# Grading and Reporting Purposes and Practices in Catholic Secondary Schools and Grades' Efficacy in Accurately Communicating Student Learning 

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# GRADING AND REPORTING PURPOSES AND PRACTICES IN CATHOLIC SECONDARY SCHOOLS AND GRADES' EFFICACY IN ACCURATELY COMMUNICATING STUDENT LEARNING 

A Dissertation

Presented
to
The Faculty of the School of Education
Leadership Studies Department
Catholic Educational Leadership Program

In Partial Fulfillment
Of Requirements for the Degree
Doctor of Education
by
Peter Imperial
San Francisco, California
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# THE UNIVERSITY OF SAN FRANCISCO <br> Dissertation Abstract 

# GRADING AND REPORTING PURPOSES AND PRACTICES IN CATHOLIC SECONDARY SCHOOLS AND GRADES' EFFICACY IN ACCURATELY COMMUNICATING STUDENT LEARNING 

Few aspects of school are as controversial as the practice of grading, for grades affect students' educational opportunities. The purpose of this study was to identify the practices Catholic high-school teachers employed in determining students' grades. The study investigated the extent to which academic achievement comprised the grades teachers reported, and the extent to which teachers' practices are consistent with their expressed purposes for grading. The study also explored the extent to which Catholic teachers' grading practices are consistent with their schools' purpose for grading. Using random sampling, 486 Catholic secondary school teachers and 50 administrators from 33 high schools in California, Nevada, and Hawai'i were surveyed to determine the purposes for which teachers grade, the practices they employ in determining those grades, and the purposes for which their schools grade. A thematic analysis of school grading documents was completed to examine schools' purposes for grading and school-wide grading policies. Results revealed that Catholic teachers' employ a wide variety of grading practices in determining students' grades. Teachers reported that academic achievement is the primary purpose for which they report grades. While the grades that teachers reported for their students emphasized achievement, nearly half reported that they communicate grades to report more than achievement alone and include sources of evidence that are not indicative of achievement, even those teachers who claimed to grade solely to report academic achievement. Teachers of different subject areas
emphasized academic achievement variously. A majority of Catholic high schools did not have a statement of purpose for grading, and samples of schools that did publish a grading purpose revealed ambiguity about the purpose. Finally, an examination of the data revealed little variation in purpose and practice even among educators who had higher degrees in education or who had received additional training in the practice of grading. These prevalent practices diminish the reliability of grades as communications of student learning and as data to guide adjustments in instruction that can address students' learning needs. Moreover, they hinder Catholic secondary schools' mission of meeting the needs of its students, especially those who struggle and are socially or educationally disadvantaged.

This dissertation, written under the direction of the candidate's dissertation committee and approved by the members of the committee, has been presented to and accepted by the members of the School of Education in partial fulfillment of the requirements for the degree of Doctor of Education. The content and research methodologies presented in this work represent the work of the candidate alone.

Peter A. Imperial Candidate

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Christopher N. Thomas $\qquad$ -

To my extraordinary wife, Susan Benson Imperial, who, with her boundless patience and love, allowed me to indulge in this curious journey, and to my beautiful daughter, Isabella, owed a debt of countless days and nights of waiting, accrued while Dad wrote.

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## CHAPTER I

## THE RESEARCH PROBLEM

Statement of the Problem

Few aspects of school are as controversial as the practice of grading. The evaluation and reporting of student learning provide data that affect students' opportunities and substantially influences their futures. A variety of constituencies make important educational, financial, and career decisions based on transcripts and grade reports generated by schools (Stiggins, 2001). School administrators use them for a variety of purposes: to determine students' admission into academic programs and on appropriate educational paths, to evaluate the effectiveness of instructional programs and of teachers, to establish student eligibility for participation in interscholastic athletics, and to bestow academic honors on students. Insurance companies commonly discount automobile insurance rates for students whose grade-point averages (GPA) meet company standards. Perhaps most importantly, colleges and universities weigh students' grades heavily in their admissions decisions (Guskey, 2001). Grades are currency in the marketplace of student opportunity.

Despite being imbued with such value, there is much confusion regarding the meaning of grades and their reliability in communicating levels of student academic achievement (Baron, 2000; Schaffner, Burry-Stock, Cho, Boney, \& Hamilton 2000; The College Board, 1998). One reason for this confusion is that many teachers use grades for multiple purposes: to communicate academic achievement, to motivate students, to compel student attendance, and to modify student behavior (Cross \& Frary, 1996; McMillan \& Workman, 1999). Mixing factors, such as effort, ability, and conduct, with
achievement into a single symbol nullifies that symbol's ability to clearly communicate any one aspect of a student's education (Guskey, 2001; Marzano, 2000; Stiggins, 2001).

Inconsistency in the methods by which grades are determined is another reason for confusion among receivers of grade reports. Teachers generally have wide latitude in determining grading methods in their classes (The College Board, 1998). Cizek (1995) found that "assessment practices vary widely and unpredictably" (p. 1). Additionally, the prevalence of computer-grading programs in high schools compels dependence on a computational approach to determining grades. While mathematical computation conveys a sense of objectivity in determining students' grades, researchers have identified a number of practices that teachers commonly employ in determining grades that can lead to mismeasurement of student learning. These include the practice of assigning zeros to work, averaging assessment scores over a grading term, and reducing students' scores for behavioral infractions (Guskey \& Bailey, 2001; Marzano, 2000; O'Connor, 2002; Stiggins, 2001).

Another reason that grades' reliability is questioned has been a perception that grade inflation has taken hold in high schools (Woodruff \& Ziomek, 2003). A 1998 College Board study revealed that between 1987 and 1997 "the population of students earning A+, A, or A- grades [grew] from 28 percent to 37 percent while their SAT scores [fell] an average of 13 points on verbal and 1 point on math" (p. 2).

Stiggins (2001) defined grading as "the process of abstracting a great deal of information into a single symbol for ease of communication" (p. 412). The difficulty of this process is heightened in a standards-based environment where alignment between grades and test scores is more closely scrutinized. Welsh and D'Agostino (2009)
reported that grading practices varied from teacher to teacher, often resulting in grades that do not align with standardized test results. Despite repeated calls for reform based on the growing body of research on what grading practices and policies are appropriate, little has changed (Brookhart, 2009; Guskey, 2009; Marzano, 2000). Brookhart (1991) used the descriptor "hodgepodge" to describe the use of multiple criteria and multiple methods that teachers employ to determine grades. This has been a longstanding condition in schools. Commenting on contemporary assessment practices, Reeves (2001) wrote, "The state of assessment is now little different than it has been for decades" (p. 8).

Differences exist among researchers regarding specific practices for communicating levels of student learning more clearly and accurately through grading, but there is clear consensus in the literature that change is needed in the way teachers grade and report student learning (Brookhart, 1993, 2009; Guskey, 1996, 2009; Guskey and Bailey, 2001; Marzano, 2000, 2006; McMillan, 1999a, 1999b, 2000; O’Connor, 1999, 2002; Stiggins, 2001; Wormeli, 2006). "What critics of grading must understand is that the symbol is not the problem; the lack of stable and clear points of reference in using symbols is the problem" (Wiggins, 1996, pp. 144-145). O'Connor (2002) argued that schools need to develop grading policies and procedures that guide classroom teachers in determining grades and result in consistency between and within schools.

One consequence of the inconsistency in the practice of grading has been an increased reliance on standardized tests like the SAT and ACT to evaluate student readiness for postsecondary education (Lemann, 1998). Commissions and critics who have concluded that American high schools are inadequately preparing their students for postsecondary life point to evidence such as declining SAT scores and middling rankings
of American students on international exams. Most notable of these reports has been $A$ Nation at Risk (National Commission on Excellence in Education, 1983) the publication of which is considered the beginning of the standards movement, and 1996's Third International Math and Science Study (TIMSS) (Beatty, 1997; National Association of Secondary School Principals, 1996; National Commission on Excellence in Education, 1983).

While schools, school districts, and colleges have increasingly relied on standardized tests to make important decisions, they are limited in their ability to measure and communicate student achievement (Kohn, 2000; Popham, 2001; Stiggins, 2001). These types of assessments are infrequently administered and are summative in their purpose, limited in both their format and in the types of student learning they can measure. Thus, teacher-determined grades remain vital communications about student achievement.

Classroom teachers are best positioned to evaluate student learning and communicate about it. Classroom assessments, summarized in grades or other symbols, can provide classroom teachers with rich and varied data to make fully informed judgments about what students know and are able to do (Guskey, 2007). In addition, teachers' grades need not be only summative reports of student achievement. They can be used for diagnostic purposes as well, communicating students' strengths and weaknesses and guiding teachers' instructional decisions (Stiggins, 2002).

The fact that teachers can employ reports of student achievement to highlight student needs imbues grading with the potential to enhance learning (Marzano, 2006, p. 125). Indeed, a primary strategy to improve overall academic performance in the
nation's public high schools has been to ensure that each student becomes academically proficient (National Association of Secondary School Principals, 1996). 2001's No Child Left Behind Act (The Elementary and Secondary Education Act of 2001, 2001) neatly condensed this belief in its title. Stiggins (2001) noted that the social and economic changes of the 1980s and 1990s changed the mission of schools. It was no longer sufficient for schools to identify talented students and rank them. Students needed to have their talents developed. "While we can assign grades and sort students dependably without quality assessments and sound grading practices, we cannot ensure the highest level of competence for all students without them" (p. 413). A Nation At Risk (National Commission on Excellence in Education, 1983) underscored the potential for grades to guide student improvement: "Grades should be indicators of academic achievement so they can be relied on as evidence of a student's readiness for further study" (p. 73).

In this context, communicating clearly about each student's academic performance takes on obvious importance. Effective communication requires teachers to be clear about the purposes for which they give grades and consistent in the practices they employ in determining them. A number of studies of public-school teachers indicate that there is much disagreement about the purpose of grades and variation in the methods used to develop them. This is not surprising when one considers the paucity of formal training in grading and assessment in teacher training programs. Stiggins (2002) noted that only about a dozen states require training in assessment as a condition to be licensed to teach in public schools.

In Catholic high schools, the reliability and validity of the grading policies and practices employed by teachers are generally unknown. A search of available literature
using academic online search engines uncovered no studies on grading and reporting student learning in Catholic schools. Catholic schools are not uniform in governance and mission, and Catholic school teachers operate with wider latitude than do their publicschool counterparts (Bryk, Lee, \& Holland, 1993). Moreover, Phelps (2003) found that Catholic high-school teachers receive less professional development training than their public-school counterparts.

Leaders in Catholic education have emphasized the imperative for schools to address each student's academic needs. The National Catholic Educational Association (NCEA) stressed the necessity for teachers to "recognize and respond to individual differences among students" in order to help teachers find ways "to meet the individual needs of students" (McDermott, 1997, p. 33). The United States Conference of Catholic Bishops (2002) emphasized Catholic schools' support of meeting the needs of particular students: "Catholic schools must also continue to look for ways to include and serve better the needs of young people in our Church who have special educational and physical needs" (p. 9). Given these calls, the absence of research into the grading practices and purposes of Catholic high-school teachers results in an educational blind spot Catholic secondary educators.

Grades can be powerful tools in guiding Catholic high-school students to higher academic achievement. The policies and practices that Catholic high-school teachers employ to determine grades is largely unknown; therefore, their efficacy in accurately communicating and enhancing student learning in Catholic high schools cannot be determined and warrants exploration.

## Purpose of the Study

The purpose of this study was to identify the practices that Catholic high-school teachers employed in determining their students' grades. The study investigated the extent to which academic achievement comprised the grades that teachers reported, and the extent to which teachers' grading practices are consistent with their expressed purposes for grading. Finally, the study explored the extent to which Catholic highschool teachers' grading practices are consistent with their respective school's purpose for grading.

The methodologies used to collect data for this study were two researcherdesigned surveys and a thematic analysis of available school grading policies. Random sampling was employed in the two surveys. Teachers and administrators from 33 Catholic high schools in California, Nevada, and Hawai'i participated in the survey research. The sampling of teachers represented 31 schools; the sampling of administrators came from 26 schools. 486 teachers began the teacher survey, and 416 of those completed the entire survey. Fifty administrators began the survey, with 43 administrators completing the survey. The Parent/Student Handbooks of 48 Catholic high schools in California, Nevada, and Hawai' $i$, in addition to the grading policies posted by four additional schools in other documents on their websites, were reviewed to determine if each school had articulated its purpose for grading, what the purpose was, and if the school had established school-wide policies for teachers to follow in determining students' grades.

## Background and Need

In 1990 the American Federation of Teachers, the National Council of Measurement in Education, and the National Education Association published the Standards for Teacher Competence in Educational Assessment of Students in order for students to realize the educational benefits of classroom assessments. Of the seven standards developed, two standards in particular focused on grading and communication of learning. Standards 5 and 6 read, respectively, "Teachers should be skilled in developing valid pupil grading procedures which use pupil assessments," and "Teachers should be skilled at communicating assessment results to students, parents, other lay audiences, and other educators" (pp. 5-6).

While the publication of the Standards came at a time of growing concern for the quality of education that American students were receiving, educational researchers and theorists had been critical of grading practices going back nearly a century. In 1913, researcher I. E. Finkelstein (1913), commenting on the heavy emphasis placed by teachers and students on number and letter marks, wrote, "We can but be astonished at the blind faith that has been felt in the reliability of the marking system. School administrators have been using with absolute confidence an absolutely uncalibrated instrument" (p. 1). Six decades later the comments of Milton and Edgerly (1977) echoed Finkelstein's: "The subject of grading is laden with prejudices, dogmas, and unfounded opinions, and for many years it has tended to provoke very unscholarly pronouncements (p. 44).

In more recent years, educational researchers' criticisms of current grading policies and practices reflected similar concerns about the lack of consistency exhibited
by teachers in their grading practices. Studies in the past 20 years have indicated repeatedly that there is considerable variation among teachers in their grading purposes and practices. One key finding has been that teachers believe it is important to combine non-achievement factors such as effort, ability, and conduct with student achievement to determine grades (McMillan \& Workman, 1999). A study by Cross and Frary (1996) revealed that substantial majorities of teachers base their students' grades on nonachievement grading factors like effort, growth, interest, or student participation. Brookhart (1991) described this result as a "hodgepodge grade of attitude, effort, and achievement" (p. 36).

