001; Weston, 2004).

According to Campbell and Collins (2007) and Yorke (2003), sometimes instructors may miss opportunities to engage in assessment practices. Yorke (2003) is also concerned with the fact that learners' and instructors' views of what is occurring are not always aligned. Along with this is Wiliam and Black's (1996) concern that the learning process of a particular student is misinterpreted or misunderstood. Hargreaves et al. (2002) caution that assessment "might extend to endless surveillance, degenerate into narcissistic self-indulgence, or crowd out deeper learning and classroom caring" (Hargreaves et al., 2002, p. 92). They believe that it is important for teachers to cautiously focus on positive outcomes and to guide assessment effectively to avoid their concerns.

The societal pressure for high grades stifles assessment as learning practices. Learners are validated by achieving marks that result in recognition (Allen, 2005; Taras, 2002; Tindal et al., 2003; Wiliam & Black, 1996; Yorke, 2003). Teachers summarize student achievement with a grade because that is what our current educational system demands (Allen, 2005). Learning is captured in a single letter or number that signifies achievement. Assessment tasks result in a grade, which means that all assessments become summative in the end (Allen, 2005). In order to implement a formative or an assessment as learning process, a radical shift in the learning culture would have to occur.

Hall et al. (2004) also note an increased pressure on teachers to prove that students are learning. However, the large-scale comparative assessments that are typically used are not always appropriate for students with special needs. If policy-makers, government leaders, and the public perceive summative assessment as directly related to achievement, then implementing formative assessment and assessment as learning means convincing them first that such implementation would be for the good of students (Allen, 2005).

Another implication for implementing assessment for learning or assessment as learning practices is concerned with the individual personality of the learner and the development of self-esteem. Ecclestone and Pryor (2003) believe that pupils construct their identity as learners based on their interactions with teachers and other students. Assessment practices have profound implications for either aiding or damaging the developing scholarly identity of learners. This, in turn, will shape future learning and, ultimately, future life opportunities. Torrance and Pryor (2001) also add that children be guided early on and carefully through learning and assessment processes because their perceptions about learning and assessment start early. Individual personality differences will shape the way in which learners respond to assessment and grading practices. For example, Yorke (2003) cautions against the development of learned dependence where students rely only on feedback from teachers and rarely go beyond what a teacher suggests. Teachers need to be concerned with whether or not assessment is actually constructive or inhibitory towards higher learning.

The final implication of assessment reform is the lack of resources and teacher training. The process of implementation is complex. Reflection time is needed. Information collected into a large knowledge base will serve teachers in implementation. Adequate professional development and more technological resources assist implementation (Allen, 2005; Campbell & Collins, 2007; Boston, 2002; Burrough et al, 2003; Dekker & Feijs, 2005; Hunt & Pellegrino, 2002; Kavale &

Mostert, 2003; Lukin et al. 2004; Marks & Maniates, 2003; Tindal et al., 2003; Weston, 2004; Yorke, 2001; Ysseldyke, 2005; Zhang & Burry-Stock, 2003).

Campbell and Collins (2007) reviewed textbook topics to determine whether teachers in special education and general education are receiving the necessary information in their coursework in order to conduct appropriate assessments and to engage in valid grading practices in their respective classrooms once they completed their education. They discovered that several topics that they determined to be essential in ensuring assessment literacy among teachers are not included in the top-selling textbooks for teachers. "Moreover, topics appearing inconsistently or missing from textbooks altogether may suggest that such content is optional or not important for teacher preparation" (Campbell & Collins, 2007, p. 17). Stiggins and Chappuis (2005) state that "we weren't given the opportunity to learn to apply principles of assessment for learning during our preparation to teach. It remains the case that colleges of education often fail to include this kind of assessment training in their programs" (Stiggins & Chappuis, 2005, p. 11). Campbell and Collins (2007) and Stiggins and Chappuis (2005) and Lukin et al. (2004) believe that consistency in teacher training with regard to assessment and grading practices is important to student learning. Harlen (2005) and Lukin et al. (2004) maintain that planning and implementing a variety of assessment practices be part of teacher training in colleges of education.

Dekker and Feijs (2005) and Sato et al. (2006) discovered that teachers need time to collaborate with other teachers to discuss assessment and grading practices. This collaboration allows teachers to engage in a process of "exchanging ideas, seeking reasons for actions, and exploring alternative strategies" (Sato et al., 2006, p. 28). Stiggins and Chappuis (2005) and Ysseldyke (2005) believe the changes needed are systemic and encourage investigation of such

changes start to occur now. Teachers have not done an adequate job of responding to what we know will make a difference in the education of our youth.

Summary

This chapter provided an overview of the history, philosophy, and implications for the implementation of inclusive classroom practices and the challenges faced by teachers in assessing and grading students. Three purposes of classroom assessment, either summative, formative, or assessment as learning, and the ways in which classroom assessment and grading practices can be used as a potential tool in improving student achievement, are discussed. Barriers to improving classroom assessment and grading practices include lack of teacher training, resources, and time, the discrepancy between theory and practice, the conflict regarding individual differences between teacher and learner, and the pressure for teachers to demonstrate student achievement.

Incorporation of meaningful, thoughtful, and individual assessment activities into the classroom enhances student learning processes. A variety of effective assessment methods and practices encourages active student learning. Achieving the goals of education means an alignment of instructional techniques with curricular objectives, as well as assessment and grading practices of these. Teachers need to utilize measurement techniques that facilitate student knowledge and acquisition of skills that will result in accurate grades. The most appropriate means for determining what assessment and grading techniques are being used is to ask current teachers what methods they use for assessment and what factors they consider in grading student progress. The next chapter will discuss the methods used to examine the current assessment and grading practices in current secondary classrooms.

Chapter Three

The research method and procedures used to determine the assessment practices utilized by general classroom teachers within inclusive settings are described in this chapter. This chapter includes an overview of the research process, description of the survey instrument, procedures for sample selection and data collection, and the method used to analyze and interpret the data. Considerations for the ethical guidelines and the confidentiality of respondents will also be reviewed.

Research Design and Procedures

This study was mixed-method in nature. A survey instrument, administered to teachers, was used to determine the assessment and grading practices among regular secondary level classroom teachers in inclusive classrooms. This approach was based on two previous studies that researched the assessment and grading practices of teachers (Duncan & Noonan, 2007; McMillan, 2001). Asking teachers about their assessment and grading practices, using a survey instrument, provided information on these practices in secondary classrooms. More participation from a number of teachers assisted in supplying insight into the nature and degree of differences between teachers' practices, which varied considerably. Such information will be valuable to schools and school division personnel who are expected to develop policies and practices for teachers' assessment and grading practices. Additionally, inviting a number of teachers, from a variety of schools, revealed some interesting findings regarding the inclusive schools philosophy.

The data generated from the survey was analyzed and summarized based on common themes and factors. Aggregation of data aided in maintaining the anonymity of the participants. Summarized data was presented to an Interpretive Panel consisting of teachers, other researchers, and measurement specialists. The role of the members of the Interpretive Panel was to consider the summarized data and assist in interpreting, generating possible conclusions, and suggesting elements for future consideration.

Data Collection

A survey instrument entitled *Secondary Teachers' Assessment and Grading Practices* was used to allow general classroom teachers the opportunity to provide information regarding their use of assessment and grading practices within inclusive settings. The survey instrument (Appendix B- Secondary Teachers' Assessment and Grading Practices) was adapted from that used by McMillan (2001) in his research study on secondary teachers' classroom assessment and grading practices. The purpose of his study was to describe secondary teachers' classroom assessment and grading practices in relation to student ability, class size, and grade level. Duncan and Noonan (2007) used a version of McMillan's (2001) survey to study the influence of subject matter, class size, and school size in relationship to teachers' assessment and grading practices.

According to McMillan (2001) the questions from his initial study were drawn from other related questionnaires and from research on teachers' assessment and grading practices. McMillan (2001) identified three constructs from the literature, in teachers' assessment and grading practices. The first includes the factors that teachers consider in assigning grades, such as: effort, improvement, and performance. The second construct is concerned with the specific

assessment tasks that teachers used, such as: tests, essays, and authentic assessments that measure "real life" performance tasks. The final construct focuses on the level of cognitive knowledge targeted in assessment. Examples of cognitive levels of assessment include, but are not exclusive of, recall, application, or reasoning.

Part 1 of the survey asked teachers to consider one of their current courses and specific classes. Teachers indicated the grade level, subject area, number of students, and number of students with special needs. They were also asked to indicate if they had additional training in special education and classroom assessment and the degree to which they felt prepared to meet the challenges of instructing within an inclusive classroom.

Part 2 consisted of closed-form items documenting what teachers had based their grades on in a single semester and specific class. Teachers indicated the extent to which they engaged in certain practices or considered certain factors based on a 6-point Likert scale ranging from responses of (1) *not at all* to (6) *completely*. These constructs were divided into three sections. Section A asked teachers to self-report the factors they considered in determining grades. Section B asked teachers to indicate the types of assessments they used. Section C was specifically focused on the cognitive level engaged by teachers' assessment practices. The approach in separating grading factors from assessment tasks was more favorable when considering the research base of this study. Grading practices and assessment practices were generally defined and considered separately. The difference between cognitive levels of assessments and purposes of assessment match the research indicated in the literature review.

Part 3 consisted of four open-ended questions. Teachers were asked to comment on the most positive aspects of their assessment practices and on their concerns regarding assessment. Additional questions were added pertaining to professional development and the inclusive

schools philosophy. These questions were added to determine the extent to which teachers felt that they were adequately prepared to meet the challenges presented by students with special needs in their classroom. This section also included an opportunity for teachers to be provided with further feedback, regarding the results of the survey, or to ask questions of the researcher.

Setting and Sample

General secondary teachers in all subject areas, grades 9-12, from one large urban school division were asked to participate in the teacher survey. During the first week of June (2008) 389 surveys were distributed to teachers. The participating school division embraces the philosophy of the inclusive schools approach that focuses on including all students in general education classes, regardless of their special needs. Students in inclusive classrooms are removed only if they consume an unreasonable amount of teachers' time or if it would be disruptive to the learning of other students. More recent professional development for principals in this division has focused upon the importance of classroom assessment and grading as an integral component of the assessment reform movement. However, more professional development for teachers and school-based focus on assessment was yet to follow. The results from this study provide useful information for teachers and principals in developing professional development activities regarding assessment and grading in schools with an inclusive philosophy. Based on this, the proposed school division was ideal to gather information about assessment and grading processes and inclusive classrooms philosophy.

After receiving permission from the participating school division Coordinator of Measurement, initial contact was made with school Principals by phone to briefly introduce and explain the study. Principals also received a letter from the Coordinator of Measurement

indicating that permission had been granted for the study to proceed. Principals received copies of the survey and Letters of Invitation (Appendix A- Letter of Invitation). A school representative was responsible for disseminating the survey instrument to his or her teaching staff by placing a copy in each teacher's mailbox. Potential respondents received a copy of the teacher survey attached to a Letter of Invitation describing the purpose and nature of the research study, the approximate time required for completion of the survey, and the name and contact information for the researcher, should participants require more information about the study. As well, participants were informed of the Beh-REB approval. Teachers who chose to complete the survey submitted their completed copy to their school representative within one teaching week. Surveys were assembled in one envelope and retrieved together from each school representative.

Data Analysis

Survey data was summarized according to categories based on subject and grade level in a table format. Variables were represented as percentages and specific numbers of students at each grade level and subject level. Teachers' responses to individual Likert scale items were summarized according to number of responses in each category, the mean response, and the standard deviation for each response.

Initially, an Analysis of Variance (ANOVA) was to be used to determine the effects of subject and grade level in relationship to the factors of teachers' assessment and grading practices and to examine the relationship between assessment and grading practices and additional training in assessment or special education. However, the number of completed surveys was too small to produce any reliable comparisons in this manner.

An Interpretive Panel assisted in analyzing the data. Their role was to consider the summarized responses from classroom teachers and to indicate concerns, interpret relationships, propose conclusions, and to suggest possible areas for future research.