The result has been confusion among the receivers of grades regarding just what grades mean. Cizek, Rachor, and Fitzgerald (1995) concluded from their study of teachers' assessment practices that it is uncertain that any constituency, administrators, parents, students or teachers, can discern the meaning of the grades students receive. McMillan and Workman (1999), noting that a teacher's philosophy of teaching and learning is the most salient factor that provides justification for these practices, asked, "Is it desirable or acceptable to maintain a private, idiosyncratic approach to assessment that results in such wide variation?" (p. 62).

Numerous researchers have sought to discover why many teachers employ practices that obscure the meaning of grades. One result of the insufficiency of formal teacher training in assessment, Stiggins (2002) argued, is that educators may be mismeasuring student learning on a national scale. Brookhart's (2001) research revealed that teachers lack expertise in test construction and are not trained in the use of valid grading procedures. A number of studies on grading concluded that teachers base their
students' final grades on an assortment of non-achievement grading factors (Brookhart, 1991; Cross \& Frary, 1998; Quilter \& Gallini, 2000). McMillan and Workman (1999a) reported that teachers infuse what grading policies may exist at their schools with what they termed an idiosyncratic approach to grading.

While grading practices vary from teacher to teacher, the principles proposed by researchers and theorists emphasize alignment and consistency between purpose, practice, and policy in order to reduce variability in grading and assessment. Guskey (1996), Marzano (2000), Stiggins (2001), O’Connor (2002), and Brookhart (2009) concurred that the primary purpose for grades is to provide feedback to students and parents, that grades must be based on specific learning criteria, and that grades cannot serve multiple purposes. Specifically, non-achievement factors, such as effort and behavior, should be reported separately from academic achievement (Guskey, 2001; Marzano, 2000; O’Connor, 2002; Stiggins, 2001). Moreover, measurement specialists have pointed out that certain common practices lead to variability in grading, including the practices of averaging scores to determine grades, using zeros on one-hundred-point scales, and lowering students' grades because of behavioral infractions (Guskey \& Bailey, 2001). Marzano (2000) noted that another reason for variability in grading is that teachers weigh assessments differently.

Variations in teachers' grading practices reduce the reliability of grades as communications of students' levels of learning and diminish the dependability of grades to guide adjustments in instruction to address individual students' learning needs (O’Connor, 2002; Stiggins, 2001). Black and William (1998) wrote, "Teachers'
feedback to pupils seems to serve social and managerial functions, often at the expense of learning functions" (p. 4).

Students clearly understand the role that grades play in determining their futures. The message that students come to understand in the course of their studies is that their grades are commodities that can be acquired through manipulation of points (Guskey, 2001; Winger, 2005). In addition, rather than serving as a language to communicate the level of understanding or skills-acquisition a student achieves, teachers too often use grades as tools for behavioral modification (Baron, 2000). Enhancing student learning, then, becomes a by-product of the process, not the focus.

For students who struggle in school, grades are not communications carrying information to guide students and teachers, but are judgments of the students' inadequacies (Black \& William, 1998). Students who master material late in a term may find their grade depressed by previous marks that no longer indicate their level of learning (Marzano, 2000). As a consequence, the notion that receivers of grades perceive them to be accurate indicators of student achievement may not be accurate. This has potentially damaging consequences for students, especially those who struggle academically.

For all high schools, any integral component of student learning requires close examination when its validity or reliability is questioned. For Catholic high schools in particular, with their historic mission of service to those in need, such an examination is urgent. The Church has recognized the need for its schools to change to meet the changing needs of their students. The United States Conference of Catholic Bishops asserted in its 1973 pastoral message, To Teach as Jesus Did, "The school of the future,
including the Catholic school, will in many ways be very different from the school of the past" (p. 35). Fifteen years later, the Congregation for Catholic Education (1988) called Catholic schools to examine their educational goals annually "on the basis of experience and need" (p. 53). One of the new realities of Catholic education is the recognition that students with special needs must be served by Catholic schools. These students not only include those with learning disabilities, they also include any struggling student.

Disproportionately, these students come from socially and economically disadvantaged backgrounds. McDermott (1997) exhorted Catholic schools to "use research to identify the new needs of students today and to find new techniques and methodologies to meet these needs" (p. 33).

One critical aspect of every student's academic experience is grading. However, despite such calls for examination and innovation, this researcher could find no studies that explored the practice of grading in Catholic high schools. Grading practices that miscommunicate student learning can negatively affect student learning. For students who struggle, an unintentional consequence of some grade-reporting practices may be to drive students most in need of education away from schools. Inaccurate grading practices work against all students, particularly those most in need. For all educators, but particularly for teachers in Catholic schools committed to social justice and educating the disadvantaged, the need for grading reform is urgent.

In calling Catholic schools to excellence, Porath (2000) asserted, "Seeking to be the very best academically is not a distraction from the school's purpose. Rather, not to be the very best in its academic programs is to deny the Catholic school's essential character and role of progress in the future" (Youniss, et. al., p. 236). Uncovering the
practices and policies that Catholic high-school teachers commonly employ in determining their students' grades fills an important gap in Catholic education. Critically examining why and how teachers grade students provides insights into how Catholic schools can better serve all their students. It contributes to a knowledge base that will inform Catholic high schools so that each student receives accurate feedback to enhance their learning. Certainly, it reveals for Catholic high-school educators how closely aligned teachers' and schools' grading purposes are with the practices their teachers employ in determining students' grades. More specifically, this study can assist Catholic high-school educators to identify the effects that grading policies and practices have in supporting all learners, especially those who struggle because of learning disabilities or because of economic or social disadvantage. In this regard, it is a matter of social justice.

## Conceptual Framework

Guskey $(1996,2001)$ proposed five points to guide teachers in reporting student learning consistently: 1) grading and reporting are not essential to instruction; 2) no one method of grading and reporting serves all purposes well; 3) grading and reporting will always involve some level of subjectivity; 4) grades have some value as rewards, but no value as punishments; 5) grading and reporting should always be done in reference to learning criteria, never "on the curve" (pp. 17-18).

From these five points, Guskey (1996) recommended that schools abide by three guidelines to ensure grading that is fair and useful to students, parents, and educators: a) develop a clear statement of purpose addressing why grading is done, for whom the information is intended, and what the desired results are; b) provide accurate descriptions
of what students know and can do that receivers of information can understand; and c) use grading and reporting methods to enhance, not hinder, teaching and learning. Guskey (2001) later noted that this third guideline highlights a major obstacle to reform, as it requires the elimination of some common practices that teachers have employed for decades. These practices include averaging scores to obtain a student's grade, assigning a score of zero to work that is late or not submitted, weighting assessments differently from teacher to teacher, lowering grades because of behavioral infractions, providing extra credit opportunities that do not provide evidence of achievement of learning outcomes, grading on a curve, and giving group grades in cooperative learning environments (Brookhart, 2009; Guskey, 2001; Marzano, 2000; O’Connor, 2002;

Stiggins, 2000).
As part of this framework, Guskey separated the most common learning criteria used for grading and reporting into three categories: product, process, and progress, which he recommended be reported separately to ensure clarity of communication.

Product criteria are favored by advocates of performance-based approaches to teaching and learning...[T]hey focus on what students know and are able to do....Process criteria are emphasized by educators who believe...grading and reporting should reflect not just the results, but also how students got there....Progress criteria are emphasized by educators who believe it is most important to consider how much students have gained from their learning experiences...Teachers who use progress criteria look at how far students have come, rather than where they are [author's italics] (p. 19).

Most researchers and measurement specialists recommend the use of product criteria (Brookhart, 2009; Marzano, 2000; O’Connor, 2007; Stiggins, 2001; Wormeli, 2006). Marzano (2000) explained that the most important purpose for grades is to provide feedback to students and parents, and the best referencing system for grading is
content-specific learning goals. Guskey and Bailey (2001) argued that teaching and learning are facilitated by grading methods that are rooted in clear learning outcomes and when meaningful information about students' achievement is communicated to students, parents, and others. Grading in such an environment serves diagnostic and prescriptive purposes to enhance student learning.

Guskey's three guidelines and his product, process and progress learning categories provided the lens that this researcher used in examining the data gleaned from the two surveys. The framework provides context for examining what teachers do when they determine grades, and for examining what teachers and administrators, as school leaders, expect grades to communicate.

## Research Questions

1. What grading practices do Catholic secondary-school teachers currently employ in determining their students' grades?
2. To what extent does academic achievement comprise the grades Catholic highschool teachers report for their students?
3. To what extent are Catholic secondary-school teachers' grading practices consistent with their expressed purposes for grading?
4. To what extent are Catholic secondary-school teachers' grading practices consistent with their school's purpose for grading?

## CHAPTER II

## REVIEW OF THE LITERATURE

## Restatement of the Problem

The purpose of this study was to identify the practices Catholic high-school teachers employed in determining their students' grades. The study investigated the extent to which academic achievement comprised the grades teachers report, and the extent to which teachers' grading practices are consistent with their expressed purposes for grading. Finally, the study explored the extent to which teachers' grading practices are consistent with their respective school's purpose for grading.

## Organization of the Review of the Literature

This review begins with an overview of social, political, and economic developments in the past quarter century. These developments have changed the expectations placed on American high schools and have compelled educators to call for the adoption of grading policies and practices that report student learning clearly and accurately. The next section is an analysis of why grading clearly and consistently is a difficult task and an explanation of how it easily results in confusing and inconsistent communications of student learning. The third section in this review is a brief overview of the evolution of grading and reporting in American high schools and a summary of key literature from the previous century that identified concerns with grading and reporting. Next, a conceptual framework for appropriate policies and sound practices regarding grading and communicating about student learning will be presented. The final section is comprised of a review the literature on grading policies and practices employed by
teachers. This section includes eight parts: a review of literature on the purpose of grades, various groups' perceptions of what grades mean, the level of guidance provided by school or district grading policies, sources of teachers' beliefs about grading, problematic grading practices, the effects that teachers' grading practices have had on the validity and reliability of the grades they report, the impact of classroom realities on teachers' grading decisions, and the level of pre-service and in-service training in assessment and grading that teachers receive.

Calls for Grading Reform to Enhance Student Learning
Beginning with the publication of $A$ Nation at Risk (National Commission on Excellence in Education) in 1983, numerous reports have called for substantive reform in American education. A series of reports and books followed A Nation at Risk, including Prisoners of Time (National Education Commission on Time and Learning, 1994), Breaking Ranks (National Association of Secondary School Principals, 1996), and The World Is Flat (Friedman, 2005), each asserting that American students' academic preparation was inadequate to meet the changing demands of an increasingly global economy or to produce a sufficiently informed and engaged citizenry. These emerging global and domestic developments compelled American schools to initiate comprehensive K-12 reforms. The cornerstone of the school improvement movement was the adoption of content and performance standards as the means to ensure that all students received a rigorous and relevant education. The expectation that public schools establish challenging standards and report student achievement on the standards was codified in 2002's federal No Child Left Behind Act (The Elementary and Secondary

Education Act of 2001), which required states to adopt standards. In 2007, Iowa became the last of the 50 states and the District of Columbia to adopt standards for their public schools. Reeves (2004a) characterized a key change that standards-based education was intended to bring: "The widespread practice of teachers defining curriculum and choosing not to teach critical subjects based on little more than their personal preference will, in a standards-based school system, go the way of the dodo bird" (p. 3).

Though the changes initiated by the standards movement have been in process for two decades, the benefits of standards-based education have not been fully realized. There is nearly universal agreement that educational reform must move beyond the adoption of standards-based curricula to include improvements in instruction, assessment, and the methods of communicating student learning (Guskey, 2005; McMillan \& Workman, 1998; Reeves, 2004; Winger, 2005). In 2004, the National Association of Secondary School Principals emphasized the benefit for individual students that the reform movement had not yet produced:

Public high schools in the United States are at a crossroads. Federal and state legislation have established benchmarks intended to improve achievement for all students - including those who in the past were accepted as part of the 'normal' failure curve" (p. xiv).

Thus, in the wake of the adoption of standards came a growing consensus among researchers that schools must not only improve what and how students learn, but how learning is measured and communicated (Allen, 2005; Cizek, 1996; Cross \& Frary, 1999; McMillan, 1999; O’Connor, 1999; Wiggins, 1996; Winger, 2005). "To bring about significant improvement in education," Guskey (2005) asserted, educators must "translate standards into specific classroom experiences that facilitate student learning and ensure that classroom assessments effectively measure that learning" (p. 32). Stiggins (2001), a
leading voice in assessment and grading reform, explained how the changing mission of American schools drove not only the adoption of standards but compelled changes in the ways that schools measure and report student achievement. He argued that schools in earlier generations were considered effective if they could dependably rank students, but by the 1990s societal pressures caused a shift in schools' mission. High achievement for each student was the new expectation, and its implication for grading practices required teachers to assess and grade accurately.

## The Challenge of Grading

There is no consensus for grading and reporting student learning, nor is grading an objective practice. Grading is a complex professional judgment of student academic performance (Carlson, 1993; Cizek, 1996; Lambating \& Allen, 2002; Marzano, 2000; Wiggins, 1996). Complicating this is the fact that there is not a commonly shared understanding of how to assess student learning or to report that learning with a letter grade or similar symbol. Stiggins (2002) discovered that, as of 2002,
only about a dozen states explicitly require competence in assessment as a condition to be licensed to teach...[and] almost no states require competence in assessment as a condition to be licensed as a school principal or administrator at any level" (p. 762).

While all 50 states have developed detailed content and performance standards, they have not been similarly prescriptive regarding the practice of grading. McElligott and Brookhart (2009) reported that most states do not define "grade" or "grading." Rather, they asserted, states delegate to local school boards the task of defining grades and grading. Regarding grading, the courts have applied the doctrine of "academic abstention," in which judges defer to schools and universities disputes involving purely
academic matters. "The Supreme Court characterized grading and related academic issues as requiring 'an expert evaluation of cumulative information...not readily adapted to the procedural tools of judicial...decision making'" (Zirkel, 2007, p. 319).

The importance of grades in American society is indisputable. Grades are used by various constituencies to make important decisions regarding students' educational, financial, and professional futures (Office of Research and Development, 1998). School administrators use them to bestow academic honors on students, to establish student eligibility for participation in interscholastic athletics, to determine students' admission into academic programs, and to evaluate the effectiveness of instructional programs and teachers. Colleges and universities, of course, consider students' grades heavily in their admissions decisions (Guskey \& Bailey, 2001). Not surprisingly, students recognize that high grades improve access to greater educational, social, and economic opportunity.