Ethical Considerations

A proposal was submitted to the Behavioral Ethics Research Board (Beh-REB) (Appendix D- Beh- REB Application) for approval of this study. Upon receiving Behavioral Research Ethics Board (Beh-REB) approval for this study, permission was sought from the school division's Coordinator of Measurement, in writing (Appendix C- Letter of Request for Participation), before any research was undertaken.

A summary of the results from the teacher survey will be submitted to participating school Principals or will be available from the student researcher, upon request. Participants were informed at the outset of the maintenance of anonymity of the school division, schools, and individual participants. Data were combined and summarized from all schools. The presentation and analysis of the data were collated based on common factors, themes, and practices, not individual participants, to preserve anonymity. Participants were informed that they can review a summary of the compiled results, either available from their Principal, or from the student researcher.

The following chapter will provide a summary of the data gathered from the survey instrument. Some graphs and charts are included to illustrate the results. A more detailed description of the role, nature, and purpose of the Interpretive Panel is also provided.

Chapter 4

The purpose of this chapter is to describe the results obtained from the survey instrument in relationship to the research questions pertaining to this study. One of the purposes of this study was to determine the classroom assessment and grading practices teachers currently utilize at the secondary level within inclusive classrooms. This aspect was addressed in Part 2 (Sections A and B) of the survey which consisted of closed-form items documenting the criteria used to generate grades on in a single semester and specific class. Another question asked about the cognitive level is most commonly assessed in current classroom assessment and grading practices of secondary teachers. The data generated from Part 2 - Section C assisted in addressing this question through the use of closed form items asking teachers to select the cognitive level most commonly addressed through their assessment practices.

Another purpose of this study was to determine if teachers indicated that they required professional development in assessment and grading and in addressing the needs of a diverse student population. There was no particular section of the survey that specifically addressed this question. However, several areas of it provided interesting information for consideration directly linked to this concern.

The final research question asked if this study could provide rationale for changes to assessment and grading practices within inclusive classrooms. Again, no particular section of the survey instrument particularly addressed this question. However, data from the open-ended questions, the forced-choice response sections, the demographic section, and feedback from the Interpretive Panel provided interesting data and results for further discussion and potential conclusions.

The following sections will overview the specifics of the data-gathering process and the resulting information that was generated from the survey instrument. Some charts and graphs are utilized to aid in illustrating the results.

Data Collection

Data were collected from secondary teachers during the first week of June through the use of a survey instrument (Appendix B). Surveys were distributed to a representative from each collegiate in the school division. These individuals were responsible for dispensing the surveys into regular classroom teachers' mailboxes. A cover letter was attached to each survey indicating the purpose and nature of the study, the ethical considerations, contact information for the researcher and ethics board, when the survey needed to be completed, and to whom it should be returned. Teachers were also informed that their participation was voluntary and that the resulting data would be shared with an Interpretive Panel to assist in interpreting and analyzing the results. Teachers had a teaching week to complete and return the surveys to the designated school representative. Surveys were then collected from the representatives and collated. A total of 389 surveys were administered to ten secondary schools. A total of 106 were completed and returned. This number represents a 27% response rate.

Survey Results

Data from the surveys was entered into a statistical program designed to tabulate and analyze data (SPSS). Results were summarized and compared according to the following categories from the survey instrument: (1) demographic data which compared

the grade and subject level indicated by teachers, the number of students in their class and the number with special needs, the number of teachers who had taken classes in special education and assessment, and the extent to which teachers felt prepared to instruct in an inclusive classroom setting; (2) factors teachers considered in grading such as, academic performance, mastery of learning objectives, effort, attitude, participation, improvement, ability level, work habits and neatness, bonus marks, comparative performance to others from current and past classes, grade distributions, division policies, homework, and the use of zeros; (3) teachers' assessment practices such as assessment primarily designed by themselves or supplied by a publisher, quizzes, objective assessments, essays, performance assessments, major exams, authentic assessments, group projects, and oral presentations; (4) cognitive levels of assessments, specifically, those that measured understanding, application, reasoning, and/ or recall; (5) responses to open-ended questions. The resulting data from these categories will be discussed in the following sections.

Demographic Data.

Teachers were asked to select one grade level and subject area when considering their answers to the questions on the survey. Comparisons of subject and grade level revealed that the greatest number of responses was from teachers at the Grade 12 level (n=42) and from those teaching English (n=31) (see Table 1). Sixteen of the respondents indicated that they were teaching subjects *other* than those specifically listed. Two other categories were added to the resulting data to account for responses that were given that did not fit the given criteria on the survey. One teacher did not select a subject area (*no*

response) and two others indicated that they were teaching more than one grade level in the same class (*multiple grades*).

Table 1

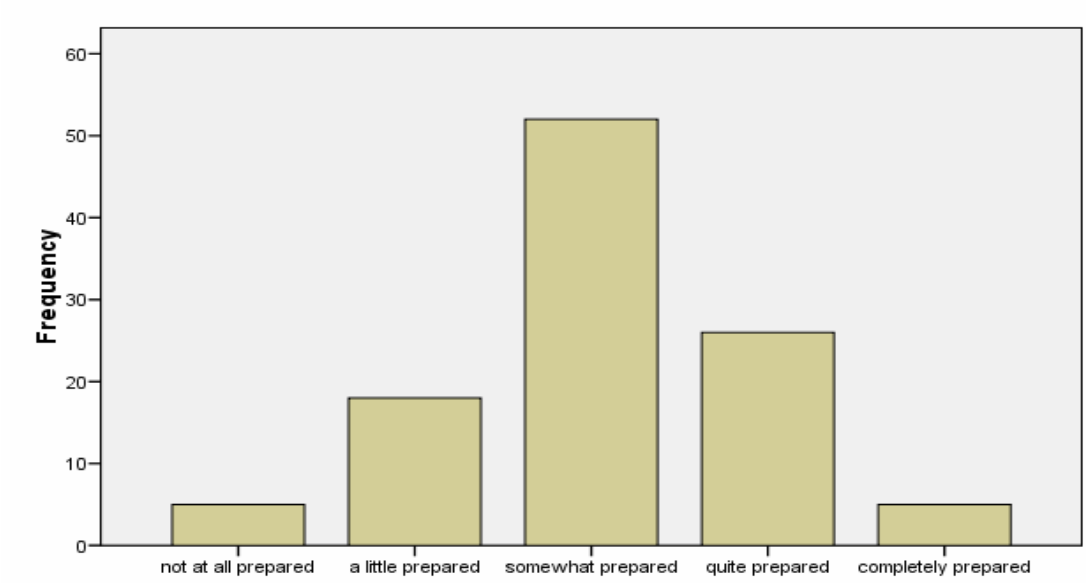
Number of Responses by Grade and Subject

	Math	Science	English	Soc St	Pr Art	Other	No Response	Total
Grade 9	2	1	8	1	1	10	0	23
Grade 10	7	2	7	2	2	4	0	24
Grade 11	3	2	3	2	3	1	1	15
Grade 12	6	7	12	10	5	1	0	42
Multiple Grades	0	1	1	0	0	0	0	2
Total Subjects	18	13	31	15	11	16	1	106

The majority of teachers had 15-25 students in their class (n=38). Very few (n=6) indicated that they taught classes containing more than 35 students. Most teachers (n=77) indicated that fewer than five students in their class had special needs.

Table 2 summarizes teachers' responses to the extent to which they felt prepared to meet the challenges of instructing within an inclusive classroom. Those teachers indicating that they were *quite prepared* to *completely prepared* accounted for 29% (n=31) of the responses. Teachers who indicated that they were *somewhat prepared* represented 49% (n=52) and 22% (n=23) felt that they were *not at all prepared* to *a little prepared.* Of the classroom teachers that responded, 21% (n=22) stated that they had additional training in special education, other than the minimal course requirement for completion of an education degree.

Table 2



Extent to Which Teachers Feel Prepared to Instruct in an Inclusive Classroom

The final question in this section asked teachers to indicate whether they had completed any courses in assessment. Those indicating that they had completed some assessment courses represented 55% (n=58) of the responses. However, 45% (n=48) answered that they had not completed any assessment courses at the post-secondary level.

Factors Used in Determining Grades.

In Part 2 (Section A) of the survey instrument (Items 1-19), teachers were asked to indicate the factors they considered in determining grades, based on a 6-point Likert-type scale. Results were entered into SPSS based on the following values: 0- *no response*; 1- *not at all*; 2- *very little*; 3- *some*; 4- *quite a bit*; 5- *extensively*; 6- *completely*. The *no*

response category was added afterwards to account for those teachers who did not select any of the other choices on the scale for a particular grading practice.

Table 3 shows the frequency, mean, and rank for each practice. The highest ranked practices were: (1) specific learning objectives mastered, (2) academic performance as opposed to other factors, (3) inclusion of zeros for incomplete assignments in the determination of final percentage. The least used practices were: (1) extra credit for non-academic performance; (2) formal or informal policy of percentage of students who may obtain A's, B's, C's, etc; and, (3) grade distributions of other teachers.

The mean scores for the responses in this section varied widely (1.17-4.08). None of the practices listed were used *completely* by every teacher. In addition, teachers did not indicate that any of the practices were *not at all* used. In other words, every practice was used to *some* degree.

Table 3

Factors Used In Determining Grades

	0	1	2	3	4	5	6	Mean	SD	Rank
1. Performance compared to a scale of percentage correct	2	27	14	18	23	20	2	2.95	1.58	10
2. Specific learning objectives mastered	0	2	3	24	39	31	7	4.08	1.03	1
3. Academic performance as opposed to other factors	2	3	13	20	31	35	2	3.77	1.28	2
4. Inclusion of zeros for final percentage	0	14	7	25	27	20	13	3.67	1.51	3
5. Ability levels	1	9	13	28	37	12	6	3.42	1.3	4
6. Effort	1	8	17	26	31	21	2	3.41	1.29	5
7. Graded homework	1	21	15	14	36	18	1	3.14	1.46	7
8. Not- graded homework	1	24	21	25	26	8	1	2.75	1.33	11
9. Attendance and participation	0	20	19	27	23	12	5	3.03	1.43	9
10. Effort, improvement and behaviour	0	14	19	33	26	7	7	3.13	1.35	8
11. Improved performance	0	13	17	24	33	15	4	3.3	1.34	6
12. Work habits and neatness	0	24	29	29	15	9	0	2.58	1.23	12
13. Extra credit for academic performance	2	46	31	18	7	1	1	1.9	1.09	14
14 Performance compared to others	0	53	28	20	2	2	1	1.83	1.07	15
15. Disruptive student performance	2	46	26	23	6	1	2	1.96	1.16	13
16. Extra credit for nonacademic performance	1	70	24	9	2	0	0	1.44	0.74	17
17. Policy of A's, B's, C's that can be administered	1	85	14	4	0	2	0	1.27	0.72	18
18. Performance compared to students from other years	1	68	23	10	2	1	1	1.56	0.99	16
19. Grade distributions of other teachers	1	91	10	3	1	0	0	1.17	0.53	19

Assessment Practices.

The second section of Part 2 (Section B) (Items 20-30) asked teachers to indicate their current assessment practices. Teachers selected from the same set of Likert scale responses as the previous section. The results are displayed in Table 4.

Table 4

Assessment Practices

	0	1	2	3	4	5	6	Mean	SD	Rank
20. Assessments designed primarily by yourself	1	0	0	10	32	41	22	4.67	1.01	1
21. Performance quizzes	1	12	14	42	18	15	4	3.18	1.32	4
22. Objective assessments	1	11	21	35	23	12	3	3.09	1.28	5
23. Essays	1	29	20	21	24	9	2	2.69	1.42	8
24. Performance assessments	1	20	22	30	20	11	2	2.84	1.35	7
25. Projects completed by individuals	1	13	13	26	29	19	5	3.38	1.41	2
26. Major Exams	1	14	15	28	27	20	1	3.23	1.35	3
27. Authentic Assessments	1	12	24	34	18	15	2	3.03	1.3	6
28. Projects completed in groups	2	18	29	37	12	0	5	2.62	1.25	9
29. Assessments provided by publishers	1	44	36	22	2	0	1	1.84	0.9	11
30. Oral presentations	1	35	31	30	6	2	1	2.14	1.09	10

The most highly ranked practices were: (1) assessments primarily designed by yourself, (2) projects completed by individuals, (3) major exams. The least used practices were: (1) projects completed in groups, (2) oral presentations, (3) assessments provided by publishers. The mean scores for this section also varied widely, ranging from 1.84- 4.67. Again, every practice was utilized and no single practice was *completely* used by every

teacher. The *no response* category was also added to this section in order to account for those teachers who did not select a category for an assessment practice.

Cognitive Levels of Assessments.

The final section of Part 2 (Section C) (Items 31-34) asked teachers to indicate the cognitive level of the assessments they currently use. The same 6-point Likert-type scale, as the previous section, was used (see Table 5). Teachers indicated that they most commonly use assessments that measure students' understanding and they least use assessments that measure recall knowledge. The mean scores for this section did not vary to a great degree (2.87- 3.58). Again, the *no response* category had to be added to this section to account for those surveys that were returned with no category selected for certain levels.

Table 5

Cognitive Levels of Assessments

	0	1	2	3	4	5	6	Mean	SD	Rank
31. Understanding	12	2	1	17	50	20	4	3.58	1.54	1
32. Application	12	1	5	25	36	22	5	3.49	1.58	2
33. Reasoning	13	3	6	38	28	15	3	3.15	1.54	3
34. Recall	12	6	11	38	34	4	1	2.87	1.38	4

Open-Ended Responses.

The first question in this section had two parts. The first asked teachers to list the most positive aspects of their assessment and grading practices. Fair, flexible, and

individualized were terms used by 42% (n=45) to describe their assessment and grading practices while 18% (n=19) stated that their practices were practical. Other responses included teachers who cited their years of experience as a positive aspect and those who indicated that their practices were seemingly accurate, frequent, and regular. Some terminology that has been recently introduced to teachers from this division was used in this response. For example, terms like Assessment for Learning, co-constructing, and references to the work of Anne Davies and Ken O'Connor. Other responses that teachers included focused on encouraging students to take risks and on not using assessment and grading as a means of control or power over students.

The second part of the first open-ended question asked teachers to list any areas that they viewed as problems or concerns. Time, lack of resources (books, materials, and staff), the absence of benchmarks or comparisons, and accuracy of grades were some troubling areas for teachers. For example, some teachers indicated that they did not really know for certain if their marks truly reflected student achievement of if another teachers would give a similar mark for the same finished product. Teachers also indicated concern with the lack of student responsibility and the increasing amount of student truancy that they were experiencing in their classrooms. Specifically, some teachers indicated that student did not want to do any work and that they were just "putting in time" and producing work to attain minimal standards in order to pass.

Some teachers questioned why grades needed to be issued to students at all while others expressed concern over their current division's marking software and the challenges that it posed. Again, use of recently acquired terminology allowed teachers to express their frustrations over the use of portfolios, co-constructing, and peer evaluation.

Others indicated that they required more training and resources. Very few teachers specifically wrote that they had not experienced any problems. However, 27% did not answer this question at all (n=29).

Question two of this section asked teachers if they used peer-assessment or self-assessment or any other assessment technique not included on the survey. Of the respondents, 5% (n=5) indicated that they only use peer assessment and 6% (n=6) only use self- assessment. Those that use both peer and self-assessment regularly accounted for 25% (n=27) of the responses. However, 19% (n=20) use both peer and self-assessment very little and 18% (n=19) use neither peer assessment nor self-assessment at all. In addition, 6% (n=6) of teachers responded that they have been doing some peer and self-assessment and they would like to do more. There were 22% (n=23) of the surveys that were returned with no response to this question.

Question three was specific regarding Saskatchewan's mandate of the inclusive schools philosophy and the extent to which teachers have experienced this philosophy, with regard to the grade level and course that they identified earlier in the survey. For a variety of reasons, 20% (n=21) of teachers indicated that they had no answer to this question. Some indicated that it did not apply to their teaching situation while others indicated that all students were welcome. Others did not understand the question because they were confused regarding the meaning of the term "inclusive". Those that did not respond to this question represented 28% (n=30) of the results. However, 4% (n=4) stated that they had not experienced the inclusive philosophy at all. Some teachers used language from the Likert scales used earlier to indicate their response to the open-ended questions in this section. For example, 8% indicated that they had experienced the

inclusive philosophy *very little*, 23% (n=25) had experienced it *to some extent*, 9% (n=10) had experienced it *quite a bit,* and 8% (n=8) had experienced it *extensively*.

The last question on the survey asked teachers to share any general comments or suggestions. Suggestions and comments ranged from teachers indicating that they appreciated the opportunity to reflect on their practices to those who were not at all appreciative of the extra paperwork in June. Specifically, there was more confusion directly relating to the term "inclusive". Others indicated that they were assessing too much or too little. ESL students were mentioned as a particular concern during assessment because of their specific needs directly relating to language barriers. Other teachers indicated that 30-level students did not have any special needs if they were able to achieve enough to progress to the grade 12 level. Other general comments included those from teachers who were genuinely concerned about including all students, assisting students in their growth and development, and sometimes feeling frustrated about the appropriate course of action in assessment and grading processes.

In general, teachers' comments in the open-ended section were thoughtful and concise. Their responses indicated that they had taken the time and effort to make their opinions clear. For example, may teachers provided specific examples to illustrate their concerns and candidly expressed their views. As indicated earlier, not every research question was specifically addressed by the survey instrument. However, considering several sections of responses together has provided some interesting material for future research and discussion to follow in Chapter 5. The following section will provide an overview of the nature, purpose, and role of the Interpretive Panel in general and specifically pertaining to this study.

The Interpretive Panel

The data and results presented in this chapter were shared with a group of professional colleagues representing a variety of levels, disciplines, and experience in education. This group was brought together to analyze and interpret the results from the study and to suggest some possible conclusions and areas for future research. This process was based on research by Noonan (2002) which indicates that collaborative practices in analysis of research data contributes to richer and more meaningful interpretations of results.

The term "Interpretive Panel" is used to describe the collaborative process of using groups of individuals to analyze and interpret data gathered from research studies (Noonan, 2002). Specifically, according to Noonan this process involves reframing the role of the more traditional focus group members to that of active participants in the analysis process in order to further enhance data interpretation. Traditionally, according to Noonan, focus groups were used to define trends and to determine levels of customer satisfaction in marketing research. Current focus group practices include exploring specific topics of interest or developing a deeper understanding, as a collective, around an issue. According to Noonan, focus groups are comprised of randomly selected individuals who possess relevant information regarding the research at hand. Focus groups are used to gather data and may produce troublesome results when tackling controversial issues.

Interpretive panel members are purposefully selected from a pool of participants within a study. The interpretive panel is used to interpret and analyze data after it is gathered and to, hopefully, reach a consensus regarding the results of the study at hand.

Noonan (2002) concluded that this process allows for more experiential conclusions and interpretations, rather than a theoretical focus on resulting data interpretation. In addition, data analysis involves interaction between researchers and data. An Interpretive Panel enriches this interactive process by providing alternate conclusions, important insight, and potential subject matters for future research.

For the purpose of this study, it was decided that a variety of professionals would aid in the interpretation and analysis of the resulting data. Because of the recent focus on assessment as a means to improving teaching and learning, the conditions were suitable for the addition of this stage to the research process. Because of the nature of this study and the climate in which it was performed, the Interpretive Panel assisted in analyzing, interpreting, and providing potential conclusions based on the data from this study.

The Interpretive Panel session began with an overview of the background research directly relating to this study. Panel members were provided the opportunity to ask questions and to clarify any points of uncertainty. They were provided a copy of the survey instrument for reference when considering the results. The results from each question were presented in table or graph format, when possible, to aid in analysis and interpretation. There was some guidance, through specific questioning, that was provided to Interpretive Panel members regarding data analysis. However, panelists were encouraged to and consistently asked to provide any other feedback, insight, or elements

for consideration that occurred to them throughout the process of data interpretation and analysis.

Surprisingly, despite the range of backgrounds and experience of the Interpretive Panel members, there were no points of disagreement or conflicting interpretations to detract from the process. Generally, a panelist would state his/her interpretation and others would agree, add to the conclusion, or state additional points to consider. At no point was there need to redirect the discussion because of conflicting ideas or disagreement between panelists. At the conclusion of the session, panelists initiated a discussion of the process in which they had engaged. Their feedback indicated that they had appreciated the opportunity to engage in discussion with other colleagues to consider the presented research and results from this study. They valued the process and concluded that they felt that their opinions were valued and that they had gained interesting insight regarding the assessment practices of the teachers in this division. Feedback from the interpretive panel was summarized and incorporated into the discussion in Chapter 5.

Chapter 5

The final chapter considers this study in terms of how adequately the results have addressed the research questions from Chapter 1. Some of the sections of the survey instrument directly addressed the purpose of this study while other sections indirectly allowed for potential conclusions related to the research questions. The results from this study will be compared to results from two other previous studies that utilized a similar survey instrument. The fact that 27% of the staff from ten secondary schools in this division responded to the survey during the busy month of June was commendable. However, when considering reliability and validity, the low number of responses to the survey instrument limited the options for comparisons between results and generalizations among teachers' assessment and grading practices. Despite this concern, there are still some key themes, items for consideration, and meaningful conclusions that emerged from teachers' responses and from the discussion, analysis, and interpretation provided by the Interpretive Panel.

Teachers' Assessment and Grading Practices

One of the research questions from this study was to determine the current assessment and grading practices of secondary teachers in this division. As described in Chapter 2, assessment practices are the means by which teachers gather evidence of students' learning. Grading factors are those aspects that teachers consider in describing achievement, using a letter or number, to represent what students have learned. The results of this survey revealed that teachers utilize every assessment practice and consider

every grading factor listed on the survey instrument. This illustrates the fact that teachers in this division have diverse and varied assessment and grading practices.

Results from earlier studies conducted by Duncan and Noonan (2007) and McMillan (2001) did not specifically focus on inclusive classrooms. However, the closed-response items on teachers' assessment practices, the factors considered in assigning grades, and the cognitive levels measured by teachers' assessments were the same in the survey from Duncan and Noonan (2007), McMillan (2001), and the current study. Duncan and Noonan (2007) surveyed 66 schools and received responses from 513 secondary teachers (grades 9-12). McMillan (2001) surveyed 69 schools and received feedback from 1,483 teachers from middle and high schools (grades 6-12). Based on the number of teacher responses, both studies were able to compare differences between schools, class sizes, and subject areas. This study does not consider how these aspects affect teachers' assessment and grading practices.

Not every assessment practice and grading factor included in Duncan and Noonan (2007), McMillan (2001), and the current study is endorsed by assessment theorists, as cited earlier. For example, according to this study and to Duncan and Noonan (2007), the most common assessment practice is for teachers to utilize assessment tools that they have created themselves. Assessment theorists have raised concerns over the degree of reliability and validity of teacher-made assessments because they do not always measure accurately what they are intended to measure. This practice may be more of an indication of the lack of resources available to teachers. Specifically, although curriculum guides exist, they are simply guides to the material that teachers must cover. In addition, there are no specific or set assessment tools directly pertaining to the required material that all

teachers can, or should, utilize. This contributes to lack of consistency between divisions, schools, classrooms, and even teachers instructing in the same areas within the same schools. In fact, according to the respondents from this study, the least used practice is to utilize assessment tools provided by publishers or supplied to teachers from an external source.

In order to increase reliability and validity in assessment and grading, curriculum would have to be strictly arranged for teachers and assessment tools would have to be the same for all teachers in the same subject and grade levels across the province. This would raise concerns for students with special needs because the ability to be flexible and to meet individual needs is of primary importance in enhancing learning and academic success. Thus, education would be faced with the choice of either having rigid, set curriculum with standardized measurement tools, or flexible curriculum and assessment and grading practices, created by individual teachers, that may not be reliable and valid. The second alternative would fit with best practices to meet the needs of students with special needs. However, it is also important to have teachers highly trained in effective assessment practices. This would ensure that teachers' own created assessment tools would be comprised of the elements that assessment theorists would regard as those that are essential in assessing and grading students. This may be an indication of the need for more professional development for teachers in assessment and grading practices so that they can create their own assessment tools that are reliable and valid.