Laden with such value by so many different constituencies, there remains much confusion about the meaning of grades and their reliability in communicating levels of student achievement (Baron, 2000; The College Board, 1998; Schaffner et al., 2000). Among high-school teachers, students, and parents, there are discrepancies in their perceptions of what grades communicate. Baron (2000) studied the congruity of the meaning of grades between the senders of grades and the receivers of grades. 60 teachers, 48 high-school students, 41 parents of high-school students, 115 high-school counselors, and 46 college admission staff members completed a questionnaire. Results revealed that each group believed achievement to be the highest of eight factors, though teachers include non-achievement factors in their grading. Importantly, the study found that teachers define grades differently than students and parents, placing the validity of grades
in question. Even at the elementary level, misunderstanding exists. Waltman and Frisbie (1994) selected 16 Iowa elementary schools, representative of the diversity of Iowa school districts in terms of population size and achievement level, to study whether parents of students interpret mathematics grades to have the same meaning as the teachers who assigned them. Questionnaires were completed by 285 parents, $83 \%$ of whom were women, from which the researchers drew their data. In their conclusion they described school-to-home communication as "muddled." Responses from teachers and their students' parents indicated substantial variability among parents and "an intolerable level of inconsistency between teacher and parents in the way grades from a given classroom are interpreted" (p. 223).

A study by Guskey (2007) compared different stakeholders' perceived validity of fifteen different sources of evidence of student learning to determine the quality of student performance. He surveyed 139 administrators, including superintendents, district administrators, program directors, principals, and assistant principals, and 175 elementary-, middle-, and high-school teachers, special educators, and counselors. All were chosen from three states that have implemented state-wide assessment programs with high-stakes consequences for both educators and students. Deriving his results from a single one-page questionnaire, he analyzed the data by the different educator subgroups to determine if differences existed among them. Guskey reported both administrators and teachers generally agreed on the relative trustworthiness of most sources of evidence. Classroom measures such as portfolios, observations, teacher-developed assessments, exhibits and reports, and writing assignments were ranked as among the most reliable sources; grades were ranked thirteenth by administrators and eleventh by teachers.

Guskey concluded, "Neither administrators nor teachers perceive grades to be a particularly accurate or trustworthy indicator of what students know and are able to do" (p. 22). He noted that nonacademic factors like attitude, participation, and behavior were ranked above grades.

Many teachers use grades for multiple purposes: to communicate academic achievement, to motivate students, to enforce student attendance, and to modify student behavior (Cross \& Frary, 1996; McMillan \& Workman 1999; Pilcher, 1994). Mixing factors like effort, ability, and conduct with academic achievement into a single symbol nullifies the symbol's ability to clearly communicate about any one aspect of a student's education (Allen, 2005; Baron, 200; Marzano, 2000). "According to current measurement theory," Brookhart (2009) wrote, "this is a recipe for disaster" (p. 24).

Despite a large body of longstanding research identifying problems with the way teachers grade, much in teachers' practice of grading has not changed. Grading is a complex process that requires careful use of information that is derived from various sources. This study was designed to provide Catholic high-school educators with accurate descriptions of how and why grades are determined in their schools so that they can improve their service to their students.

## The Origins of Grading in American Schools

Grading is rooted deeply in prior practice, but those practices were not consistent, nor were they rooted in research. They first developed in higher education, likely imitating systems employed in European universities (Brookhart, 2009; Marzano, 2000). Durm (1993) traced the history of grading in American colleges back to the late
eighteenth century and concluded that, though colleges from their inception had some method of evaluation, there was no standard. He reported that by 1775 various types of grading scales had been used in American colleges, and that in 1780 Yale University adopted a four-point scale that was likely the precursor to the current system. In the 1800s, grading systems ranged from pass-fail to 100-point scales. In 1877, Harvard classified students into six divisions. In 1897, Mount Holyoke adopted a letter-grade system that included descriptive adjectives, percentages, and letters (A-B-C-D-E). Since that time, grades, whether as letters or numbers, have become the dominant method of reporting student learning. Today, $91 \%$ of high schools report using A-F or an equivalent numeric grading scheme in reporting student learning (The College Board, 1998).

During the late 19th century, American high schools adopted grading and reporting procedures. Prior to 1850 , grading and reporting were virtually unknown in American schools (Guskey \& Bailey, 2001). Between 1870 and 1910, the number of public high schools in the United States grew from 500 to 10,000 . Instruction was separated into discrete subject areas. Elementary schools continued to employ narrative reports to communicate student learning, but high school teachers adopted percentages and other systems to communicate levels of student learning (Brookhart, 2009). In these early systems are found the origins of contemporary grading systems which have raised alarm in the literature today (Kirschenbaum, Napier, \& Simon 1971).

## A History of Concerns

This current body of literature is only the latest wave of research calling attention to problems with grading in American schools. In fact, educational researchers have
raised concerns about inconsistent grading practices since the early 20th century. In 1913
G. M. Whipple, editor of I. E. Finkelstein's The Marking System in Theory and Practice
(1913) for Cornell University's Educational Psychology Monograph series, wrote,

When we consider the practically universal use in all educational institutions of a system of marks, whether numbers or letters...we can but be astonished at the blind faith that has been felt in the reliability of the marking system. School administrators have been using with confidence an absolutely uncalibrated instrument" (p.1).

In 1913, Starch and Elliott, looking to determine subjectivity in grades that teachers assigned to students, studied the reliability of grading of high-school examination papers in English, geometry, and history (Starch, 1916). They discovered that scores reported by teachers from different schools, grading an identical English paper, ranged from 64 to 98 on a 100-point scale, and on a second identical paper ranged from 50 to 97 . They concluded that grades for any paper were unreliable. Similarly, grades for a history exam were similar to the English paper's results, and a geometry exam's grades resulted in even more variation than the English paper's grades. As a remedy to this unreliability, Starch advocated developing a standard scale in which "only seven division points are distinguishable" for measuring academic efficiency (p. 10).

As the 20th century progressed, interest in "scientific measurement" of individuals' "intelligence quotient" (IQ) through the use of standardized testing and normal curve theory led to an increase in the use of norm-referenced grading. At this time, competing schools of thought first emerged which vied to influence the structure of American society through its schools: those who hoped to use testing to expand educational opportunities to more students, and those who believed testing could sort out
the student population on the basis of test results like IQ tests (Lemann, 1999). Lemann wrote, "The idea of IQ testers was not to reform education...so much as to reserve it for highly intelligent people, as indicated by IQ scores, lest their talents be wasted" (p. 24). From this latter movement, norm-referenced grading, or "grading on a curve," in which a set of students was evaluated in relation to other students within a class or across a segment of a population, gained in popularity. Grading on a curve was deemed appropriate because the distribution of students' intelligence test scores approximated a normal probability curve and relieved teachers of having to identify specific learning criteria (Guskey, 2001).

Throughout much of the 20th century there was no consensus regarding a standard for grading. A number of marking systems were used, including ranking, the normal curve, percentage system, and absolute standards. (Brookhart, 2009). Pass-Fail systems were employed in some schools, the "mastery approach"-in which student mastery of a content or skill was all that mattered-was used in others, while grades were abolished in a number of schools. Odell (1930), a professor of education at the University of Illinois, Urbana, argued that grades be retained and made as accurate as possible. He asserted that the primary flaw of grades was their subjectivity and unreliability, which was a result of teachers basing grades on different factors and various standards. He asserted that grades "should be as nearly as possible a mark of absolute achievement and not involve factors such as intelligence, interest, attitude, effort, and so forth" (p. 461). At the same time, Odell advocated that the distribution of marks should consider the normal curve in order to improve accuracy.

A study by Eells (1930a) echoed concerns over the lack of consistency in grading. In 1930 he used 61 teachers from his course in tests and measurement at Stanford University to grade a set of grammar school geography and history papers, then re-grade those same papers eleven weeks later. He reported that the results showed "an astonishing lack of agreement in judgment of the same material by the same teachers" (p. 50). Describing the results as "little better than sheer guesses" (p. 52), Eells proposed the adoption of a five-point grading system using a standard distribution "of A-B-C-D-E grades of 6-22-44-22-6 percents" in order to reduce grading error (1930b, p. 135).

In the 1940s and 1950s, the debate of whether to grade students in comparison to each other or on absolute standards persisted. While elementary schools moved toward implementing standards-based grading, high schools continued using norm-referenced grading, largely because college admissions decisions were based at least partly on highschool grades (Brookhart, 2009). In 1958, decades before the term "criterion-referenced grading" was coined, Downie (1958), echoing Odell's call for grading based on achievement, argued, that grades should be determined solely using evidence that reveals attainment of course objectives. Two decades later, criterion-referenced grading was a practice which Milton and Edgerly (1977) described as "an emerging model of grading" (p. 47). They asserted that evaluation frequently is not based on course goals and objectives, and that teachers do not give sufficient attention to the process of evaluation.

A lack of consensus regarding purpose and practices remained through the 1960s and 1970s. The era was one of student unrest, and it produced heightened student interest in grading. Brookhart (2009) noted that the grading policies and practices of that era were successful if their purpose was to select particular students for college admission
but inadequate if they were intended to communicate with parents a child's academic progress or to motivate students to do their best. In 1971, Kirschenbaum, Napier, and Simon published, Wad-ja-get? The Grading Game in American Education. In it the authors asked, "Is the traditional system of grading-the one most of us experienced throughout many years of schooling-the most educationally useful system of evaluation?" (p. 14). The authors proposed a two-track system, with students and teachers allowed to choose whether they would use grades or credit/no-credit, and with clear learning objectives shared at the beginning of the course.

With the advent of the standards era in the 1980s, recommendations about grading shifted away from being a function that ranked students to one communicating student achievement of instructional goals. Stiggins, Frisbee, and Griswold (1989) were among the first of this generation of standards-era researchers to raise concerns about the widespread use of non-achievement factors in assigning grades-a concern first raised in the 1920s. After a century, questions about how and why teachers grade continued to spark passionate debate among teachers as they produced equally pointed criticism among researchers. Marzano (2000) echoed the words of Finkelstein and Middleton from the early 20th century when he noted that today's system of grading, with scant research to support its continuation, is nearly a century old. He identified three key problems with this prevalent practice as it is employed:

It allows, and even encourages, individual teachers to include, at their own discretion, different non-achievement factors in the assignment of grades; it allows individual teachers to differentially weight assessment; and it mixes different types of knowledge and skills into single scores on assessments. (p. 13)

This study aimed to accurately identify what Catholic high-school teachers include in their grade determinations, how they weight various assessments, and how they combine their assessment results into a single score.

## Conceptual Framework for Grading

Stiggins (2001) defined grading as "the process of abstracting a great deal of information into a single symbol for ease of communication" (p. 412). Never an easy task, it becomes more challenging in a standards-based environment where alignment between grades and test scores is more closely scrutinized. A study by Welsh and D'Agostino (2009) of 37 Arizona elementary school teachers explored the practices these teachers employed in standards-based assessment environment. Using an interview protocol to determine the degree of alignment ("Appraisal Style Score") between teachers' grades and state standards-based assessments, they reported that the teachers, whose teaching experienced ranged from one to 30 years, used a wide variety of grading practices, often resulting in grades that did not align with standardized test results. Teachers whose Appraisal Style Score was high emphasized the importance of grading only on student achievement. Those who scored lower on the Appraisal Style included homework and effort in their grade determinations. The study underscored the challenge of implementing changes in grading practices despite repeated calls for reform based on the growing body of research on what works and what does not work (Brookhart, 2009; Guskey, 2009; Lambating \& Allen, 2002; Marzano, 2000).

Differences exist among researchers regarding details of a new grading system, but there is clear consensus in the literature that change is needed in the way teachers
grade and report student learning (Allen, 2005; Austin \& McCann, 1992; Baron, 2000; Boothroyd, McMorris, \& Pruzek, 1992; Brookhart, 1993, 2009; Guskey, 1996, 2009; Marzano, 2000, 2006; McMillan, 1999a, 1999b, 2000; Wormeli, 2006). Researchers have agreed that the policies and practices by which teachers determine grades must be guided by a clear purpose. O'Connor (2002) reported that most schools and districts do not provide their teachers with purpose statements for grading or with grading policies to guide teachers in determining grades. Rather, they do little more than establish grading scales-for example, an A is $90 \%$ to $100 \%$, B is $80 \%$ to $89 \%$. Similarly, Wiggins (1996) asserted that the primary problem in grading is the absence of clear points of reference in employing grades. O'Connor concluded, "What is needed are grading policies and procedures that provide the basis for a reasonable level of consistency between and within schools and that provide specific guidance for teachers at the classroom/grade book level (p. 210).

Studies support these assertions. One by Austin and McCann (1992) studied the grading policies and procedures in 144 school districts in an unnamed state. The study employed a content-analysis method in examining school board policy manuals, district guidelines, teacher handbooks, and math and English department guidelines. The researchers reported that there was considerable variation across districts regarding the purpose for which schools graded; that 46 of the 71 districts that supplied information about the criteria used in grading failed to provide a consistent picture of what criteria should be used; that 75 of 90 reporting districts asked teachers to apply multiple criteria when determining grades; that few districts, schools, and departments provided direction specific enough to ensure consistency in teachers' grading practices; and none of the 144
districts provided information about staff development to help teachers grade with consistency. The need for developing clear grading purpose statements, policies, and guidelines was obvious.

Guskey $(1996,2001)$ provided a framework to guide teachers in reporting student learning consistently and clearly. Guskey's framework (1996) proceeded from researchers' five points of agreement: Grading and reporting are not essential to instruction; no one method of grading and reporting serves all purposes well; grading and reporting will always involve some level of subjectivity; grades have some value as rewards, but no value as punishments; grading and reporting should always be done in reference to learning criteria, never "on the curve" (pp. 17-18). In building this framework, Guskey distinguished the most common learning criteria used for grading and reporting into three categories: product (what students know and are able to do); process (the habits and behaviors students adopt in learning material); and progress (how far students have come in the course of their studies).