Assessment theorists, such as those cited earlier, do not endorse the consideration of certain factors in issuing final grades to students. An example of a practice that is not supported is the use of zeros in calculating a final grade. According to Duncan and

Noonan (2007) and McMillan (2001), the use of zeros in calculating final grades is the most-considered factor used by teachers. Teachers in this division indicated that this practice was third on their list of factors they consider in issuing student grades. For the teachers in this study, this specific example may be more an indication of the lack of ability to exercise any other option because of the computer marking software utilized by this division. Teachers are required to give students a grade when a course has been completed. This means that teachers must fill in the blanks on their marking template with zeros to account for missing assignments. Perhaps if teachers in this division had alternatives to issuing a zero, this practice would cease to affect students' final grades. A more creative option for teachers would be to allow them to issue students an *incomplete* or *no mark* so that students could be given more time to complete a credit. This practice would allow students with special needs the opportunity to complete their work and to demonstrate their achievement.

The use of other non-achievement factors in the issuing of final grades to students may actually be more an indication of teachers' desire to assist students who are experiencing difficulty. As noted in Chapter 3, research of teachers' assessment and grading practices revealed that teachers often assigned higher grades to struggling students if they felt that they had made an effort to do well. In contrast, capable students receive grades that are not inflated when their effort is considered. Duncan and Noonan (2007) and McMillan (2001) noted a similar finding in their studies. In this survey, teachers indicated that they are concerned with students' achievement. Teachers want their students to do well. Therefore, characteristics like effort, improvement, behavior,

and attitude are probably used as benchmarks to assist students with special needs to be successful.

On the other hand, the survey also indicated that teachers most often assess students based on their ability to demonstrate that they have mastered the learning objectives and that they have performed well academically. Assessment reform theorists would sanction the practice to use mastery of learning objectives as a good grading practice. According to Duncan and Noonan (2007), mastery of learning objectives was ranked second. McMillan (2001) indicated that the teachers in his study ranked mastery of learning objectives thirteenth. The difference between these three studies, regarding the focus on mastery of learning objectives, could be attributed to improvements in assessment practices over time. Teachers have learned that their assessments should be based on the learning objectives that they have established before teaching occurs and not on other factors that do not demonstrate achievement.

Over half (56%) of the surveyed teachers indicated that they had taken a course in assessment. This raises some concerns. One should assume that all teachers would have taken a course in assessment in order to complete an education degree because teachers are required to assess students as a fundamental component of teaching. However, the fact that so many indicated that they had no training is assessment matches with the researchers who state that teachers are typically poorly trained in the area of assessment. They may lack adequate training, textbooks, or report that they do not feel comfortable assigning grades to students. Caution must be taken with this conclusion. Again, there could have been some misperceptions or misunderstandings regarding the question on the survey. For example, teachers may have received training in assessment throughout their

coursework and not just in one specific assessment course entitled as such. The question on the survey did not allow for this elaboration and may have inadvertently under-reported teacher training in assessment. Concerns over appropriate training could be addressed by speaking to teachers and asking them specifically about their educational background and their perceptions about teacher education relating to assessment and grading.

Cognitive Levels of Assessments

The second research question of this study was concerned with determining the cognitive levels of assessments. Teachers in this study provided the same response as those in Duncan and Noonan's (2007) study. They indicated that they measure student understanding, application, reasoning, and recall knowledge (in this order). However, the mean scores between these results did not vary to a great degree (2.87-3.58). The difference was even less in Duncan and Noonan's (2007) research (3.71- 4.08). This indicates that there is not a great difference between the amount of recall knowledge that is being assessed, as compared to the understanding and application of that knowledge. This is of particular importance to students with special needs because teachers need to encourage understanding in order to ensure that the skills learned in school will be transferred and applied to tasks encountered in the future. Dependence on recall, with no real understanding, will not assist students with special needs when they are faced with troubling situations in the future. It will not suffice to learn isolated facts with no understanding. Students with specials needs should be educated so that they understand why and not that they have to remember what to do. Earlier research scrutinizes teachers'

reliability and validity when assessing students. This may be an indication of the need for more professional development in this area to ensure that teachers are accurately measuring the cognitive level that they are intending to target and that their assessments match the skills that are required to be successful.

Professional Development and Diversity

Despite the fact that this study sought to determine whether teachers indicate that they require professional development, there was no specific section of the survey instrument that asked teachers if they felt the need for more professional development in instructing students with special needs, or in assessment and grading practices. With regard to professional development, some areas of concern have already been highlighted in earlier conclusions in this chapter. In addition, some teachers specifically stated that they require more professional development in the open-ended section of the survey, even though they were not specifically asked this question.

As noted earlier, all practices and factors listed on the survey instrument are used to some degree, even though not all of these practices and factors are those that are endorsed by assessment theorists. Duncan and Noonan (2007) concluded the same. Some of the results from this study revealed incongruity in responses that may indicate that teachers in this division are prime candidates to receive more information about addressing the needs of a diverse population or exploring their current assessment and grading practices. For example, many teachers indicated that they had tried some different assessment techniques with varying degrees of success. The fact that teachers are already venturing out on their own and exploring different practices is indication that

they are ready to try some new assessment practices and grading methods. It would be remiss not to take advantage of this explorative culture, with regard to assessment and grading. For example, the number of teachers that specifically indicated they are doing some peer and self-assessment, or that they have tried it and it does not work, is indication that teachers are willing to try new tools on their own. The desire to experiment with grading and assessment practices is indication that the opportunity has arrived for such work to occur.

Another aspect of the results that demands attention is the fact that the largest number of responses to the survey were from senior-level English teachers. Duncan and Noonan (2007) had similar feedback. McMillan (2001) also received the greatest number of responses from English teachers. Specific to this study, this is partly because there are more English teachers than any others in this division. This could also be because English, as a subject area, lends itself more readily to a variety of assessment practices, as opposed to math, for example. Senior-level teachers are also commonly those with the most experience and training. Their relative comfort-level contributes to the option to be more creative. They are able to be more flexible, and therefore, are more willing to share their experiences because they have more information to share. Perhaps this illustrates another opportunity for professional development. If senior-level English teachers are those who are most comfortable with a variety of assessment practices, the time may have come to introduce different means of assessment at other levels and in other subjects. This may also reveal some interesting differences between the assessment and grading practices of teachers in other subject areas. Perhaps there are other means of assessing and grading that have not been considered by English teachers.

The definitions of "inclusive education" and "students with special needs" were both sources of confusion for teachers and frustration for the analysis of the responses to the open-ended questions from the survey. Research indicates that teachers do not feel competent in assessing students with special needs nor do they understand the culture of an inclusive classroom. Perhaps there is more of a divide between teachers with specific training in special education and regular classroom educators. However, in this case, it was probably more an indication of the struggle to adequately describe to teachers what the definitions of these two terms were for the purposes of this study. For example, it was troublesome to accurately describe the background research, with regard to the inclusive philosophy and students with special needs, in a short survey. Therefore, it was difficult for teachers to understand and to provide meaningful responses. These terms have been used in many forums in education, with varying definitions and purposes. In order for teachers to understand the definitions, for the purposes of this study, they would have had to have read Chapter 2 of this document before completing the survey. In addition, to compound the confusion, the open-ended question that asked teachers to indicate the degree to which they had experienced the inclusive philosophy was poorly worded on the survey. More time for communication and discussion on the topic of the inclusive classroom and students with special needs is warranted.

Even though teachers did not seem to understand the background research and definitions, this lack of understanding did not affect their stated desire to teach all students. For example, teachers did not express that they had experienced the inclusive classroom the way it is described in this study. They repeatedly expressed the desire to teach all students, to make every student feel welcome, and to utilize a variety of

techniques to meet the needs of the students in their classrooms. These are necessary components of good assessment and grading practices aimed at meeting the needs of students with special needs. In effect, teachers are actually being inclusive of students with special needs even though they might not use the same terminology or descriptors used in this study.

The willingness of teachers in this division to work with all students may have assuaged the barriers and challenges associated with instructing students with special needs. This study indicates that teachers do not need to focus on categorizing students according to their special needs, they teach without labels. By including all students in the regular classroom, it may have lessened the perception that instructing students with special needs requires special training or expertise. Specifically, there were several (n=16) surveys indicating that teachers taught in areas *other* than the five subject options listed. This may be an indication of some unique classroom arrangements that are challenging teachers to meet the needs of a diverse population of students, even though they may not express or describe the situation as such. In addition, there were comments from teachers that ESL students were not students with special needs and that students did not have specials needs if they were able to be promoted to senior level classes. These results also illustrate the willingness of teachers to accept whatever students end up in their classrooms. They afford little attention or preoccupation with differences, or other aspects that may be regarded as obstacles to teaching and learning.

Research on inclusive classrooms has considered the potential negative impact for students with special needs within a regular academic setting. However, if teachers are developing unique, flexible, and individual assessments for all students it does not matter

that some students are those with special needs. All students should be challenged to arrive at a learning destination by following a course of action that is exclusive. Individual differences should not matter with teaching professionals that are experts in assessment and grading practices. Teachers can use what they learn through collaboration and professional development and then adapt, fine tune, and develop instruction that will work for all students. This research has already revealed that teachers' practices are diverse and varied. What teachers need to do is refine and extend their current best practices to meet the need of all students. It follows that assessment and grading should be as diverse as the student population surfacing in regular classrooms.

Future Research

Further exploration of teachers' assessment and grading practices is essential when considering the current climate of emphasis on classroom assessment and grading as a means to enhancing learning for all students. Although the number of responses did not allow for specific comparisons between various components of the survey, there are areas that may reveal interesting results if given further attention and study.

The relationship between subject area and assessment and grading practices may reveal interesting differences between teachers in humanities and social sciences, math, and practical and applied arts. An assumption might be that the nature of the subject areas and delivery should also present some differences in assessment and grading practices.

Studying the effect among classroom size and school size and assessment and grading practices, with special attention to students with special needs, may result in interesting data. For example, there may or may not be a difference between the

achievement level of students in a larger class size, depending upon the assessment and grading practices of the classroom teacher. Good assessment practices may be more of a component of student success than environment or other classroom conditions.

A future study could also consider the relationship between the number of years of teaching experience and assessment and grading practices. More experienced teachers may have a variety of practices that they have used, or perhaps they default to those practices that they have consistently used and have found successful. Their comfort level may limit or enhance their desire to delve into new assessment and grading practices. New teachers may lack experience in assessment and grading. However, they may have also been recently exposed to the latest assessment and grading research. This may result in a better understanding of how to use effectively assessment and grading to enhance learning for all students.

Specific attention to the role of teachers and their facilitation of learning for students with a variety of special needs within a regular classroom setting will become an increasing concern for all teachers because of the range of social, cultural, economic, familial, and personal differences between students within our society. In particular, the use of appropriate assessment and grading techniques to promote assessment for learning for all students will need to be the focus for future professional development. As students in regular classroom settings become more and more diverse, because of the diversity of our general population, teachers will need to implement more varied, rigorous, and valid assessments to ensure that all students achieve success and to promote life-long learning. On the other hand, it would be interesting to compare the assessment and grading practices utilized by teachers in special programs, as opposed to those teachers who are

educators in regular classroom settings, to determine whether there are any differences between their relative assessment and grading practices.

Collaboration is an essential element of educating students with special needs. One could argue that collaboration is also a crucial component of implementing appropriate assessment and grading practices. The potential for teachers to develop more reliable, valid, and individual assessment techniques can be realized by allowing teachers the opportunity to interact, to share their stories of failures and successes, and to invent possible assessment tools to meet the needs of all students. Students, parents, administrators, and teachers are part of this collaborative process. Future studies could explore the possibilities for all stakeholders to be meaningfully involved in student assessment and grading.