Nearly every researcher and measurement specialist recommends the use of product criteria (Allen and Lambating, 2002; Baron, 2000; Brookhart, 2009; O’Connor, 2007; Wormeli, 2006). Allen and Lambating (2002) explored the perspectives of highschool students, high-school teachers, students in pre-service education programs, and university professors regarding how a high-school teacher assigns grades. They expressed unequivocally that the purpose of grades is to communicate a valid and reliable summary of a student's academic achievement. They asserted, "As a single letter or numeric mark, the reported grade must communicate a single factor about the student if it is to be a valid or accurate source of information" (p. 3). This echoed Marzano, (2000) who wrote, "The
most important purpose for grades is to provide information or feedback to students and parents [and] the best referencing system for grading is content-specific learning goals: a criterion-referenced approach" (p. 23).

Beyond establishing clear criteria and reporting on them separately, Guskey (1996) recommended three guidelines to ensure grading that is fair and useful to students, parents, and educators: develop a clear statement of purpose addressing why grading is done, for whom the information is intended, and what the desired results are; provide accurate descriptions of what students know and can do that receivers of information can understand; use grading and reporting methods to enhance, not hinder, teaching and learning.

The third guideline, Guskey cautioned, presages a major obstacle to reform. "Developing an equitable and understandable system [of grading] will require the elimination of certain long-time practices" (p.21). These practices include averaging scores to obtain a student's grade, assigning a score of zero to work that is late or not submitted, weighting assessments differently from teacher to teacher, lowering grades because of behavioral infractions, providing extra credit opportunities that do not provide evidence of achievement of learning outcomes, grading on a curve, and giving group grades in cooperative learning environments (Marzano, 2000; O’Connor, 2002). Brookhart (1991) used the descriptor "hodgepodge" for the use of multiple criteria and methods that teachers employ to determine grades. The body of research suggests that the current state of assessment is little different than it has been for decades. This study's purpose, then, was to discover the current purposes and practices employed specifically by Catholic high-school teachers and evaluate the extent to which those teachers'
practices are aligned with the respective purposes for grading that they and their school administrations express.

Review of the Literature on Grading Practices and Their Consequences
Numerous studies over the past two decades have called for educators to clarify the purpose for grading and to only employ grading methods that serve that purpose. The scope of these studies covers numerous aspects of the grading and reporting process.

## Purpose of Grading

Guskey \& Bailey (2001) identified six major purposes for grading and reporting:

1) to communicate achievement status of students; 2) to provide incentives for students to learn; 3) to provide students with information for self-evaluation; 4) to select students for certain educational paths or programs; 5) to evaluate the effectiveness of instructional programs; and 6) to provide evidence of students' lack of effort or inappropriate responsibility (p. 51).

While the literature has urged consistently that the primary purpose of grades should be to communicate the achievement status of students, studies have found that substantial numbers of teachers employ practices that do not serve these purposes. A survey of 536 randomly selected Virginia public high-school teachers by Frary, Cross, and Weber (1992) explored practices and opinions regarding aspects of classroom testing and grading. The researchers' cluster analysis identified a small group of teachers whose opinions were consistent with what measurement specialists recommend. However, opinions of five other cluster groups, including disproportionate numbers of mathematics
and science teachers, were extremely diverse. Results indicated that large proportions of teachers hold opinions and employ grading practices that run counter to what many measurement specialists recommend.

Austin and McCann (1992) conducted a study of grading procedures in 144 school districts in an unnamed state. The researchers performed a thematic analysis of school board policy manuals, district guidelines, teacher handbooks, and department guidelines to discover how local policies and procedures vary with respect to grades' purposes, practices, intended audiences, criteria for calculating grades, governing-body directives, and staff development regarding grading practices. The results revealed considerable variation in methods of determining grades, scant guidance for teachers to ensure consistent grading, and little professional development to improve grading. Moreover, the study found that clear understanding of what grades mean did not exist between senders and receivers.

Researchers have discovered disparities in the perceptions of students and parents about the meaning of grades. Pilcher (1993) employed six case studies chosen from five high schools, consisting of a student, his or her parent, and his or her English and mathematics teachers, to investigate how grades were assigned by teachers and used by students and parents. Subjects were selected for gender balance and as representatives of low-achieving, average, and above-average groups. Pilcher interviewed subjects and compared responses within each student-parent-teacher unit. Gradebooks and report cards were analyzed to verify subjects' perceptions. Pilcher reported that discrepancies exist between parents' and teachers' perceptions of grades. Parents perceived that grades
reflected their child's achievement level, while teachers reported that they made inferences about attitudes of students, including effort, when assigning grades.

Despite general agreement that the primary purpose of grades should be to communicate academic achievement, the literature has revealed that teachers mix nonachievement factors to determine grades to reflect effort and achievement and to motivate students (Cizek et al. 1995; Cross \& Frary, 1996; Stiggins et. al., 1989). Cross and Frary (1996) examined teachers' grading practices by surveying 310 middle- and high-school teachers and 7,367 middle and high school students from one school system using two separate surveys. Substantial majorities of teachers reported employing grading practices that mixed achievement with non-achievement evidence. Moreover, students confirmed and supported the practices of their teachers. While acknowledging the value of reporting on students' process-oriented habits as part of developing the "whole child," the researchers concluded that grades should communicate the teacher's judgment of each student's level of educational achievement. "We believe the measurement community has an obligation to help...teachers appreciate the need to make a clear distinction between measured academic achievement and their perceptions of the 'whole child"" (p. 2). Thus, Cross and Frary joined the chorus of contemporary measurement specialists. In serving multiple purposes, a single symbol must carry many types of information in the grade, and doing so makes it difficult to understand what grades mean.

## Perceptions of Grading by Different Groups

Given the multiple purposes that grades are intended to carry, it is not surprising that confusion exists among students, parents, teachers, administrators, and other
stakeholders regarding the meaning of grades. Guskey (2007) sought to determine the degree of consensus that existed among teachers and administrators regarding the validity of various indicators of student learning. He surveyed 314 educators in three states, all of which had implemented comprehensive state-wide assessment programs with high-stakes consequences for students and educators. The study revealed that administrators considered nationally normed tests as more valid indicators of student achievement than did teachers, while teachers gave more validity to classroom observations and homework completion and quality. Grades received low rankings by both administrators and teachers, suggesting that neither group perceived grades to be trustworthy indicators of student achievement. "Neither administrators nor teachers perceive grades to be a particularly accurate or trustworthy indicator of what students know and are able to do" (p. 22).

Other studies have indicated that the confusion may be complicated by students' and parents' comfort with habit. Cross and Frary's (1996) study revealed that majorities of teachers reported employing grading practices that include non-achievement factors and that students and parents both endorse these "hodgepodge" grading practices by their teachers. The researchers surmised that, despite the fact that these grading practices were at variance from practices widely recommended by measurement specialists, students and parents understood that grades represented a mixture of achievement and nonachievement factors and were resigned to that fact. As a result, measurement specialists may be failing in their efforts to communicate their recommendations to teachers, school administrators, and the public. The current study, by identifying the practices teachers employ in determining students' grades, will illuminate for teachers and administrators
what can be done so that grades communicate student learning more clearly and accurately.

## Absence of Policy, Wide Latitude

The varied purposes for grading are not the only causes of confusion. Cizek's (1995) survey of 143 Midwestern elementary and secondary school teachers from a variety of educational settings sought to discover their classroom assessment practices. He collected data on frequency with which teachers assign assignments and tests, the types of marks they used to report student performance, the methods used to combine marks, the source of classroom tests, the meaning of grades, and teachers' knowledge of district policies and those of their peers. His results revealed that teachers' grading practices vary widely and unpredictably. While $89 \%$ of the teachers used academic achievement in determining grades, $51.5 \%$ included individual students' ability, 43.4\% considered performance of entire class, and $41.9 \%$ considered student effort. Moreover, $52.2 \%$ used other measures, such as attendance and class participation, and $61 \%$ used non-achievement factors like teamwork. Cizek attributed some of this variation in grading to the fact that teachers and administrators often entered teaching without systematic training in assessment.

In addition to variability in grading practices, Cizek's study discovered wide variability in the number and types of assessments. While teachers use on average 21 marks to determine a grade, one teacher reported using as few as three assessments while another administered 39 (Cizek, 1995). Finally, a large percentage of teachers reported that schools do not have formal grading policies. Among those that do "Teachers...
candidly admitted they ignored district grading policies; several who acknowledged that they were unsure about what their colleagues did vis a vis assessment and grading also indicated that they preferred it that way" (Cizek, 1995, p. 23).

Cicmanec, Mauck, Johansen, and Howley (2001) administered survey data from 230 Ohio public school teachers in order to explore the association between teachers' practice of assigning grades based on non-achievement grading factors and teachers’ concerns about classroom management, or pupil control orientation. They reported that the methods used by teachers to assign grades tended to be inconsistent regardless of the presence of school district grading policies and that teachers used non-achievement factors to control student behavior. The researchers concluded that grades were used as a tool to motivate, praise, reward, and punish students.

The College Board's (1998) examination of high school grading policies revealed that teachers generally have had a great deal of flexibility in assigning grades, which has served to render grades less reliable. It found that general grading policies had been set by only $6.6 \%$ of schools and stricter grading policies had been set by $3.5 \%$ of schools (p. 2). Given the large number of teachers who reported having "substantial flexibility" to determine grading standards, the College Board concluded that it is difficult to evaluate students' grades without understanding the purposes individual teachers and their schools have adopted to guide teachers in determining grades.

One result of this situation is a concern over grade inflation. From 1987 to 1998, The College Board reported that the population of students self-reporting GPA's of A+ through A- grew from 28 to 37 percent while SAT scores fell an average of 13 points on the verbal test and 1 point on math. Ziomek and Svec (1997) collected data from ACT's
student history files from 1988-89 through 1993-94. Only public schools in the United States that had at least 30 ACT-tested students for each of the five years were used in the study. In all, 5,136 public high schools, totaling an average of 530,000 student records per year, were tracked. They concluded that grade-point averages had risen without a similar increase in achievement as determined by standardized test scores.

Similarly, Woodruff and Ziomek (2004), using marginal and conditional analyses, investigated inflation in high school grade-point averages (GPAs) by measuring students’ self-reported GPAs in 23 courses to their ACT Assessment scores from 1991 to 2003. They reported that, depending an the subject area, high-school grade-point averages increased by an average of 0.20 and 0.26 on a four-point GPA scale without a concomitant increase in achievement as measured by the ACT (p. 8). This is important because wide variation in grading policies and practices may carry deleterious consequences for students, particularly for economically disadvantaged students. The Office of Educational Research and Development (1994) reported that B students in highpoverty schools had about the same standardized test scores as did students receiving D or lower in schools with the lowest concentrations of poor students. C students in poorest schools had the same test scores as failing students in the most affluent schools. The negative educational and social consequences of inaccurately communicating student achievement of those students with the least educational resources are evident.

Research on the presence of grade inflation is inconclusive. Still, Bracey (1994, 1998) posited that drop-out rates of low-performing, at-risk students resulted in grade distributions that excluded the lowest performing students' grades. Moreover, if at-risk students drop out to avoid the negative effects of low grades, an unintended result of
commonly employed grade-reporting practices may be to push students most in need of education away from schools. Inflationary and inaccurate grading practices work against all students, particularly those most in need, and Catholic schools' mission of serving the underserved and disadvantaged can only be hindered by such practices. This study identified Catholic high-school teachers' practices and the extent to which those practices are aligned with teachers' and schools' stated purposes.

## Sources of Teachers' Beliefs

Guskey and Bailey (2001) reported that there are four sources of teachers' grading and reporting practices: The policies and practices they experienced as students; their personal philosophies of teaching and learning; district-, building, department-, or gradelevel policies on grading; what teachers learned about grading and reporting in undergraduate teacher-preparation programs (p. 17). In the absence of clear policies to guide them in the practice of grading, and given the paucity of training in assessment and grading that teachers receive in their professional training, teachers rely on their own philosophy of teaching and learning that provides justification for their practices, which are drawn from their own experiences as students (McMillan \& Workman, 1999). Cizek (1995) reported that there is a "success-bias" in most teachers; they want their students to be successful. He expressed concerns about teachers relying on their own philosophies of teaching and learning: "It is not at all clear that any interested group can confidently glean the meaning of grades students receive" (p. 22).

The conclusions of McMillan and Workman and Cizek were not alone. A study by McMillan and Nash (2000) studied the reasons teachers give for their assessment and
grading practices. The researchers interviewed 24 volunteer elementary and secondary mathematics and English teachers. Their analysis of the interview data identified six themes: teacher beliefs and values, classroom realities, external factors, teacher decisionmaking rationale, assessment practices, and grading practices. Their analysis revealed that teachers' personal philosophies of teaching and learning was a more prominent factor than any other factor, including district policies. Echoing Cizek, McMillan and Nash wondered whether teachers' desire for their students to succeed practices results in the adoption of practices whereby students can obtain good grades without really mastering the content or skill. If so, the result is miscommunication regarding what students know and are able to do, hindering students' education.

## Problematic Grading Practices

The varied personal philosophies that guide the way that many teachers' grade influences the particular practices teachers employ. Those practices include deciding what elements are considered in reporting a grade, as well as how to weight each element. The process of determining a grade, then, is a complex one subject to wide variability and subjectivity. Rather, grading is a subjective process, a professional judgment of student performance (Guskey \& Bailey, 2001; O’Connor, 2007). It is a process that research has consistently identified to be fraught with challenges.

Despite numerous measurement specialists advocating that grades be based on achievement, researchers reported that teachers regularly include other factors (Cizek et. al., 1996; Cross \& Frary, 1996; McMillan \& Workman (1999b). Brookhart (1993) surveyed 84 teachers, 40 of whom had received some measurement instruction, in order
to determine the meaning that they associated with grades, their value judgments, and the role of measurement instruction in their grading decisions. Results indicated that teachers mix product- and process-oriented information in determining grades. "Grades seem to be used in a kind of academic token economy, and they function in classroom management as the reward for work done" (p. 139). Interestingly, she reported that teacher training in educational measurement made very little difference in teachers' grading practices and suggested that teachers' dual roles as advocates and judges are not compatible. The literature on grading supports the notion that teachers believe it is important to combine non-achievement factors like effort and ability with student achievement to determine grades. (McMillan \& Workman, 1999b; Truog \& Friedman, 1996). The practice is widespread, and the inclusion of non-achievement factors, while common, is problematic.