Exploring the differences in responses to this survey instrument with the teachers in this division once more professional development in assessment has taken place may reveal changed is assessment practices, consideration of grading factors, and cognitive levels of assessments. So far, much of the professional development in this division has occurred for administrators and a smaller group of interested teaching staff representing each school. The results from this study have revealed that teachers are in a favorable position to receive more professional development in assessment and grading and in addressing the needs of a more diverse student population. Once they have received more professional development in these areas, the results from a similar study may be different. There may also be a better response rate because teachers may be more inclined to respond to a survey that is based on a recent focus for professional development. Professional development may also alleviate the dislike for having to assess students.

They may feel more comfortable in sharing their responses once they have been given the opportunity to gain exposure to research in well-founded assessment and grading practices.

Further research with the teachers from this division in an attempt to alleviate the confusion over the definitions of inclusion and students with special needs may be beneficial. This could be done through a focus group of teachers who participated in the initial study and responded to the survey. It could be achieved by interviewing some of the teachers who completed the survey and asking them for further clarification of their responses. Then their responses could also be compared to results from teachers in special programs to determine whether there are any real differences between the assessment and grading practices of regular classroom teachers and those in special programs.

Conclusions

The relatively low number of completed surveys (27%) limited the specific areas for comparison for this study. The results reported highlighted some points of interest for future research and further exploration of teachers' assessment and grading practices, with specific reference to students with special needs. This study provided a glimpse into the current assessment and grading practices of the teachers in this division. It also provided some information related to teachers' experiences in relationship to meeting the needs of a diverse student population. Despite the challenges posed by administering a survey instrument to a large group of teaching professionals, this study has provided data to move forward with some professional development opportunities for teachers and

further research in assessment and grading, with particular focus on students with special needs in inclusive classrooms. If classroom assessment is the key to enhancing learning for all students, it follows that teachers should be richly educated in appropriate assessment and grading practices.

References

Adams, T. L. (1998). Alternative assessment in elementary school mathematics. *Childhood Education, 74(4),* 220-224.

Allen, J. (2005). Grades as valid measures of academic achievement of classroom learning. *The Clearing House, 78(5),* 218-223.

Ananda, S. M., Rabinowitz, S. N., Carlos, L., & Yamashiro, K. (1995). *Skills for tomorrow's workforce.* Retrieved November 23, 2007, from http://www.wested.org/onlinepubs/workforce/workforce.htm

Angelides, P. (2005). The missing piece of the puzzle called 'provision of equal participation in teaching and learning'(?). *The International Journal of Special Education*, *20(2)*, 32-35.

Assessment Reform Group. (2002). *Assessment for learning: Research based principles to guide classroom practice*. Retrieved July 14, 2007, from http://www. assessment-reform-group.org.uk

Autism Services. (2007). *What is autism?* Retrieved October 31, 2007, from http://www. autismservices.ca/images/autismserviceshead.gif

Baker, E., Wang, M., & Walberg, H. (1995). The effects of inclusion on learning. *Educational Leadership, 52(4),* 33-35.

Baume, D., Yorke, M., & Coffey, M. (2004). What is happening when we assess, and how can we use our understanding of this to improve assessment? *Assessment & Evaluation in Higher Education, 29(4),* 451-480.

Black, P., & Wiliam, D. (1998). Inside the black box. *Phi Delta Kappan*, 80(2), 139-148.

Boretz, E. (2004). Grade inflation and the myth of student consumerism. *College*

Teaching, 52(2), 42-47.

Boston, C. (2002). *The concept of formative assessment* (Report No. EDO-TM-02-06). College Park, MD: ERIC Clearinghouse on Assessment and Evaluation. (ERIC Document Reproduction Service No. ED470206)

Brookhart, S. M. (1993). Teachers' grading practices: Meaning and values. *Journal of Educational Measurement, 30(2),* 123-142.

Brookhart, S. M. (1994). Teachers' grading: Practice and theory. *Applied Measurement in Education, 7(3),* 279-301.

Brookhart, S. M., Andolina, M., Zuza, M., & Furman, R. (2004). Minute math: An action research study of student self-assessment. *Educational Studies in Mathematics*, 57, 213-227.

Browder, D. M., Spooner, F., Algozzine, R., Ahlgrim-Delzell, L., Flowers, C, & Karvonen, M. (2003). What we know and need to know about alternate assessment. *Exceptional Children, 70(1)*, 45-61.

Brown, W. (2001). Social, educational, and political complexities of standard setting, In G. Cizek (Ed.), *Setting performance standards* (pp. 373-385). London: Lawrence Erlbaum Associates, Publishers.

Bruns, D. A., Mogharreban, C. C. (2007). The gap between beliefs and practices: Early childhood practitioners' perceptions about inclusion. *Journal of Research in Childhood Education, 3,* 229-234.

Burrough, L. A., Beaumont, L., Schaller, D., & Cannon, E. (2003). A rolling evaluation gathers no moss. *New Directions for Teaching and Learning, 33,* 45-57.

Campbell, C., & Collins, V. L. (2007). Identifying essential topics in general and special education introductory assessment textbooks. *Educational Measurement, Issues and Practice 26,* 9-18.

Canadian Association for Community Living (CACL) (2004, November). *National summit on inclusive education*. Ottawa, ON: Author. Retrieved October15, 2007, from http:// www. inclusiveeducation.ca/documents/ROEHER-STATE-OF-2005.pdf

Canadian Teachers' Federation Conference (2005). *Building inclusive schools: A search for solutions.* Conference Report from the CTFC Annual Conference November 17-19, 2005, Ottawa, ON: Author.

Coburn, C. (2003). Rethinking scale: Moving beyond numbers to deep and lasting change. *Educational Researcher, 32,* 3-12.

Communication Disorders (2000). *What is a Language Impairment?* Retrieved October 31, 2007, fromhttp://www.ed.gov.nl.ca/edu/dept/pdf/comm_disorder/Section1.

Cross, P. (1990, June). *Streams of thought about assessment*. Symposium conducted at the 15th Annual AAHE Assessment Forum, Washington, DC.

Cross, L., & Hynes, M. C. (1997). Assessing mathematics learning for students with learning differences. *Arithmetic Teacher, 41(7),* 371-377.

Cruieiro, P. A., & Morgan, R. L. (2006). The rural principal's role with consideration for special education. *Education, 126,* 569-579.

Darling-Hammond, L. (1994). Performance-based assessment and educational equity. *Harvard Educational Review, 64,* 5-30.

Davies, A., Herbst-Luedtke, S., & Reynolds, B. (2008). *Leading the way to making classroom assessment work*. Courtenay, BC: Connections Publishing Inc.

Day, C. F. (1985). *Educating exceptional children*. Ontario: Nelson Canada.

DeBoer, B. V., Anderson, D. M., & Elfessi, A. M. (2007). Grading styles and instructor attitudes. *College Teaching, 55(2),* 57-68.

Dekker, T., & Feijs, E. (2005). Scaling up strategies for change: Change in formative assessment practices. *Assessment in Education, 12(3)*, 237-254.

Deno, E. (1994). Special education as developmental capital revisited. *Journal of Special Education, 27(4),* 375-393.

Deno, S., & Foegen, A. (1996). Commentary: Facing the realities of inclusion for students with mild disabilities. *Journal of Special Education, 30,* 345-358.

Deno, S., Fuchs, L., Marston, D., & Shin, J. (2001). Using curriculum-based measurements to establish growth standards for students with learning disabilities. *School Psychology Review, 30,* 507-525.

Department of Justice Canada. (n.d.). Canadian charter of rights and freedoms. Retrieved July 17, 2007, from http://laws.justice.gc.ca/en/Charter/index.html

Dews, N., & Gollop, S. (2003, July). Quality statement on assessment practice. *CEA@Islington*, *Issue 2.* Retrieved July 17, 2007, from www.aaia.org.uk

Downing, J. (2005). *Teaching literacy skills to students with significant disabilities: Strategies for the k-12 inclusive classroom.* California: Corwin Press.

Dukes, C., & Lamar-Dukes, P. (2006). Special education: An integral part of small schools in high schools. *High School Journal, 89,* 1-9.

Duncan, R., & Noonan, B. (2007). Factors affecting teachers' grading practices. *Alberta Journal of Educational Measurement, 53(1),* 1-21.

Ecclestone, K. & Pryor, J. (2003). "Learning careers" or "assessment careers?" The impact of assessment systems on learning. *British Educational Research Journal, 29*, 471-488.

Edmunds, A. L. (2003). Preparing canadian teachers for inclusion. *Exceptionality Education Canada, 13,* 5-6.

Erickson, R., Ysseldyke, J., Thurlow, M., & Elliot, J. (1998). Inclusive assessments and accountability systems: Tools of the trade in educational reform. *Teaching Exceptional Children, 31(2),* 4-9.

Espin, C., & Deno, S. (1998). Individualized education programs in resource and inclusive settings: How "individualized" are they? *Journal of Special Education, 32,* 164-175.

Etscheldt, S. (2006). Lease restrictive and natural environments for young children with disabilities: A legal analysis of issues. *Topics in Early Childhood Special Education*, *26,* 167-178.

Fewster, S. (2006). Inclusion: Making education decisions for all students. *Special Education Association of British Columbia*. Retrieved July 5, 2007, from http://bctf.ca/SEA/Inclusion.htm

Flowers, C., Delzell, L., Browder, D., & Spooner, F. (2005). Teachers' perceptions of alternate assessments. *Research & Practice for Persons with Severe Disabilities, 30,* 81-92.

Fore, C., Burke, M. D., Martin, C. (2006). Curriculum-based measurement: An emerging alternative to traditional assessment for African American children and youth. *Journal of Negro Education, 75,* 16-24.

Fuchs, D., & Fuchs, L. (1993). *Inclusive schools movement and the radicalization of school reform* (Report No. EC302618). Bethesda, MD: National Inst. of Child Health and Human Development (NIH). (ERIC Document Reproduction Service No. ED364046)

Fuchs, D., & Fuchs, L. (1994). Sometimes separate is better. *Educational Leadership*, *52,* 22-28.

Fuchs, L., & Fuchs, D. (1991). Curriculum-based measurement. *Preventing School Failure, 35,* 6-12.

Fuchs, L., & Fuchs, D. (1993). Accountability, instructional planning, and curriculum-based measurement standards for fudging progress within cbm systems. *School Psychology Review, 22,* 27-49.

Fuchs, L., & Fuchs, D. (1998). General educators' instructional adaptation for students with learning disabilities. *Learning Disability Quarterly, 21,* 23-33.

Fuchs, L., Fuchs, D., & Capizzi, A. (2005). Identifying appropriate test accommodations for students with learning disabilities. *Focus on Exceptional Children, 37,* 8p.

Fuchs, L., Deno, S., & Mirkin, P. (1984). The effects of frequent curriculum-based measurement and evaluation on pedagogy, student achievement, and student awareness of learning. *American Educational Research Journal, 21,* 449-460.

Gardner, J. (2007). Teachers' summative assessment of students' learning. In A. Davies & K. Busick (Eds.),*What's working in high schools* (pp. 96-105). Canada: Building Connections Publishing Inc.

Gong, B., & Marion, S. (2006). *Dealing with flexibility in assessments for students with significant cognitive disabilities* (Synthesis Report 60). Minneapolis, MN: University of Minnesota, National Center on Educational Outcomes.

Grant, G. (2007). Grades as information. *Economics of Education Review, 26*, 201-214.

Green, K. H., & Emerson, A. (2007). A new framework for grading. *Assessment & Evaluation In Higher Education, 32(4),* 495-511.

Grobe, W., & McCall, D. (2004). Valid uses of students testing as part of authentic comprehensive student assessment, school reports, and school system accountability: A statement of concern from the international confederation of principals. *Educational Horizons, 82,* 131-142.

Gulikers, J. (2004). A five-dimensional framework for authentic assessment. *Educational Technology Research & Design, 52,* 67-86.

Guskey, T. (2003). How classroom assessments improve learning. *Educational Leadership*, *2*, 7-11.

Hall, K., Collins, J., Benjamin, S., Nind, M., & Sheehy, K. (2004). SATurated models of pupildom: Assessment and inclusion/exclusion. *British Educational Research Journal*, *30(6),* 801-816.

Hargreaves, A., Earl, L., & Schmidt, M. (2002). Perspectives on alternative assessment reform. *American Educational Research Journal, 39(1),* 69-95.

Harlen, W. (2005). Trusting teachers' judgment: Research evidence of the reliability and validity of teachers' assessment used for summative purposes. *Research Papers in Education, 20(3),* 245-270.

Hendrick- Keefe, C. (1996). *Label-free learning: Supporting learners with disabilities*. Maine: Stenhouse Publishers.

Hodges, W. J., Lamb, P., Brown, M. H., & Foy, D. S. (2005). Assessment for all. *Science Scope, 2005,* 44-45.

Hodkinson, A. (2005). Conceptions and misconceptions of inclusive education: A critical examination of final-year teacher trainees' knowledge and understanding of inclusion. *Research in Education, 73,* 15-30.

Hughes, S. (1993). What is alternative/authentic assessment and how does it impact special education? *Educational Horizons*, *72(1),* 28-35.

Hunt, E. & Pellegrino, J. W. (2002). Issues, examples, and challenges in formative assessment. *New Directions for Teaching and Learning, 89,* 73-85.

Hutchings, P. (1990, June). *Assessment and the way we work.* Symposium conducted at the 15th Annual AAHE Assessment Forum, Washington, DC.

Imel, S. (2002). Metacognitive skills for adult learning. Trends and issues alert. *ERIC Clearinghouse, 39, 3*-4.

James, M., & Pedder, D. (2006). Beyond method: Assessment and learning practices and values. *The Curriculum Journal, 17(2),* 109-138.

Jordan, A. (2007). *Introduction to inclusive education*. Mississauga, ON: John Wiley and Sons Canada Ltd.

Kavale, K. A., & Mostert, M. P. (2003). River of ideology, islands of evidence. *Exceptionality*, *11(4),* 191-208.

Kelly, F., Trider, D., & Stoness (2001). Fair assessment of student achievement. *The CAP Journal, 9(3),* 30-31.

Kerzner-Lipsky, D. (2003). The coexistence of high standards and inclusion. *School Administrator, 60,* 32-38.

Kerzner- Lipsky, D. (2005). Are we there yet? *Learning Disability Quarterly, 28,* 2p.

Kerzner-Lipsky, D., & Gartner, A. (1994, December). Inclusive education and school restructuring. *Viewpoints, 120*. Retrieved September 4, 2007, from http://www. eri.ed.gov/ERICWebPortal/custom/portlets/recordDetails/detailmini.

Kerzner-Lipsky, D., & Gartner, A. (1995, Spring). The evaluation of inclusive education programs. *NCERI Bulletin, 2(2).* Retrieved September 4, 2007, from http:// www. eric.ed.gov/ERICWebPortal/custom/portlets/recordDetails/detailmini.

King, B., Schroeder, J., & Chawszczawski, D. (2001, December). *Authentic assessment and student performance in inclusive schools* (Research Institute on Secondary Reform (RISER) for Youth with Disabilities Brief No.ED467479). Wisconsin: University of Madison.

King-Sears, M., Burgess, M., & Lawson, T. (1999). Applying Curriculum-based assessment in inclusive settings. *Teaching Exceptional Children, 32,* 30-38.

Klecker, B. M. (2002). Formative classroom assessment using cooperative groups: Vygotsky and random assignment. *British Educational Research Journal, 28,* 500-617.

Lukin, L. E., Gardalos, D. L., Eckout, T. J., Mickelson, K. (2004). Facilitating the development of assessment literacy. *Educational Measurement, Issues and Practice, 23(2)*, 26-32.

The Learning Disabilities Association of Canada (2005). *Definition of learning disability*. Retrieved October 17, 2007 from http://www.ldac-taac.ca/index-e.asp.

Lindsay, G. (2003). Inclusive education: A critical perspective. *British Journal of Special Education, 30,* 3-12.

Lindsay, G. (2007). Educational psychology and the effectiveness of inclusive education/mainstreaming. *British Journal of Educational Psychology, 77,* 1-24.

LiveWorkPlay (2007). *Our clients*. Retrieved October 31, 2007, from http://www. liveworkplay.ca/LWP/cli.html.

Lupart, J. L. (1999). *Inching toward inclusion: The excellence/ equity dilemma in our schools*. Retrieved July 18, 2007, from www.cesc.ca/pceradocs /1999/99Lupart

Marks, S. U., & Maniates, H. (2003). *Formative evaluation of professional development: How will we know success?* (Report no. SP041719). Northern Arizona University. (ERIC Document Reproduction Service no. ED479642). Retrieved February 5, 2007, from ERIC database.

Martinson, D. L. (2004). A perhaps "politically incorrect" solution to the very real problem of grade inflation. *College Teaching, 52(2)*, 47-51.

Mather, J. (2002). Mental health development and inclusive education. *Adults Learning*, *14 (2),* 13-16.

McMillan, J. H. (2001). Secondary teachers' classroom assessment and grading practices. *Educational Measurement, Issues and Practice, 20(1),* 20-32.

McMillan, J. H. (2007). *Classroom assessment: Principles and practice for effective standards-*

based instruction (Fourth Ed.). Boston, MA: Pearson Education, Inc.

McMillan, J. H., & Workman, D. (1999). *Teachers' classroom assessment and grading practices: Phase I and II.* Richmond, VA: Metropolitan Educational Research Consortium. (ERIC Document Reproduction Service No. ED 442840). Retrieved November 23, 2007, from http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/ content_storage_01/0000019b/80/16/49/2d.pdf

McTighe, J., & O'Connor, K. (2005). Seven practices for effective learning. *Educational Leadership, 11*, 10-17.

Meisels, S. J., Atkins-Burnett, S., Xue, Y., Nicholson, J., Bickel, D. D., and Son, S-H. (2003, February 28). Creating a system of accountability: The impact of instructional assessment on elementary children's achievement test scores, *Education Policy Analysis Archives, 11*(9). Retrieved September 12, 2007, from http://epaa.asu.edu/epaa/v11n9/

Montgomery, K. (2001). *Authentic assessment: a guide for elementary teachers*. New York: Addison Wesley Longman, Inc.

Moore, C., Gilbreath, D., & Maiuri, F. (1998). *Educating students with disabilities in general education classrooms: A summary of the research.* Eugene, OR: Western Regional Resource Center. (ERIC Document Reproduction Service No. ED419329). Retrieved July 12, 2007, from http://interact.uoregon.edu/ wrrc/A Kinclusion.html

Munk, D. D., & Bursuck, W. D. (2003). Grading students with disabilities. *Educational Leadership*, *61(2),* 38-43.

Nickell, P. (1993). *Alternative assessment: Implications for social studies*. (ERIC Digest 360219)

Noonan, B. (2002). Interpretation panels and collaborative research. *Brock Education, 12(1),* 89-100.

O'Connor, K. (2007). *A repair kit for grading- 15 fixes for broken grades*. Portland, Oregon: Educational Testing Service.

Peck, C. A., Staub, D., Gallucci, C, & Schwartz, I. (2004). Parent perception of the impacts of inclusion on their nondisabled child. *Research & Practice for Persons with Severe Disabilities, 29,* 135-143.

Pierangelo, R., & Giulinani, g. A. (2006). *Assessment in special education: A practical approach*. Boston: Pearson Education, Ltd.

Pintrich, P. (2002). The role of metacognitive knowledge in learning, teaching, and assessing. *Theory Into Practice, 41(4),* 220-227.

Raymond, H. (1995). *Inclusive education: Stories and strategies for success.* Retrieved July 17, 2007, from http://www.unalberta.ca/~jpdasddc /inclusion /raymond

Reganick, K. (1995). *Social and academic issues of inclusive education* (ERIC Document Reproduction Service No. ED392176). Retrieved June 28, 2007, from ERIC database.

Rieck, W. A., & Wadsworth, D. E. (2005). Assessment accommodations: Helping Students with exceptional learning needs. *Intervention In School and Clinic*, *41(2),* 105-109.

Rivers, W. P. (2001). Autonomy at all costs: An ethnography of metacognitive self-assessment and self-management among experienced language learners. *The Modern Language Journal, 85,* 279-290.

The Roeher Institute. (2004). *Inclusive policy and practice for education: Best practices for students with disabilities.* North York, ON: Author.

Rossman, G., & Salzman, J. (1995). *Evaluating inclusive education programs: A survey of current practice* (Report No. TM023316). New York, NY: National Center on Educational Restructuring and Inclusion. (ERIC Document Reproduction Service No. ED383768)

Ruder, R. (2002). Test that honor students. *Principal Leadership*, *2(8),* 29-30.

Saskatchewan Association for Community Living (SACL) (2003, November). *Forum on the preparation and continuing professional development of teachers, educational assistants and other personnel who work with students with intellectual disabilities.* Saskatoon, SK: Author.

Saskatchewan Deaf and Hard-of-Hearing Services Inc. (2007). *SDHHS- About Us*. Retrieved October 31, 2007, from http://www.sdhhs.com/.

Saskatchewan Health. (2005). *A better future for youth: Saskatchewan's plan for child & youth mental health services.* Retrieved October 31, 2007, from http://www. health.gov.sk.ca/ better-future-youth.

Saskatchewan Learning. (2005). *Children's services & programs- special education and community education. Funding & documentation 2005-06: A guide for school divisions*. Retrieved July 1, 2007, from http://www.sasked.gov.sk.ca/branches

Saskatchewan Learning. (2006). *Policy, guidelines, and procedures for functional integrated programs*. Retrieved July 18, 2007, from http://www.sasked.gov.sk.ca

Saskatchewan Special Education Unit. (2001). *Creating opportunities for students with intellectual or multiple disabilities.* Regina, SK: Author.

Sato, M., Baker, V., Fong, E., Gilbertson, J., Liebig, T., & Schwartzfarb, N. (2006). Changing mindsets about classroom assessment. *Science Educator, 15(1),* 21-29.

Silva, M., Munk, D. D., & Bursuck, W. D. (2005). Grading adaptations for students with disabilities. *Intervention in School and Clinic, 41(2),* 87-99.

Sindelar, P. T., Shearer, D. K., Yenol-Hoppey, D., & Liebert, T. W. (2006). The sustainability of inclusive school reform. *Exceptional Children, 72(3),* 317-331.

Smith, R. (2001). Formative evaluation and the scholarship of teaching and learning. *New Directions for Teaching and Learning*, *88,* 51-62.

Soodak, L. C. (2003). Classroom management in inclusive settings. *Theory into Practice, 42(4),* 327-333.

Special Education Review Committee. (2000). *Directions for diversity:Enhancing supports to children and youth with diverse needs*. Regina: Author.

Stainback, S., & Stainback, W. (1992). Including students with severe disabilities in the regular classroom curriculum. *Preventing School Failure, 37,* 26-30.

Stanley, B., & Baines, L. (2004). No more shopping for grades at b-mart:Re-establishing grades as indicators of academic performance. *The Clearing House, 77(3),* 101-108.

Stiggins, R. (2001). *Student-involved classroom assessment (3rd Ed.).* New Jersey: Prentice-Hall. Inc.

Stiggins, R. (2004). New assessment beliefs for a new school mission. *Phi Delta Kappan ,86,* 22-27.

Stiggins, R., & Chappuis, J. (2005). Using student-involved classroom assessment to close achievement gaps. *Theory Into Practice, 44,* 11-18.

Stiggins, R., Conklin, N. F., & Bridgeford, N. J. (1986). Classroom assessment: A key to effective education. *Educational Measurement: Issues and Practice, 5(2),* 5-17.

Stiggins, R. J., Frisbie, D. A., & Griswold, P. A. (1989). Inside high school grading practices: Building a research agenda. *Educational Measurement: Issues and Practice, 8(2),* 5-14.