## Non-Achievement Factors

The literature is replete with evidence of "hodgepodge" grading practices (Austin \& McCann, 1992; Brookhart, 1994; Cizek, 1995; McMillan, 1999). Stiggins (2001) echoed numerous researchers when he argued that aptitude, effort, compliance, and attitude have no place in an achievement grade and should be reported separately. "Attainment of specific achievement targets alone is valid in a standards-based environment" (p. 417). Cross and Frary (1996), however, discovered numerous practices that ran contrary to recommendations of measurement experts and validated the findings of earlier studies. Their study of 310 middle and high school teachers revealed that $80 \%$ of teachers reported that they would consider student growth in determining a final grade,
even though "growth measures are notoriously unreliable" (p. 4). Seventy-two percent of teachers reported that they considered a student's ability in determining grades. In regard to student effort, they reported that $25 \%$ of teachers indicated that they raise grades for high effort "fairly often," though relatively few teachers lower grades for lack of effort among high-ability students (p. 5). Cross and Frary further reported that many teachers use grades to control student behavior. Thirty-nine percent of teachers reported taking conduct and attitude into consideration when determining report card grades. Similarly, $61 \%$ of teachers claimed that they used non-achievement factors like effort and teamwork.

Other studies supported reached similar conclusions about the use of nonachievement factors. Cizek (1995) reported that $41.9 \%$ of teachers considered student effort, and $52.2 \%$ of teachers used other formal achievement-related measures, such as attendance and class participation when grading students. Similarly, Truog and Friedman (1996), in an analysis of written grading policies used by teachers in a Midwestern high school, reported that high-school teachers included effort in grades to give a break to students receiving low grades. Anderson (1997) asked 147 student teachers to grade a constructed portfolio of work for a simulated student. Results of the teachers' grades showed that the contents of the portfolio accounted for $63 \%$ of the final grade, leaving $37 \%$ of the variance unaccounted for. In other words, teachers used some aspect of the student in grading that was not part of the portfolio. Many teachers in that study noted effort was an essential component in their evaluations.

## Assessment Practices Unrelated to Achievement

In addition to non-achievement factors, hodgepodge grading extends to the use of certain types of assessment practices that are unrelated to academic achievement but are commonly included in determining students' grades. These are homework, extra credit, work submitted late or plagiarized, and group work. Homework, Guskey and Bailey (2001) argued, falls under their "process" criteria; it is often intended as practice and marked by teachers only for completion. Kohn (2006) contended that there is a lack of research to support the belief that homework enhances student performance. Vatterot (2009) agreed: "Grades on homework often get in the way of learning, demotivate students, and create power struggles between students and teachers and between teachers and parents" (p. 112). Nevertheless, homework was found to be a common element in determining students' grades. Cross and Frary (1996) found that $27 \%$ of teachers reported homework had a strong influence on grades; $46 \%$ reported it had a moderate influence.

Several studies have concluded that the use of extra credit is problematic as well. An extensive, two-part study by McMillan and Workman (1990a, 1990b) Phase I was a survey of 921 elementary teachers and 597 middle, and 850 high-school teachers of science, mathematics, social studies, and English from seven school districts in the Richmond, Virginia, metropolitan area. Survey items included factors that teachers included in grades, including effort, improvement, performance, types of assessments used, and the cognitive level of assessments. Data analysis was primarily descriptive. Phase II was comprised of face-to-face interviews with 28 teachers using qualitative research design to investigate decision-making and justification for specific grading and
assessment practices. McMillan and Workman discovered that extra credit for nonacademic performance is used by teachers but contributes little to determining grades and that most teachers used extra credit mostly as a way to boost grades of students that may have been borderline (McMillan \& Workman, 1999b). This kind of use is deemed inappropriate because such assignments do not produce evidence of achievement of specified academic standards.

Frisbie and Waltman (1992), in their instructional module designed to assist teachers in developing defensible grading practices that effectively and fairly communicate students' achievement status, were critical of the practice of giving extra credit to compensate for low achievement. "Extra credit that simply allows students to compensate for low test scores or inadequate papers is not reasonable, especially if the extra work does not help them overcome demonstrated deficiencies" (p. 10). Stiggins (2001) noted the distorting effect of extra credit employed in this manner, and argued that grades must reflect what a student has learned, not how much work was done to accomplish the learning.

Measurement experts are in agreement regarding how teachers should grade assessments in which students did not follow teachers' policies. For assessments that are submitted after due dates and assessments in which students were found to have cheated, they recommended addressing the issues of achievement and discipline separately. Stiggins (2001) asserted that cheating ought not be punished by grade reduction if the purpose of grading is to communicate clearly. Guskey (2009) concurred. "No studies support the use of low grades as punishments. Instead of prompting greater effort, low grades often cause students to withdraw from learning" (p. 14). Instead, he recommended
considering such work as incomplete and then requiring it to be completed. Wormeli (2006) advocated recording two grades for such work, one for academic achievement and the other for process.

Finally, measurement experts call for caution in the practice of grading in a cooperative learning environment. O'Connor (2007) explained that the term "cooperative learning" implies that group activities are designed to be learning activities and any assessment of them should be, like homework, considered practice. Kagan (1995) agreed, "Group scores are so blatantly unfair that on this basis alone they should never be used" (p. 69). Including non-achievement factors in grade determinations muddles grades' ability to communicate; this is exacerbated when achievement information is inappropriately interpreted.

## Inappropriate Interpretation of Achievement Information

Literature on the methods by which teachers interpret and combine achievement information into a single grade highlights a number of inappropriate practices. These include the use of zeros, averaging scores to determine grades, grading on the curve, and the use of points to determine grades. On a five-point rubric scale (4-3-2-1-0), a zero is merely a minimum score. However, on a typical grade scale, where an $\mathrm{A}, \mathrm{B}, \mathrm{C}$, and D each has a 10-point range, an F in this scenario has a sixty-point range. Combined with the practice of averaging, the use of zeros artificially depresses student grades, rendering them inaccurate reflections of student learning. In brief, a zero is not a measurement of what a student knows or is able to do (Reeves, 2004b). Canady and Hotchkiss (1989), in their landmark 1989 essay calling for the end of grading's emphasis on sorting and
selecting students in favor of an emphasis on teaching and learning, concluded that zeros are typically assigned to punish students for not displaying appropriate effort or responsibility. Stiggins (2001) argued that in such a grading scale zeros misrepresent student learning and are unacceptable under any circumstances. Other measurement specialists recommended reporting an "incomplete" grade for work not submitted and for cases of cheating (Guskey, 1996; O'Connor, 2002).

Researchers are similarly united in their criticism of the practice of averaging scores to determine a student's overall grade. Wright (1994) suggested that median scores provide a more accurate summary than the mean. Others have argued that the most current evidence of student learning is more valuable, and averaging gives equal weight to evidence that may no longer be accurate (O’Connor, 2007; Stiggins, 2001). Marzano (2000) advocated emphasizing more recent evidence based on "the power law of learning." The power law of learning, so named because the mathematical function describing the trend can be described by a power function, raising the amount of practice to a power, is an apparently universal trend of rapid improvement in learning followed by lesser improvements with further practice, which suggests that a student's learning improves over time (p. 74). Averaging masks important aspects of learning.

Several other common practices have been identified as inappropriate or problematic in the last 20 years. Normative grading, more commonly known as grading on a curve, gained a following in the early part of the 20th century but has come under widespread criticism because grading students based only on how they compare with their peers fails to communicate what students know and are able to do (Brookhart, 2009; O'Connor, 2002). Bloom, Madaus, and Hastings (1981) explained that grading on a
curve is a practice that runs contrary to a primary goal of teaching, which is helping all students master their studies. They wrote, "There is nothing sacred about the normal curve....In fact, we may even insist that our educational efforts have been unsuccessful to the extent that the distribution of achievement approximates the normal distribution" (p. 52). Bracey (1994) asserted that grading by the normal curve imposes meaningless differences between students and communicates nothing about what students learned or are able to do. Krumbolz and Yeh (1996) argued that competitive grades turn educational priorities on their head. "Prestige is accorded to teachers who are unable to help most of their students learn the material. The situation is ridiculous" (p. 326).

Researchers have argued for more carefully and thoughtfully adopting methods of combining scores into grades when using a point system. A study by Feldman (1998) examined the grading practices of 91 high-school science teachers in three counties surrounding the University of Massachusetts, Amherst, and included urban, suburban, an d rural areas. Surveys and interviews were used to collect data about the types of assessments teachers used, the weight they gave each assessment, and the methods they used to determine students' grades. Feldman reported that a substantial fraction of teachers use point systems for calculating report card grades, keeping a detailed account of student work to control behavior and keep students on task. He described the use of a points system as a "token economy." "Point systems do not differentiate between task completion and learning. In fact, the point systems may reinforce the idea in students' minds that the purpose of schooling is the completion of tasks, rather than learning" (p. 14). Frisbie and Waltman (1992) described any grading method-total points or fixed percents-that requires arbitrary grade cutoffs as problematic. They characterized the
total-points method cutoffs as arbitrary and nearly meaningless. Marzano (2000) argued that the point system is appropriate if a teacher addresses only one topic within a grading period, but is insufficient to the task of tracking achievement on multiple topics. "Simply adding up points for correct responses and dividing by the total number of possible points is not evaluation, because no judgment is involved" (p.38). Inappropriate interpretation of assessment information reduces the ability of grades to be clear communications of student learning, specifically because they damage their reliability and validity.

## Reliability and Validity, Classroom Realities, and Teacher Training

The purpose of the current study was to identify the practices that Catholic highschool teachers employed in determining their students' grades, the extent to which achievement comprised the grades that they reported, and the extent to which teachers' grading practices are consistent with their own and their schools' expressed purposes for grading. A natural question arising from this inquiry is the reliability and validity of the grades teachers and schools report and what might affect their reliability and validity.

The literature clearly indicates that there exists a lack of concurrence between what measurement specialists recommend and what large proportions of teachers practice when they grade (Frary et. al., 1992; McMillan, 1999). McMillan and Nash's (2000) interview-based study of teachers' reasons for their assessment and grading decisions revealed that teachers' personal philosophies of teaching and learning were more important than any other factor, including district policies. Measurement specialists have noted that grades must be valid and reliable. Reliability refers to the consistency of assessment results, either when an assessment is rated similarly by different judges or
when the same assessment procedures used with the same student produce similar scores. Validity in grading refers to the appropriateness and adequacy of interpretations made from information derived from assessments. Both the information and the interpretation contribute to validity (Guskey \& Bailey, 2002). These qualities are essential in measurement, which is why the inclusion of non-achievement factors in a grade is problematic. They diminish a grade's validity.

While recognizing that teachers' practices are at variance from practices widely recommended by the measurement community, Brookhart (1994), in a meta-analysis of 19 studies on classroom assessment and grading, surmised that classroom realities hinder such alignment and that present recommendations for grading do not take into account the teacher's need to manage classrooms and motivate students. "Teachers are concerned about being fair and about developing student self-esteem and good attitudes for future student work." (p. 123). Cross and Frary (1996) noted that hodgepodge grading practices protect teachers from negative professional or social consequences, such as pressure from parents and administrators. A 2001 study by Cicmanec, Johansen, and Howley (2001) of 230 respondents from a randomly selected sample of 500 Ohio public-school teachers explored teachers' use of non-achievement factors to motivate, praise, reward, and punish students. The results led them to conclude that the context of the classroom-factors like class size and the percentage of at-risk students-contributed more to shaping teachers' grading practices than the teachers' desire to control pupils. They discovered that grades based on a higher percentage of non-achievement factors were positively correlated with higher percentages of at-risk students.

McMillan and Workman (1999) proposed that teacher training and induction is a necessary step to bring teachers' grading practices in alignment with recommendations of measurement specialists. They added that teachers have expressed interest in further professional development in assessment issues and techniques. Parkes and Giron (2006) were not hopeful that the two could be reconciled. They argued that the classroom is an overlap of many disciplines of which educational measurement is one. They analyzed a unit of instruction in a ninth-grade math class, with homework worth $35 \%$, tests worth $30 \%$, and in-class projects worth $35 \%$. Given the standards of reliability in grading, the researchers identified significant problems with their application in a classroom setting, concluding that reliability practices may not be practical in the classroom.

A study by Allen and Lambating (2001) revealed another challenge to teachers' adoption of valid and reliable grading practices. Four groups- 288 high-school students, 202 pre-service teachers, 81 practicing high-school and elementary teachers, and 34 school of education professors-deliberated a case study in which a mathematics teacher gave the class' most knowledgeable student (with a $98 \%$ test average) a B because he did not turn in homework. The student's parents wanted the grade changed to an A to reflect his mathematics knowledge. Most high-school students (92\%) believed the grade should not be changed. Most students agreed that sufficient effort had not been put forth by the student. This conclusion was consistent with that of the study by Cross and Frary (1996), which stated that students and parents accept that grades represent a mixture of achievement and non-achievement factors. Most of the practicing high-school teachers ( $88 \%$ ) and pre-service teachers $(86 \%)$ believed the grade should not be changed.

What Allen and Lambating (2001) found noteworthy was that over two-thirds (68\%) of the education professors opposed changing the grade. The reason given by nearly all the professors was that homework was a requirement. In other words, the students, high-school teachers, and a large majority of the education professors accepted the inclusion of a factor other than achievement. Principles of validity and reliability were violated despite the fact that, in the professors' case, they had been exposed to those principles. The study, the researchers concluded, highlighted the need to help teachers make good grading decisions based on measurement principles, primarily that there must be consensus that grades should be based only on academic achievement.

Despite the complexity of the problem, improved teacher training in grading and in assessment is where researchers believe the remedy to this problem will be found. Boothroyd, McMorris, and Pruzek (1992) studied teachers' measurement training and the extent to which their training is adequate to develop quality classroom tests. The researchers used a 65 -item test and interview protocol with 41 seventh and eighth grade science and mathematics teachers. They found that teachers' knowledge of principles of measurement was inadequate, probably due to insufficient training. The lack of sufficient training remained the case a decade later, when Stiggins (2002) reported that only about a dozen states explicitly require competence in assessment as a condition to be licensed to teach. The insufficiency of training appeared to be a reason for why teachers graded they way they did.