Strong, B., Davis, M., & Hawkes, V. (2004). Self-grading in large general education classes. *College Teaching, 52(2),* 52-58.

Student Support Services (2000). *What is a language impairment?* Retrieved October 31, 2007 from http://www.ed.gov.nl.ca/edu/dept/pdf/comm_disorder/Section1.pdf.

Taras, M. (2002). Using assessment for learning and learning from assessment. *Assessment & Evaluation in Higher Education, 27*, 501-510.

Tindal, G., Mcdonald, M., Tedesco, M., Glasgow, A., Almond, P., Crawford, L., & Hollenbeck, K. (2003). Alternate assessments in reading and math: Development and validation for students with disabilities. *Council for Exceptional Children, 69 (4)*, 489-494.

Tombari, M., & Borich, G. (1999). *Authentic assessment in the classroom*. New Jersey: Prentice-Hall, Inc.

Tomlinson, C. A. (2005). Grading and differentiation: Paradox or good practice? *Theory Into Practice, 44(3),* 262-270.

Torrance, H., & Pryor, J. (2001). Developing formative assessment in the classroom: Using action research to explore and modify theory. *British Research Journal, 27*, 615-631.

United Nations Educational , Scientific and Cultural Organization (UNESCO). (1994). *The Salamanca statement and framework for action on special needs education.* Adopted by the World Conference on Special Needs Education Access and Quality, Salamanca, Spain, June 7-10, 1994. Retrieved July 14, 2007, from http://portal.unesco.org/education

Weber, K. (1994). *Special Education in Canadian Schools*. Ontario: Highland Press.

Weston, T. (2004). Formative evaluation for implementation: Evaluating educational technology applications and lessons. *American Journal of Evaluation, 25*, 51-64.

Wiggins, G. (1990a, June). *The truth may make you free, but the test may keep you imprisoned: Toward assessment worthy of the liberal arts.* Retrieved October 20, 2007, from http:// www.maa.org/SAUM/articles/wigginsbiotwocol.htm.

Wiggins, G. (1990b). The case for authentic assessment. *Practical Assessment, Research and Evaluation* 2(2). Retrieved October 15, 2007, from http://PAREonline.net/getvn. asp?v=2&n=2.

Wiggins, G. (1993). *Assessing Student Performance*. San Francisco: Jossey-Bass Publishers.

Wiggins, G. (2003). *"Get real!" Assessing for quantitative literacy*. Retrieved March 8, 2007, from http://www.maa.org/saum/articles/wigginsbiotwocol.htm

Wiliam, D. & Black, P. (1996). Meanings and consequences: A basis for distinguishing formative and summative functions of assessment? *British Educational Research Journal, 22*, 537-548.

Will, M., (1986). Educating children with learning problems: A shared responsibility. *Exceptional Children*, 52, 411-415.

Wood, J. W. (1996). Adapting evaluation and alternative grading. In *Reaching the Hard to Teach* (pp. 302-347). Midlothian, VA.

Wormeli, (R. (2006). Accountability: Teaching through assessment and feedback, not grading. *American Secondary Education, 34(3),* 14-28.

Ysseldyke, J. (2005). Assessment and decision making for students with learning disabilities: What if this is as good as it gets? *Learning Disability Quarterly, 28,* 125-129.

Yorke, M. (2003). Formative assessment in higher education: Moves towards theory and the enhancement of pedagogic practice. *Higher Education, 45*, 477-501.

Zhang, Z., & Burry-Stock, J. A. (2003). Classroom assessment practices and teachers' self-perceived assessment skills. *Applied Measurement In Education*, *16(4),* 323-342.

APPENDIX A
Letter of Invitation to Teachers

June 2008

Dear Teacher,

I am a teaching colleague and graduate student in the College of Educational Psychology and Special Education, University of Saskatchewan. This is a request for your cooperation in a study I am conducting entitled *Secondary Teachers' Assessment and Grading Practices in Inclusive Classrooms.* The purpose of this study is to obtain information on high school teachers' classroom assessment and grading practices, within a division that has implemented the practice of inclusivity. It will also examine the factors affecting these practices, within diverse classroom environments, that include a variety of students with special needs.

Approval to conduct this study has been obtained from the Behavioural Research Ethics Board (Beh-REB), University of Saskatchewan, Rm 306 Kirk Hall (966-2084), from Dr. Scott Tunison, Measurement Coordinator, Saskatoon Public School Division #13 (683-8256) and from your school principal.

The attached survey instrument will require approximately 15 minutes to complete and will be used to gather information regarding high school teachers' assessment and grading practices within an inclusive classroom setting. Your completion of the survey implies that you have consented to participate. To ensure anonymity, please do not put your name or your school name on the survey. Return the completed survey to your school representative, as indicated.

The results will be summarized according to common factors, themes, and practices. The summarized data will be presented to an Interpretive Panel composed of teachers, other researchers, and measurement specialists who will assist in analyzing and interpreting the compiled data. They will not have access to individual surveys.

A summary of the results of this study will be available to your school, our division, and other interested educational groups. I will also available to discuss the results.

All data will be securely maintained by Dr. Brian Noonan, Department of Educational Psychology and Special Education, University of Saskatchewan for a minimum of five years and then destroyed in accordance with recommended guidelines.

Your anticipated cooperation is sincerely appreciated. If you have any questions or comments you can contact me by phone at […] or by email at […].

Sincerely,

Lisa Gurski

APPENDIX B:

Assessment and Grading Practices of Secondary Classroom Teachers

Thank you for taking the time to complete this short survey. It is focused on your current assessment and grading practices for one of the courses you teach within an inclusive classroom setting. *In order to assure anonymity, please do not put your name or the name of your school on the survey.* By completing this survey it is understood that you do so voluntarily and that you consent to the use of your responses in the study.

This survey consists of three parts:

Part 1 **Background Information.**

Part 2 **34 selected response questions.**

Please clearly indicate your response by shading the bubble completely.

Please do not use checkmarks (√) or an (x).

Example: in responding to this survey, I am doing so for (select one):

Math ① Science ● Social Science ③ Practical Arts ④

Part 3 **Four open-ended questions.**

PART 1 ***In responding to the following questions, please do so considering one level and course you are currently teaching or have taught recently.***

1. In responding to this survey, I am doing so for (select one):
   - Grade 9 ①
   - Grade 10 ②
   - Grade 11 ③
   - Grade 12 ④

2. In responding to this survey, I am doing so for (select one):
   - Math ①
   - Science ②
   - English Language Arts ③
   - Social Sciences ④
   - Practical Arts ⑤
   - Other ⑥ _____

3. Number of students in the class:
   - less than 15 ①
   - 15 - 25 ②
   - 26 – 35 ③
   - more than 35 ④

4. Number of students in the class with special needs (for example: LD, ESL, gifted, autistic, emotional, physical and psychological exceptionalities and any other students with needs that may or may not receive funding and/or support)
   - less than 5 ①
   - 6 - 10 ②
   - 11 – 21 ③
   - more than 21 ④

5. To what extent are you prepared to meet the challenges of teaching in an inclusive classroom?
   - not at all prepared ①
   - a little prepared ②
   - somewhat prepared ③
   - quite prepared ④
   - completely prepared ⑤

6. Have you taken any additional courses in special education, other than the one required for completion of your Bachelor of Education?
   - Yes ①
   - No ②

7. Have you taken any university courses in classroom assessment (for example: measurement and evaluation)?
   - Yes ①
   - No ②

PART 2 ***Please select the response that best matches your grading practices, based on the level and course you identified in Part 1.***

		Not at all	Very Little	Some	Quite a Bit	Extensively	Completely
A.	***Factors you use in determining grades***						
1.	Performance compared to a scale of percentage correct (eg. 86.94% = B)	①	②	③	④	⑤	⑥
2.	Specific learning objectives mastered	①	②	③	④	⑤	⑥
3.	Academic performance as opposed to other factors	①	②	③	④	⑤	⑥
4.	Inclusion of zeros for incomplete assignments in the determination of final percentage	①	②	③	④	⑤	⑥
5.	Ability levels of the students	①	②	③	④	⑤	⑥
6.	Student effort – how much the student tried to learn	①	②	③	④	⑤	⑥
7.	Quality of completed homework (graded)	①	②	③	④	⑤	⑥
8.	Completion of homework (not graded)	①	②	③	④	⑤	⑥
9.	Degree to which the student pays attention and/or participates in class	①	②	③	④	⑤	⑥
10.	Effort, improvement, behaviour and other "nontest" indicators for borderline cases	①	②	③	④	⑤	⑥
11.	Improved performance since the beginning of the year	①	②	③	④	⑤	⑥
12.	Work habits and neatness	①	②	③	④	⑤	⑥
13.	Extra credit for academic performance	①	②	③	④	⑤	⑥
14.	Performance compared to other students in the class	①	②	③	④	⑤	⑥
15.	Disruptive student performance	①	②	③	④	⑤	⑥

		Not at all	Very Little	Some	Quite a Bit	Extensively	Completely
16.	Extra credit for nonacademic performance (eg. bringing items for the food drive)	①	②	③	④	⑤	⑥
17.	Formal or informal school or division policy of the percentage of students who may obtain A's, B's, C's, D's and F's	①	②	③	④	⑤	⑥
18.	Performance compared to students from previous years	①	②	③	④	⑤	⑥
19.	Grade distributions of other teachers	①	②	③	④	⑤	⑥
B.	***Types of assessments you use***						
20.	Assessments designed primarily by yourself	①	②	③	④	⑤	⑥
21.	Performance quizzes	①	②	③	④	⑤	⑥
22.	Objective assessments (eg. multiple choice, matching, short answer)	①	②	③	④	⑤	⑥
23.	Essay-type questions	①	②	③	④	⑤	⑥
24.	Performance assessments (eg. structured teacher observations or ratings of performance such as a speech or paper)	①	②	③	④	⑤	⑥
25.	Projects completed by individual students	①	②	③	④	⑤	⑥
26.	Major exams	①	②	③	④	⑤	⑥
27.	Authentic assessments (eg. "real world" performance tasks)	①	②	③	④	⑤	⑥
28.	Projects completed in teams or groups of students	①	②	③	④	⑤	⑥
29.	Assessments provided by publishers or supplied to the teacher (eg. in instructional guides or manuals)	①	②	③	④	⑤	⑥
30.	Oral presentations	①	②	③	④	⑤	⑥

		Not at all	Very Little	Some	Quite a Bit	Extensively	Completely
C.	***Cognitive level of assessments***						
31.	Assessments that measure student understanding	①	②	③	④	⑤	⑥
32.	Assessments that measure how well students apply what they learn	①	②	③	④	⑤	⑥
33.	Assessments that measure student reasoning	①	②	③	④	⑤	⑥
34.	Assessments that measure student recall knowledge	①	②	③	④	⑤	⑥

PART 3 ***Please respond to each of the open-ended questions based on the level and course you identified in Part 1. Use the back of this page if you require more space to answer.***

1. a) In your view, what are the most positive aspects of your current classroom assessment and grading practices?

   b) What do you view as problems or concerns (if any)?

2. To what extent do you use peer assessment or self-assessment (or other types of assessments not included in this survey) as part of grading student achievement?

3. Saskatchewan Education has mandated the practice of inclusive education in all schools. To what extent have you experienced this philosophy, based on the level and course you identified in Part 1?

4. General comments or suggestions?

Thank you for taking the time to complete this survey.

Appendix C
Letter of Request for Participation

May 2008

Dr. Scott Tunison- Measurement Coordinator
Saskatoon Public School Division #13
310 21st St. E
Saskatoon, SK
S7K 1M7

Dear Dr. Tunison,

I am presently enrolled in a graduate program in the College of Educational Psychology and Special Education at the University of Saskatchewan and am planning my thesis research in partial fulfillment of my Master's of Education degree.

As an employee of the Saskatoon Public School Division #13, who has recently benefited from a Professional Development leave, I am excited to embark on the research component of my studies in an area that has been receiving increased attention from our board.