Brookhart (1999) argued that teachers need to know how to derive grades from valid information and that aspiring teachers' classroom assessment practices need to be developed in concert with the instructional repertoire and classroom management skills.

In addition, she concluded that teachers need training to assign grades in ways that maximize validity and reliability. Principles for high-quality assessment, like validity and reliability, must be applied to the classroom context directly. Otherwise, teachers may find that students disengage from learning. "Students may mentally dismiss an instructor who does not demonstrate understanding of the classroom assessment context as lacking credibility, thus lessening their learning and retention of material from the class" (p.2).

Instituting change in classroom teachers' assessment and grading practices takes significant commitment, but it can result in positive growth and change. Rogers and Riedel (1999) conducted a three-year longitudinal study on assessment and grading following 17 aspiring teachers from southern Virginia and North Carolina from their preservice education through their first year of teaching using a the same survey instrument each year. The researchers reported that teachers' conventional classroom assessment was done mostly by the use of tests and reporting was mostly by letter grades. They reported much confusion and frustration among educators of all levels regarding grading, and they perceived a need among the teachers for training to plan, teach, assess, evaluate, and report student progress while utilizing authentic teaching methods. Their study's survey results led them to conclude that a focused program of assessment and grading training of pre-service teachers benefited the study's subjects in the classroom, as they shaped assessment and grading philosophies which resulted in increased communication of students' academic performance.

Interestingly, some researchers have discovered that professional training in educational measurement may play a negligible role in affecting teachers' attitudes
toward assessment compared with teachers' personal experiences (Quilter \& Gallini, 2000). The many pressures that teachers face from students, parents, and administrators, may render measurement training useless unless it can provide a way to make teachers' jobs more manageable.

Given the complex challenges educators face in communicating student learning, this study was intended to make clear the grading practices employed by Catholic highschool teachers so that those practices can be analyzed in light of teachers' and administrators' expressed purposes for grading. This juxtaposition highlighted the extent to which grading practices and purposes in Catholic high schools are aligned.

## Grades, Feedback, and Student Motivation

A less quantifiable but nevertheless vital aspect of student learning affected by grades is student motivation, which is why teachers regularly identify motivation as a purpose for grading. Every student's performance is affected by their levels of engagement and motivation. For Catholic schools, which profess a special commitment to those who are disadvantaged and those who struggle, the effect that grades have on student motivation must be appreciated. More specifically, identifying the practices and purposes integral to the determination of grades can lead administrators and teachers to deeper appreciation of the need for accurate communication of student learning in order to better serve their students' needs.

Black and William (1998) reported that grades provide motivation and information that students can use to improve learning. Teachers are interested in fostering in their students a desire to learn, that is, developing students' intrinsic
motivation. Covington (1992) developed a "self-worth theory" of motivation on the assumption that "the search for self-acceptance is the highest human priority, and that in schools self-acceptance comes to depend on one's ability to achieve competitively" (p. 74). The second of his six guidelines for fostering motivational equality in the classroom was that grades should be an indicator and result of successful learning, not just participation. This approach produces self-efficacy, which Pintrich and Schunk (1996) defined as the extent to which students believe they are capable of successful performance on specific tasks.

The research indicates, however, that grades are not used to develop self-efficacy and intrinsic motivation. Pilcher (1994) reported that the interpretation of a grade is driven by the value that students, parents, and teachers attach to it. Students who value high grades, she reported, modify their behavior to avoid the negative consequences for low grades, while students who do not value high grades are controlled by other outside factors they value. Parents and teachers use both reward and coercive power to control expected student outcomes. This results, she concluded, in students not valuing the learning process. Instead, they are motivated to perform to receive an extrinsic reward or a high grade and to avoid punishments from things they value. This conclusion was supported by McMillan (2009), who noted that extrinsically motivated students seek to obtain rewards that come from high grades, not greater knowledge or skill that high grades reflect. Ames (1990), in an essay on how motivation affects students' developmental changes and culturally related differences, wrote:

We spend a great deal of time discussing individual differences in motivation, treating motivation as a trait," "but not enough time attending to how the organization and structure of the classroom shapes and socializes adaptive and maladaptive motivation patterns (p. 418).

The positive effects of appropriate feedback in enhancing student learning are well documented. Hattie and Timperley (2007) reported that, to be effective, feedback needs to be clear, purposeful, and meaningful. Bloom, Madaus, and Hastings (1981) asserted that only occasionally must information be combined to produce a summative grade. As a method of providing feedback for student learning, grades may have negligible value if they do not clearly communicate achievement. Black and William (1998) reported that marks and grades are overemphasized in schools, while useful advice is underemphasized. "When the classroom culture focuses on the 'gold stars,' grades, or class ranking, then pupils look for ways to obtain best marks rather than improve their learning" (p. 143). Six years later, Black, Harrison, Lee, Marshall, and William (2004) reported that grading practices tend to emphasize competition rather than personal improvement. Cizek (1995) reported that new forms of assessment cannot provide clearer or more complete information about student achievement unless the ways that achievement is communicated are refined.

McMillan (2009) argued that self-efficacy is strengthened with standards-based grading because of the close association established between how students' performances relate to the learning standards. This encourages an explanation for success that is internal and controllable. Self-efficacy is strengthened when separate grades are given for academic enablers like conduct, participation, and effort. Therefore, the best thing a teacher can do is to make sure that grades convey meaningful, accurate information about student achievement. Brookhart (2009) reported that sound information allows students to draw conclusions about themselves as learners and their subsequent decisions will be grounded in a solid foundation of reliable information.

The need for grades to communicate achievement accurately may be especially true for students who come from historically disadvantaged populations. Howley, Kisimo, and Parrott (1999) studied seventh grade girls in three ethnically diverse and economically challenged Appalachian schools in order to identify variables that influenced their grades. Their study was comprised of a questionnaire administered to 52 teachers in the three schools attended by the participants and data analysis of 52 girls' standardized test results and their grades in academic subjects. The researchers reported that mixing effort and achievement criteria renders grading vulnerable to race and class bias; prevents an accurate picture of students' achievement; and may give students a sense that they are less capable than they really are. In short, in troubled schools good behavior may replace achievement as the desired response of students. The researchers suggested that report card grades should be based on achievement only since other factors compound the meaning of grades.

The same dangers exist for students who struggle in school. Roderick and Camburn (1999) analyzed the academic records of 27,612 Chicago freshmen and sophomores to identify how failure rates vary as a function of race, gender, ethnicity, age, and prior performance. They concluded that for many urban adolescents, the transition from middle school to high school is a time of academic difficulty and increasing school disengagement. Roderick and Camburn reported that few students recover from grade failure, especially males and Hispanic students, and early failure often translates into poorer performance later. Certain practices that seek to enhance student motivationassigning zeros for work that is late or not submitted, lowering grades for behavioral infractions--can exacerbate their negative effects. Covington (1992), writing about
motivation and the will to learn, asserted, "If failure threatens students' self-images of competency, then they are likely to withdraw from learning, particularly those who already harbor doubts about their ability" (p. 168). For all educators, reported Covington, but particularly for teachers in Catholic schools committed to educating the disadvantaged, the deflating consequences of failing grades outweigh any benefits.

The Standards for Teacher Competence in Educational Assessment of Students (American Federation of Teachers, National Council of Measurement in Education, National Education Association, 1990) made two clear assertions about grading. The first, Standard \#5, reads, "Teachers should be skilled in developing valid pupil grading procedures which use pupil assessments" (p. 1). In other words, teachers need to know how to combine various sources of information in order to generate grades and to articulate how those grades reflect student performance. In addition, it asserted that teachers must know how to put valid grading and reporting systems into place and recognize the subjective and judgmental nature of grading while continually evaluating and modifying their grading procedures in order to maintain validity. Standard \#6 was similarly insistent: "Teachers should be skilled at communicating assessment results to students, parents, other lay audiences, and other educators," calling for teachers to interpret assessment results so that others can make sense of them.

The literature makes clear that neither of these two standards has been fully realized in general practice. At the same time, the large and growing body of literature provides guidelines to bring teachers' practices in closer alignment with the Standards. This research about assessment and grading provides public, private, and Catholic schools with valuable information to guide them in doing just that. Disseminating this
knowledge to classroom teachers, however, has proven difficult. In 1998, Black and William wrote, "Fundamental change in education can be achieved only slowly-through programs of professional development that build on existing good practice" (p. 2). This study, with survey methodology, was designed to provide Catholic high-school educators with descriptions of what is occurring in their schools so that they can improve their work in this essential practice.

## Summary

Educational researchers have raised concerns about inconsistent grading practices for nearly one hundred years, yet throughout much of the past century there was no consensus regarding a standard for grading. With the advent of the standards movement in the 1980s, the purpose of schooling emphasized enhancing all students' learning. Following the adoption of standards came a growing consensus among researchers that schools must not only improve what and how students learn, but how learning is measured and communicated.

Grading is a complex professional judgment of student academic performance. While differences exist among researchers regarding details of a new grading system, there is clear consensus in the literature among such experts as Guskey (1996), Brookhart (2009), Marzano (2000), and O’Connor (2002) that change is needed in the way teachers grade and report student learning. The general theoretical agreement is that the most important purpose of grades should be to communicate academic achievement.

Despite a large body of research calling for change, there remains considerable confusion regarding the meaning of grades and their reliability in communicating levels
of student academic achievement. Studies show that teachers mix non-achievement factors, such as effort, ability, and conduct with academic achievement into a single symbol, which nullifies that symbol's ability to clearly communicate about any one aspect of a student's education. Without clear policies and training to guide them in the practice of grading, teachers rely on their own philosophies of teaching and learning. The philosophies result in "hodgepodge" grading practices.

This study aimed to shed light on the practices and purposes of Catholic highschool teachers in order to identify which practices align with researchers' recommendations and which practices run counter to those recommendations. Deepening Catholic educators' knowledge base regarding grading will better equip them to serve the students in their care.

## CHAPTER III

## METHODOLOGY

## Restatement of the Purpose

The purpose of this study was to identify the practices Catholic high-school teachers employed in determining students' grades. The study investigated the extent to which academic achievement comprised the grades teachers report, and the extent to which teachers' grading practices are consistent with their expressed purposes for grading. Finally, the study explored the extent to which Catholic high-school teachers' grading practices are consistent with their respective school's purpose for grading.

## Research Design and Methodology

The methodologies used to collect data for this study were researcher-designed surveys and a thematic analysis of school documents pertaining to grading. Two surveys were used (Appendix A, Appendix B). Teachers completed a 63 -item researcherdeveloped online survey, and administrators completed a 31-item researcher-developed online survey (Appendices A and B). The survey items were derived from the work of Thomas Guskey (1996), whose work formed the basis of this study conceptual framework. The surveys' contents were also informed by the work of Ken O'Connor (2002), Susan Brookhart (2009), Robert Marzano (2000), and Richard Stiggins (2001), each of whom has written extensively about grading and assessment. The online surveys were administered in April 2010 using Survey Monkey online software.

In order to provide depth to the survey results, a thematic analysis of 52 schools’ published grading policies was employed in this study. The Parent/Student Handbooks
of 48 Catholic high schools, as well as grading policies posted by four schools in other documents on their websites, were examined. Parent/Student Handbooks are legally binding policy documents of Catholic high schools. Examination of each document was based on the content of the surveys. This was done in order to provide depth to the study. Relevant information found in these documents was coded to identify if each school had articulated its purpose for grading and what the purpose was, and to identify specific school-wide policies and practices that schools had established for teachers to follow in determining students' grades.

## Population

This study addressed the Catholic secondary schools of the 111 Catholic high schools of United States Catholic Conference of Bishops Region XI. The researcher received approval from the Institutional Review Board for the Protection of Human Subjects (IRBPHS) to conduct the study (Appendix C). The researcher received permission from diocesan school superintendents (Appendix D) and from each participating school principal (Appendix E) selected randomly from among the United States Catholic Conference of Bishops Region XI, which includes California, Hawai'i, and Nevada. Principals of 45 high schools responded positively to an email (Appendix E) sent to 95 of Region XI's high schools, which were selected randomly (Appendix F). The principals of the 45 schools were asked to forward to their teachers and academic administrators introductory emails requesting their participation in the survey research and containing a hyperlink to the respective online survey (Appendices G and H). Every teacher in the participating schools was asked to complete the teacher survey, and principals and
administrators in charge of academics were asked to complete the administrator survey. The response rate for both surveys was very strong. The teacher survey drew responses from teachers from 31 Catholic high schools. Administrators from 26 high schools completed the Administrator Survey. In sum, administrators and teachers from 33 Catholic high schools surveys participated in the survey portion of this study. Individually, a total of 486 teachers participated in the survey, with 411 ( $84.6 \%$ ) completing it in its entirety. The largest number of respondents came from the major subject areas (Mathematics, English, Science, Social Science, Foreign Language) and fewer from smaller academic departments (Physical Education, Computer Applications, Visual and Performing Arts). A total of 50 administrators in charge of academics began the survey, and 43 ( $85.0 \%$ ) completed the survey. This high response rate strengthened the findings of the study.

## Instrumentation

Random sampling was employed in the two surveys. Ninety-five high schools were contacted via personal email requesting participation of their teachers and academic administrators in the survey research. Forty-five schools responded affirmatively, two declined to participate, and 50 did not respond, resulting in a $46.4 \%$ school-response rate. The researcher requested that every teacher and every administrator responsible for academics in each school be asked to complete the survey via an emailed message forwarded by each principal. In the end, teachers and administrators from 33 high schools participated in the survey research. The sampling of teachers represented 31 schools; the sampling of administrators came from 26 schools.

Teacher and administrator participation in the survey research met expectations, with 486 teachers beginning the teacher survey. Of those, 416 of those who began the survey, $85.5 \%$, completed the survey. The respondents represented every researcheridentified academic subject area. This allowed for meaningful statistical comparisons between teachers from different academic departments. Fifty administrators responded to the survey, with 43 administrators, $86.0 \%$ of those who began the survey, completing the survey.

To determine the degree of consistency that existed between teachers' grading practices and the purposes for which they were reported, the practices that teachers reported they employ in determining grades were juxtaposed with the teachers' own expressed purposes for grading. Those same grading practices of teachers were compared to the purposes that school administrators identified that they believed grades serve.