The topic of my study is "Secondary Teachers' Assessment and Grading Practices In Inclusive Classroom Settings". The purpose of my study is to examine the factors affecting current classroom assessment and grading practices utilized by general classroom teachers at the high school level. As a researcher, my specific intent is to administer a questionnaire to high school teachers that will allow them to indicate their current assessment and grading practices.

Attached is a copy of the letter to teachers and the questionnaire to be administered. Participation is voluntary and data will be gathered anonymously. The presentation of the resulting data in aggregated form will ensure the anonymity of individual participants. My research has received ethics approval from the Behavioral Research Ethics Committee of the University of Saskatchewan on May 12, 2008.

Please consider this letter as my formal request for permission to administer the questionnaire to secondary teachers within the division. I estimate that the time required to complete the questionnaire will be approximately 15 minutes. Results will be made available to all participating schools.

Thank you for your time and consideration. I look forward to your reply.

Sincerely,
Lisa Gurski

Appendix D
Interpretive Panel Consent Form

You are invited to participate in an Interpretive Panel to analyze data generated from a study entitled *Secondary Teachers' Assessment and Grading Practices in Inclusive Classrooms.*

Please read this form carefully, and feel free to ask questions you might have.

Researcher: Lisa Gurski- Master's Student
Department of Educational Psychology and Special Education
University of Saskatchewan
[Contact Information]

Purpose and Procedure:

The purpose of this study is to determine classroom teachers' assessment and grading practices within inclusive settings. The graduate student researcher will gather information from current secondary school teachers regarding their current classroom assessment and grading practices, within inclusive classroom settings, based on a questionnaire adapted from the work of Duncan and Noonan (2007) and McMillan (2001).

Your role as an Interpretive Panelist will be to examine the summarized results to suggest possible interpretations, areas for future research and professional development, or potential areas of concern. The presentation and analysis of the data will be based on common factors, themes, and practices. You will not have access to individual questionnaires.

You will be asked to attend a brief presentation on the background research related to this study, the survey instrument, and the resulting summarized data. A guided panel discussion will follow where you will assist in interpreting the results.

The time commitment required to perform this task will be a maximum of 4 hours on a weekday outside of regularly scheduled school hours. The location of the Interpretive Panel analysis will be the library at Nutana Collegiate Institute- 411 11th Street East, Saskatoon.

Potential Benefits:

Because of the increasing focus on classroom assessment and grading practices and the impact of the inclusive philosophy on general educators, it may be beneficial to learn more from teachers regarding their current classroom practices. This study may aid in illuminating areas of successful practices that can be shared with educators who are struggling to meet the needs of a diverse classroom population. It could also provide some potential areas of focus for future teachers training, professional development, or needed resources.

Members of the Interpretive Panel may benefit personally and professionally from the opportunity to collaborate with other professionals through this process.

There is no guarantee of potential benefits of this study to members of the Interpretive Panel.

Potential Risks:

There are no potential risks or deceptions involved in this process.

Storage of Data:

All data will be securely stored and retained by Dr. Brian Noonan, Department of Educational Psychology and Special Education, University of Saskatchewan for a minimum of five years in accordance with the recommended guidelines. The data will be destroyed after the five-year period has expired.

Confidentiality:

The presentation and analysis of the data will be on common factors, themes, and practices. Aggregation of data will aid in maintaining anonymity regarding direct quotations.

The Interpretive Panel will only have access to the summarized results, and not to individual completed questionnaires.

The researcher will undertake to safeguard the confidentiality of the discussion, but cannot guarantee that other members of the group will do so. Please respect the confidentiality of the other members of the Interpretive Panel by not disclosing the contents of the discussion outside the Panel. Be aware that others may not respect your confidentiality.

Right to Withdraw:

Your participation is voluntary. There is no guarantee that you will personally benefit from your involvement. You may withdraw from your participation in the Interpretive Panel, at any time, without penalty of any sort. If you withdraw from

the Interpretive Panel at any time, any information you have contributed will be destroyed at your request.

Questions:

If you have any questions concerning this study, please fell free to ask at any point. You are also free to contact the researcher at the number provided if you have any questions. This research project has been approved on ethical grounds by the University of Saskatchewan Behavioural Research Ethics Board on ,2008. Any questions regarding your rights as a participant may be addressed to that committee through the Ethics Office (966-2084).

Follow-Up:

A summary of the results from the teacher questionnaire will be provided to participating school Principals or will be available from the student researcher upon request. The study will be submitted to the University of Saskatchewan, in thesis format, to fulfill the requirements of the Master's Degree Program in Educational Psychology and Special Education. Public access to the completed thesis will be at the University of Saskatchewan Education Library.

If requested, Interpretive Panel participants may contact the student researcher for additional feedback, questions, or individual debriefing.

Consent to Participate:

I have read and understood the description provided; I have had an opportunity to ask questions and my questions have been answered. I consent to participate in the Interpretive Panel, understanding that I may withdraw my participation at any time.

A copy of this Consent Form has been given to me for my records.

_____	_____
Name of Participant	Date
_____	_____
Signature of Participant	Signature of Researcher

APPENDIX E

APPLICATION FOR APPROVAL OF RESEARCH PROTOCOL

To

University of Saskatchewan

Behavioural Research Ethics Board (Beh-REB)

1. Name of Researcher and Related Department

Dr. Brian Noonan
Faculty
Department of Educational Psychology and Special Education
University of Saskatchewan

Lisa Gurski
Master's Student
Department of Educational Psychology and Special Education
University of Saskatchewan

1b. Phase I: Anticipated start date of the research study is May, 2008.
Phase II: Expected completion date of the study is October, 2008.

2. Title of the Study

Secondary Teachers' Assessment and Grading Practices In Inclusive Classrooms

3. Abstract

The assessment reform movement has focused on classroom assessment and grading practices as a potential means to improving teaching and learning (Hargreaves et al., 2002; James & Pedder, 2006; Lukin et al., 2004; Stiggins, 2004, 2005; Stiggins et al.1986; McMillan, 2001, 2007; Wiggins, 1990a, 1990b, 1993, 2003). Many researchers agree that the best way to enhance learning for a diverse range of students is through appropriate, reliable, and valid classroom assessment and grading practices (Allen, 2005; Jordan, 2007; McMillan, 2007; Reganick, 1995; Stainback & Stainback, 1992). This is of particular importance in Saskatchewan because the inclusive philosophy has been mandated for all schools (Saskatchewan Education, 2001). Classroom teachers are responsible for the instruction, assessment, and grading of students with mild disabilities, learning, emotional, and behavioral challenges, and other needs that require specific attention (Bruns & Mogharreban, 2007; Kavale & Mostert, 2003; Lindsay, 2003; Lupart, 1999; SACL, 2003; Sindelar et al., 2006; Soodak, 2003; Stainback & Stainback, 1992).

This study will examine classroom teachers' assessment and grading practices within inclusive classrooms. A survey adapted from the work of Duncan and Noonan (2007) and McMillan (2001) asks current secondary classroom teachers about their assessment and grading practices. The survey serves as the means to gather data in order to compare teachers' practices with pertinent literature relating to effective assessment and grading practices and challenges that are posed by the inclusive philosophy. A copy of the teacher survey is attached (Appendix B- Assessment and Grading Practices of Secondary Classroom Teachers).

4. Funding

No funding is required.

5. **Expertise**

This research does not involve direct contact with any special or vulnerable populations.

6. Conflict of Interest

There is no conflict of interest in this study.

7. Participants

Secondary school teachers from a large urban school division will be invited to participate in the survey. Potential respondents will receive a copy of the teacher survey attached to a Letter of Invitation (Appendix A- Letter of Invitation) describing the purpose and nature of the research study, the approximate time required for completion of the survey, the name and contact information of the researcher and the Behavioural Research Ethics Board.

The Letter of Invitation will inform participants of the Beh- REB approval and the purpose of the Interpretive Panel. Teachers who choose to participate in the study will submit their completed copy of the survey to the researcher.

8. Consent

Upon receiving Behavioural Research Ethics Board (Beh-REB) approval for this study, permission will be sought, in writing, from the school division's Coordinator of Measurement before any research is undertaken (Appendix C- Letter of Request for Participation).

After receiving permission from the participating school division, initial contact will be made with school principals, in person, to briefly introduce and explain the study. At this time, principals will receive copies of the survey and Letters of Invitation to disseminate to their teaching staff. Teachers will be instructed not to include their name or their school name on the survey to maintain anonymity. They will also be informed that their voluntary consent is assumed by their completion of the survey. Completed surveys will be returned to the researcher.

Members of the Interpretive Panel will sign a consent form (Appendix D Interpretive Panel Consent Form) that will explain the nature and purpose of the study and the role of the panel in assisting in data analysis. Panelists will be made aware that their participation is voluntary and that they may withdraw at any point.

9. Methods/ Procedures

The survey instrument is similar to one that has been used in previous studies (Duncan and Noonan, 2007; McMillan, 2001) and has been reviewed by educators as to its validity and appropriateness.

The teacher survey will be given to principals or his/her designate who will distribute it to the teaching staff. Completed surveys will be returned to the researcher.

Once teachers have completed and returned the survey, the results will be summarized and analyzed according to common factors, themes, and practices. To assist with the interpretation of the results a panel of teachers (Interpretive Panel) will be asked to review the summarized data. This procedure will assist the researcher in better understanding the implication of teachers' assessment and grading practices in inclusive classrooms. The feedback from the Interpretive Panel will be used to inform discussion and future directions for research in this area.

10. Storage of Data

All data will be securely stored and retained by Dr. Brian Noonan, Department of Educational Psychology and Special Education, University of Saskatchewan for a minimum of five years in accordance with the recommended guidelines. The data will be destroyed after the five-year period has expired.

11. Dissemination of Results

A summary of the results from the teacher survey will be provided to participating school principals or will be available from the student researcher upon request. The study will be submitted to the University of Saskatchewan, in thesis format, to fulfill the requirements of the Master's Degree Program in Educational Psychology and Special Education.

12. Risks, Benefits, and Deceptions

There are no risks or deceptions involved in this study. The purpose and nature if the study will be clearly communicated to the participants. Participation is voluntary and anonymity is assured.

Because of the increasing focus on classroom assessment and grading practices and the impact of the inclusive philosophy on general educators, it will be beneficial to learn more from teachers regarding their current classroom practices. This study may aid in illuminating areas of successful practices that could be shared with educators who are struggling to meet the needs of a diverse classroom population. It could also provide some potential areas of focus for future teachers training, professional development, or needed resources.

13. Confidentiality

Participants will be informed at the outset that anonymity of the school division, schools, and individual participants will be maintained. The participating school division will not be identified. The presentation and analysis of the data will be based on common factors, themes, and practices. Aggregation of data will aid in maintaining anonymity regarding direct quotations. The Interpretive Panel will only have access to the summarized results, and not to individual completed questionnaires.

Once the study is complete, participants will have an opportunity to review a summary of the compiled results, either available from their principal, or from the student researcher. The

student researcher will also provide her contact information to participants should they have additional questions or concerns.

14. Data/ Transcript Release

This section does not apply.

15. Debriefing and Feedback

All participants will be informed about the public access to the completed thesis at the University of Saskatchewan Education Library and the copies of summarized results available to school Principals. If requested, participants may contact the student researcher for additional feedback, questions, or individual debriefing.

16. Required Signatures

Applicant:_____ **Date:**_____

Advisor:_____ **Date:**_____

Department Head:_____ **Date:**_____

17. Required Contact Information

Lisa Gurski- Graduate Student
Department of Educational Psychology and Special Education
[Contact Information]

Brian Noonan Ph D.- Advisor
Department of Educational Psychology and Special Education
College of Education, University of Saskatchewan,
28 Campus Dr., Saskatoon, SK. S7N 0X1 (306) 966-5265 brian.noonan@usask.ca

Dr. David Mykota- Department Head
Department of Educational Psychology and Special Education
College of Education, University of Saskatchewan,
28 Campus Dr., Saskatoon, SK. S7N 0X1(306) 966-5258 david.mykota@usask.ca