In order to provide depth to the survey results, other data were gathered from a review of available grading policies of 52 Catholic high schools from the United States Conference of Catholic Bishops' Region XI. The researcher performed a thematic analysis of available school grading policies through a search of the websites of Catholic high schools throughout Bishops' Region XI. Seventy-two schools' websites were examined; 48 schools’ Parent/Student Handbooks (for either the 2009-2010 or 2010-2011 school year), one Faculty Handbook, and three academic policies guides were available online on schools' websites. In total, documents regarding grading were found for 52 schools. The primary repositories of such policies were Parent/Student Handbooks, which are legally binding documents containing schools' policies. These 52 documents were analyzed to examine school-wide purposes and policies for determining grades.

## Teacher Survey

The researcher contacted 97 schools from the list of high schools in Region XI to participate in the study. The principal of each school was contacted via email describing the nature and purpose of the study. Ultimately, 45 principals granted their permission. The researcher requested from each of those principals an email response expressing their permission to include their schools in the study (Appendix E). The researcher's email included a summary of the study for the principal's information. A separate information sheet providing background to the study was sent as an attachment, which included the study's purpose, procedures, and contact addresses and phone numbers for further information (Appendix I). A copy of the Research Subjects Bill of Rights was provided as an attachment (Appendix J).

Once permission was received, the researcher asked each principal to forward to every teacher in the school an email containing a brief explanation of the study and directions for accessing and completing the survey (Appendix G). A copy of the Research Subjects Bill of Rights was provided as an attachment (Appendix J). The teacher survey consisted of 63 researcher-developed items divided into six sections. The first section was comprised of a single item asking respondents to rank the purposes for which they grade students. The second section was comprised of seven items developed to discover school-wide methods of reporting that are practiced at each school. The third section was comprised of one forced-choice item and twelve no-yes items designed to discover school-wide grading policies each school may have in place. The fourth section was a set of 33 no-yes items seeking to discover teachers' individual grading practices. The fifth section was a single item that asked respondents to indicate the approximate
value they place on various elements in determining students' final grades. The sixth section was comprised of eight items (56 through 63) seeking to discover demographic and professional background information. These items asked what the primary subject area the respondents taught, their years of teaching experience, their levels of educational training, and the amount of formal training in grading and assessment they have received.

In the survey's original development, items $2,3,4,7$, and 8 were intended to discover the methods of reporting schools require teachers to employ. For the purposes of this study, items 2 through 8 do not answer any of the research questions and thus are not presented in the analysis.

Table 1
Correlation of Research Questions to Teacher Survey Items

| Research Question | Survey Items |
| :---: | :--- |
| 1 | $5,6,9,12-22,24-54,55$ |
| 2 | $23,12-14,26,33-54,55$ |
| 3 | $1,23,33,36,39,44-48,55$ |
| 4 | $1,10-14$ |

Note: Items 56-63 provided demographic information of respondents.

## Administrator Survey

Upon receiving permission from each principal, the researcher emailed to the administrators in charge of overseeing the school's academic program an email containing an explanation of the study and directions for completing the survey (Appendix H). A copy of the Research Subjects Bill of Rights was attached (Appendix J). The administrator survey consisted of 31 researcher-developed items in four sections. The first section was a single item seeking to uncover the administrators' beliefs for why their teachers grade students. The second section contained seven items to identify grading practices at each school. The third section was comprised of one forced-choice
item and a 12-item set of no-yes questions asking what school-wide policies exist at the respondents' school to guide teachers in determining students' grades. The fourth section was comprised of ten items (22 through 31) designed to determine administrators' professional training and administrative experience, and how much professional training in grading and assessment the school has provided its teachers (Table 2). Specifically, these items asked what administrative position the subject held, their years of administrative experience, their levels of formal educational training, and the amount of formal training in grading they have received, and whether the respondent's school had provided for its faculty any training in the practice of grading and assessment.

As with the Teacher Survey, the Administrator Survey items 2, 3, 4, 7, and 8 were originally developed to discover the methods of reporting schools require teachers to employ. As with the Teacher Survey, for the purposes of this study, items 2 through 8 do not answer any of the research questions and thus are not presented in the analysis.

Table 2
Correlation of Research Questions to Administrator Survey Items

| Research Question | Survey Items |
| :---: | :--- |
| 1 | $5,6,9,12-21$ |
| 4 | $1,10-14,21$ |

Note: Items 22-31 provided demographic information of respondents.

## Validity

The researcher's experience as a teacher, administrator, and a researcher of issues in grading and assessment and the counsel of the validity panel determined the design of the survey and the content of the questions. A panel of seven administrators, teachers, and educational consultants who are experts or practitioners in grading evaluated the
surveys' questions for their face, content, and construct validity. The validity panel was comprised of the following people:

- Thomas Guskey—Distinguished Service Professor of Educational Measurement at the University of Kentucky and author of numerous books and articles on grading and professional development, including Developing Grading and Reporting Systems for Student Learning (2001) and Practical Solutions for Serious Problems in Standards-Based Grading (2009);
- Jay McTighe-educational consultant of Columbia, Maryland, and author of numerous books and articles on curriculum and assessment, including Understanding by Design $(1998,2005)$, co-authored with Grant Wiggins;
- Paul Molinelli, Ph.D.-Director of Professional Development at St. Ignatius College Preparatory in San Francisco;
- Ken O'Connor-educational expert on grading and reporting and author of How to Grade for Learning (2002) and A Repair Kit for Grading: 15 Fixes for Broken Grades (2007);
- Bruce Powell—retired high-school teacher of Chemistry, Physics, and Biology, of San Francisco;
- Christopher Valdez—Principal of Marin Catholic High School in Kentfield, California;
- James Westrick--President and CEO of Collaborative Learning, Inc, which offers a web-based grading program and curriculum mapping software and provides consultants for professional development in the areas of curriculum development, assessment, grading, and instruction.

Three of the panel members-Thomas Guskey, Jay McTighe, and Ken O'Connor-are prominent figures in education. Each has published numerous articles and books on the subjects of grading and assessment. The other four panel members have experience in Catholic and public schools as classroom teachers and administrators. The researcher contacted the panel members in January of 2009 via email or telephone, requesting their participation in the study as part of the Validity Panel critiquing the two surveys (Appendix K). The email contained background information on the purpose of the study to provide context. Seven panel members agreed either via email or orally via telephone to take part. The researcher sent a subsequent email with directions for critiquing the surveys that included an evaluation form (Appendix L). The two surveys were also sent as attachments (Appendices A and B). Panel members were asked to evaluate the survey items for their effectiveness in addressing the research questions. Panel members were invited to make comments on the surveys themselves and to respond via email for more lengthy responses. Every panel member responded with comments and criticisms by the end of March of 2009.

One challenge to surveying educators about grading is that the terminology surrounding the practice of grading is not universally clear to teachers and administrators. Some terms, like grade, mark, and score, which have different meanings in educational measurement, are sometimes used interchangeably. Every member of the validity panel suggested changes to particular terms in order to eliminate or reduce the ambiguity of the survey items. In some instances, the language remained unchanged, as the researcher determined that the original terminology was the most precise that could be employed. For example, the word "range," used in item 19, was identified by one Validity Panel
member as holding the possibility of being interpreted differently by different respondents. The researcher decided that the word-used in asking if a teacher's grading scale has a wider range for an F grade than for grades of $\mathrm{A}, \mathrm{B}, \mathrm{C}$ and D -was sufficiently clear. The exercise in terminology underscored the challenge of communicating accurately about grading.

In other instances, recommendations to change terminology were followed, particularly when more than one panel member identified a term as vague or inappropriate. The drafts of the surveys presented to the Validity Panel used the phrase "summative grade." Every panel member suggested that the term "summative" might cause confusion for some teachers and administrators, so that term was replaced by the term "final grade." Similarly, the term "achievement" was consistently employed in reference to reporting of student learning with grades so that it would not be confused with "progress" or "improvement."

Mr. O'Connor emphasized the need for precise, consistent use of terminology throughout the two surveys in order to clearly and intentionally communicate the meaning of each item to survey takers. Specifically, O'Connor recommended that terms like "grade," "mark," and "score" be discretely employed, as they possess meanings that are not interchangeable. Similarly, also suggested using the term "achievement" in reference to the reporting of student learning with grades so that it would not be confused with "progress" or "improvement," as was the case in the Validity Panel's draft.

The first item on both surveys, which asked respondents to rank in descending importance six purposes for reporting a student's final grade, garnered attention of several members of the Validity Panel. Mr. Valdez suggested that the placement of this
item might dissuade teachers from completing the 63 -item survey, as it required timeconsuming consideration. The researcher determined that the importance of establishing respondents' purposes for grading made placing the item first most appropriate.

Professor Guskey suggested that the original Likert-scale format of the item needed to be changed to a ranking format in order for variation in responses to emerge. The Likert Scale format was eliminated and the amended format asked respondents to rank the six purposes for grading in descending order. Mr. McTighe suggested that an additional purpose of grading - to communicate other reporting dimensions like students' work habits and progress - might be advisable. Because those dimensions are addressed later in the survey, the researcher decided not to include any additional options.

Several members of the Validity Panel suggested that the survey items seeking to discover school-wide policies around grading (items 10 through 21 on the final survey) be amended. Mr. McTighe suggested adding a "Not Applicable" option to these "NoYes" items in case the items did not apply. Since the items required a positive or negative response, the researcher determined that "Not Applicable" would not produce clearer information. Dr. Guskey asked if those same items would produce confusion if individual academic departments in some schools were allowed to set grading policies. The purpose of this line of inquiry was to determine the degree of consistent school-wide policies. The researcher determined that providing departments the latitude to set policy was not commensurate with school-wide policy and allowed for considerable variation, so the items were not amended.

Dr. Molinelli suggested adding additional options to the items asking teachers and administrators how many years they had been working in their current positions, as there
might be noteworthy differences. As a result, the options were expanded from four options with five- or ten-year ranges ending with "21 years or more," to six options with five-year ranges, followed by an option of " 31 years or more."

One new item was added to each survey as a result of the Validity Panel's suggestions. Mr. McTighe suggested the addition of an item asking if each school trained its teachers in the practice of classroom assessment, since sound assessment is the basis for sound grading and reporting. As a result, item 63 was added to the Teacher Survey and item 30 to the Administrator Survey. Similarly, item 31 was added to the Administrator Survey in order to discover how recently the training was administered.

Finally, Dr. Guskey asked if researching the grading purposes and practices of teachers in Catholic high schools was warranted, given that there are many studies on grading that have been conducted on public secondary schools. The researcher sought to discover the practices and purposes for which Catholic high-school teachers reported grades, as he found no studies on the topic for Catholic high schools. The absence of such research was the genesis of the study. Given that Catholic high schools' missions are different from those of public high schools, the results of the study may shine light on how well the practice of reporting student learning through grades serves Catholic schools' missions.

## Reliability

The reliability of the two surveys was determined from the responses of separate pilot groups for the two surveys. Permission for conducting the reliability test was granted by IRBPHS in September of 2009 (Appendix C). For the teacher survey, two

Catholic schools participated. The researcher contacted the principal of the first school by email requesting permission to use his school's faculty as the Reliability Panel (Appendix M). All 33 of the school's teachers were contacted via email by the school's principal in October of 2009 to request their participation and to explain their role as members of a reliability panel (Appendix N ). The email contained instructions for completing the survey and a link to the online survey. Each subject was identified by a distinct numerical code to compare the participants' pairs of responses. Ten days after the conclusion of the first administration of the survey, the subjects were sent a request to complete the survey a second time, following the same procedure as the first administration. Because only 10 teachers completed the retest portion, the researcher contacted a much larger second school to request its faculty's participation in the reliability testing. The same steps for the second school were repeated in January of 2010. Out of the 115 teachers contacted by the principal's office of the second school, 20 completed both administrations of the reliability test. In total, 30 teachers took part in the reliability testing.

For the administrator survey, the researcher contacted 19 Catholic high schools to request participation of their academic administrators. Following identical procedures used for the teacher survey reliability testing, a total of 20 administrators completed the test round. Subsequently, 15 of those 20 administrators completed the retest round. The 15 subjects represented nine high schools in California and one in Washington.

Reliability was very difficult to measure because of the structure of these surveys. Only a subset of the survey items- 51 of 63 items on the Teacher Survey and 18 of 31 items on the Administrator Survey-lent themselves to a test-retest analysis. Those items
on the Teacher Survey were 3, 6, 8, 10-54, 61, 62, and 63. The Administrator Survey items that lent themselves to a test-retest analysis were $3,6,8,10-21,27,28$, and 30 .

Table 3
Point-Biserial Correlation (r) for Items 3, 6, 8, 10-54, 61-63 of Teacher Survey

| Question | $r$ | Question | $r$ | Question | $r$ |
| ---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
| 3 | 0.70 | 24 | 0.87 | 41 | 0.87 |
| 6 | 0.97 | 25 | 0.87 | 42 | 0.93 |
| 8 | 1.00 | 26 | 0.67 | 43 | 0.97 |
| 10 | 0.80 | 27 | 0.97 | 44 | 0.93 |
| 11 | 0.93 | 28 | 0.80 | 45 | 0.89 |
| 12 | 0.63 | 29 | 0.63 | 46 | 0.90 |
| 13 | 0.50 | 30 | 0.93 | 47 | 0.67 |
| 14 | 0.80 | 31 | 0.83 | 48 | 0.80 |
| 15 | 0.77 | 32 | 0.80 | 49 | 0.97 |
| 16 | 0.93 | 33 | 0.77 | 50 | 0.95 |
| 17 | 0.83 | 34 | 0.86 | 51 | 1.00 |
| 18 | 0.97 | 35 | 1.00 | 52 | 0.80 |
| 19 | 1.00 | 36 | 0.97 | 53 | 0.80 |
| 20 | 0.73 | 37 | 0.75 | 54 | 1.00 |
| 21 | 1.00 | 38 | 0.92 | 61 | 0.90 |
| 22 | 0.63 | 39 | 0.90 | 62 | 0.83 |
| 23 | 0.83 | 40 | 0.93 | 63 | 0.77 |
|  |  |  |  |  |  |

Point-biserial correlation was used for test-retest reliability. The average pointbiserial correlation ( $r$ value) for these 51 items was 0.852 . Table 3 shows that $45.1 \%$ of the correlations are at or above $.90,78.4 \%$ are at or above .80 , and $88.2 \%$ are at or above .70 , where .70 is generally considered acceptable reliability. So, $11.8 \%$ of the test-retest reliabilities, six items, fell below the acceptable range. Of those, five of the six items were above . 60 . The test-retest correlations for the no-yes items are presented in Tables 3 and 4.

The average point-biserial correlation ( $r$ value) for the 18 items in the Administrator Survey was 0.818 . Table 4 shows that $27.7 \% \%$ of the correlations are at or above $.90,72.2 \%$ are at or above .80 , and $72.2 \%$ are at or above .70 , which is generally considered an acceptable reliability. So, $27.8 \%$ of the test-retest reliabilities, five items, fell below the acceptable range. Three of those five items were above .60 .

Table 4
Administrator Survey Point-Biserial Correlation (r) Items 3, 6, 8, 10-21, $27-30$

| Question | $r$ | Question | $r$ | Question | $r$ |
| ---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
| 3 | 0.87 | 13 | 0.56 | 19 | 0.86 |
| 6 | 1.00 | 14 | 0.56 | 20 | 0.67 |
| 8 | 1.00 | 15 | 0.87 | 21 | 1.00 |
| 10 | 0.80 | 16 | 0.93 | 27 | 0.87 |
| 11 | 0.67 | 17 | 0.60 | 28 | 0.80 |
| 12 | 0.87 | 18 | 0.93 | 30 | 0.87 |

## Data Collection

An online survey, using Survey Monkey software, was used to administer, collect, and analyze the survey. The large number of schools spread over three states made email and online communication essential to the success of the survey and expedited the data collection and collation.

Principals of the high schools of the United States Conference of Catholic Bishops' Region XI were contacted via email to request their permission to ask for their teachers' participation. Principals were informed that the survey results would be made available to them upon the project's completion if they so desired. Principals were asked to distribute to their faculty an introductory letter describing the study and requesting their participation. Principals were asked to complete a survey designed for
administrators and to invite their administrators in charge of academics to complete the same survey. The purpose of the study was described in the cover letter, as were explanations of informed consent, privacy, and confidentiality assurances. The date range for the administration of the survey-April 13 to May 4, 2010-was also provided. Web links to the teacher survey and administrator survey were included in the introductory emails so that participants could access the web address and fill out the survey within the stated time range. Completion of the survey was considered implied consent. Over the next two weeks the researcher sent two reminder emails to the principals, asking them to forward the reminder to their faculty members. A final email was sent to the principals for distribution thanking the participants and reminding them of the importance of completing the survey if they had not yet done so.

## Data Analysis

The two surveys were comprised of 63 and 31 survey items, respectively. The items were designed to discover the purposes, policies, and practices that teachers employ in determining their students' grades and follow the conceptual framework of this study derived from the work of Thomas Guskey. Data collected from these surveys were presented as percentages and proportions for each item. The final section of each survey sought demographic and professional information. The two surveys allowed for an analysis of grading purposes and policies from administrators' and teachers' points of view. The surveys were not testing the efficacy of a particular approach or treatment, so there was no need for inferential statistics to be performed.

## Thematic Analysis of School Grading-Policy Documents

In order to provide depth to the survey results, a thematic analysis of schools' published grading policies was employed. Seeking publicly available information about schools' grading purposes, policies, and practices, the researcher examined 72 websites of Catholic high schools in Bishops Region XI. A total of 52 schools were found to have posted information on grading on their websites. Forty-eight Parent/Student Handbooks (for either the 2009-2010 or 2010-2011 school year), one Faculty Handbook, and three academic policies guides were available online. Examination of each document was based on the content of the surveys themselves and coded in order to provide depth to the study. Information regarding schools' grading purposes, policies, and practices was coded to identify if each school had articulated its purpose for grading and, if so, what the purpose was, and to identify specific school-wide policies and practices schools had established for teachers to follow in determining students' grades.

## Ethical Considerations

This study required the gathering of survey data from administrators and teachers. No participants were exposed to any treatments or procedures. The primary ethical consideration in administering the survey was the confidentiality of the respondents and schools that agreed to take part in the study. The return of the online survey served as implied consent. Respondents to the surveys were participated anonymously, thus protecting confidentiality. The principals of every school that participated provided their consent via email before the online surveys and accompanying materials were sent to the participants. Human subject protocols for survey research were strictly adhered to.

## CHAPTER IV

## FINDINGS

## Introduction

The purpose of this study was to identify the practices that Catholic high-school teachers employed in determining their students' grades. The study investigated the extent to which academic achievement comprised the grades that teachers reported, and the extent to which teachers' grading practices are consistent with their expressed purposes for grading. Finally, the study explored the extent to which teachers' grading practices are consistent with their respective school's purpose for grading.

The data for this study were gathered from two researcher-developed online surveys: a 63-item survey for teachers and a 31-item survey for administrators. Randomly selected teachers and administrators representing 26 Catholic high schools in California and Hawai'i completed the survey. A total of 486 teachers began the survey, with 416 completing it in its entirety, and 50 administrators began the administrator survey, with 43 completing it. Other data were gathered from a thematic analysis of grading-policy documents of 52 Catholic high schools from the United States Conference of Catholic Bishops' Region XI. The researcher examined schools' available policies regarding grading found through a search of the websites of Catholic high schools throughout Bishops' Region XI. A primary repository of such policies were Parent/Student Handbooks, which are legally binding documents containing schools' policies. The Parent/Student Handbooks of 47 Catholic high schools were accessed online; one school made its Faculty Handbook available online; and four other schools directly published
their grading policies on their websites. These 52 documents were reviewed to examine school-wide policies for determining grades.

The items on both surveys were designed by the researcher based on the work of Thomas Guskey (1996), Ken O’Connor (2002), Richard Stiggins (2001), Robert Marzano (2000), and Susan Brookhart (2009). Each is a published expert in grading and assessment. The survey items were designed to uncover the practices teachers employ, the purposes they claim for reporting student learning through grading, and the school policies that guide teachers in grading. Other survey items sought to discover the amount of professional training-particularly in grading-that teachers and administrators have received in preparation for their duties, as well as the methods that schools use to communicate students' grades to parents, students, and other educational institutions.

The data are presented in five sections. The first four parts are organized in the order of the four research questions. The fifth section presents results that emerged from the surveys but were not explicitly addressed by the four research questions. These ancillary analyses explored two areas. The first area addressed differences in survey responses by teachers of different academic disciplines. The second area explored the amount of training in the practice of grading that teachers received and the differences in survey responses between those who had not received training and those who had.

## Research Questions

1. What grading practices do Catholic secondary-school teachers currently employ in determining their students' grades?
2. To what extent does academic achievement comprise the grades Catholic highschool teachers report for their students?
3. To what extent are Catholic secondary-school teachers' grading practices consistent with their expressed purposes for grading?
4. To what extent are Catholic secondary-school teachers' grading practices consistent with their school's purpose for grading?

The order in which the items were asked in the surveys is not necessarily the appropriate order for presenting the results. Consequently, in all sections below, results will be presented in the order that makes topical sense. At times readers will find results presented in their consecutive order, and at other times survey items will be presented by their content rather than sequential order.

## Research Question \#1

What grading practices do Catholic secondary-school teachers currently employ in determining their students'grades?

## Methods of Communication

The initial task undertaken was to discover the manner in which student learning is communicated to students, parents, school officials, and others. Item 9 of the Administrator and Teacher Surveys asked how schools report student learning for each course on school transcripts. One hundred percent of 48 administrators and $98.1 \%$ of 457 teachers reported that their schools report a grade that corresponds to an accompanying descriptor or numerical scale. A search of 52 Parent/Student Handbooks and school grading-policy documents from high schools in the USCCB Region XI corroborated the survey results; all 52 schools' employ A, B, C, D, F letter grades.

Item 6 of both surveys asked if a teacher's school requires all teachers to use the same computer grade book. A total of $93.5 \%$ of teachers and $89.8 \%$ of administrators reported that all teachers are required to use the same computer grade book. When those who answered "yes" to item 6 were asked if their school's system allows students and parents to see a student's grades at any time, $89.8 \%$ of all teachers and $77.6 \%$ of all administrators reported "yes." Item 5 of the Administrator and Teacher Surveys asked all respondents how often schools communicate grade reports to students and parents. A total of $65.1 \%$ of teachers and $57.1 \%$ of administrators reported that grades are available online for students and parents to examine at will (Table 5). Real-time online grade reporting is a recent development in school communications. Others reported that their schools report grades at intervals of one month, six weeks, nine weeks, or 12 weeks.

Table 5
Item 5 Frequency of School Grade Reports to Students and Parents

| Time Interval | Teacher Survey | Administrator Survey |
| :--- | :---: | :---: |
| Online Anytime | $300(65.1 \%)$ | $28(57.1 \%)$ |
| Monthly | $24(5.2 \%)$ | $1 \quad(2.0 \%)$ |
| Every 6 Weeks | $103(22.3 \%)$ | $12(24.5 \%)$ |
| Every 9 Weeks | $29(6.3 \%)$ | $8(16.3 \%)$ |
| Every 12 Weeks | $5(1.1 \%)$ | $0 \quad(0.0 \%)$ |

## School-Wide Policies

The next task was to discover the extent to which school-wide policies govern teachers' grading practices. Survey items 12 through 22 addressed this topic. Items 12 through 14 , which explored the extent that school-wide content and skills standards exist in schools, found that $65.6 \%$ of 451 teachers reported that their school has established
standards in each subject area. A smaller percentage of administrators, 59.6\%, representing 26 Catholic high schools, reported that their school has such standards (Table 6). Teacher survey data indicate, then, that nearly two-thirds of Catholic high school teachers work in schools that provide teachers with subject-area standards in assessing and grading student learning.

Table 6
Existence of Content and Skills Standards in Catholic High Schools

|  | Teacher Survey |  |
| :--- | :---: | :--- |
| Item Number and Question | Yes | No |
| 12. Does your school have subject- <br> area standards? | $296(65.6 \%)$ | $155(34.4 \%)$ |
|  | Administrator Survey |  |
| Item Number and Question |  |  |$\quad$| Yes | No |  |
| :--- | :--- | :--- |
| 12. Does your school have subject- <br> area standards? | $28(59.6 \%)$ | $19(40.4 \%)$ |

Items 13 and 14 were answered only by teachers and administrators who reported that their schools had content and skills standards. Item 13 revealed that $43.7 \%$ of all responding teachers are required to assess students' achievement of those standards. A slightly lower percentage of administrators, $40.4 \%$, reported the same. For $56.3 \%$ of the responding teachers, standards established by their school are not the basis for determining their students' grades (Table 7).

Item 14 revealed that $33.5 \%$ of teachers and $33.5 \%$ of administrators reported that their schools have established benchmarks for assessing students' achievement of each standard. Conversely, $66.5 \%$ of teachers, including many who are provided school-wide standards for measuring academic achievement, depend on their own judgment for determining what level of performance that students achieve against those standards.

Table 7
Assessment of Standards and Benchmarks in Catholic High Schools

| Teacher Survey |  |  |  |
| :---: | :---: | :---: | :---: |
| Item Number and Question | Yes | No | DNR* |
| 13. (For those who answered "Yes" to \#12) |  |  |  |
| Does your school require you to assess student achievement of standards? | 197 (43.7\%) | 98 (21.7\%) | 155 (34.4\%) |
| 14. (For those who answered "Yes" to \#12) |  |  |  |
| Does your school have benchmarks for assessing students' achievement of each standard? | 151 (33.5\%) | (32. | 154 (34.1\%) |
| *Did Not Respond. (155 answered "No" to \#12. One answered \#14 who had not answered \#12.) |  |  |  |
| Administrator Survey |  |  |  |
| Item Number and Question | Yes | No | DNR* |
| 13. (For those who answered "Yes" to \#12) |  |  |  |
| Does your school require you to assess student achievement of standards? | 19 (40.4\%) | 10 (21.3\%) | 18 (38.3\%) |
| 14. (For those who answered "Yes" to \#12) |  |  |  |
| Does your school have benchmarks for assessing students' achievement of |  |  |  |
| *Did Not Respond. (19 answered "No" to \#12 |  |  |  |

The next series of items revealed the extent to which schools have set policies and procedures that teachers must follow in determining students' grades. Item 18 revealed that $84.0 \%$ of teachers and $89.4 \%$ of administrators work in schools that have schoolwide grading scales with standardized grade cut-offs (Table 8). The thematic analysis of 52 Parent/Student Handbooks and other grading policy documents revealed that 34 provide grading scales with standardized cut-offs. Eighteen of 52 schools published no grading policies at all, while ten other schools leave the development of grading policies up to individual teachers. Only 20 schools provide some policy guidance, with four others delegating grading policies to academic departments.

Table 8
Catholic High Schools with School-Wide Grading Scales
Teacher Survey

| Item Number and Question | Yes | No |
| :--- | :--- | :--- |
| 18. Does your school have a school <br> grading scale with standardized <br> grade-equivalent cut-offs? |  |  |
| Administrator Survey |  |  |
| Item Number and Question | Yes | $71(16.0 \%)$ |

18. Does your school have a school grading scale with standardized grade-equivalent cut-offs? $42(89.4 \%) \quad 5(10.6 \%)$

Item 19 was addressed only by teachers and administrators who responded "yes" to item 18. Results showed that $68.8 \%$ of teachers and $80.9 \%$ of administrators work in schools in which the standard range for the grade that indicates failure (F) was larger than the ranges for other grades. Similarly, $82.7 \%$ of teachers in item 30 indicated that in their personal grading scales the range for an F is larger than the ranges for an $\mathrm{A}, \mathrm{B}, \mathrm{C}$, or D (Table 9). The thematic analysis revealed that 33 of 52 schools ( $63.4 \%$ ) post grading scales in which the grade range for F is $0-59$. Eighteen schools did not publish a grading scale. One school indicated that an F was to be worth $59 \%$.

Table 9
Teachers' Grade Range for Grade Communicating Failure

| Teacher Survey |  |  |
| :--- | :--- | :--- |
| Item Number and Question | Yes | No |
| 30. Is your personal grade-range for F larger <br> than the ranges for other grades? | $354(82.7 \%)$ | $74(17.3 \%)$ |

Seeking to discover the degree of grading consistency among teachers of the same course, item 20 asked teachers and administrators if uniform assessments are employed by teachers of courses with multiple sections taught by more than one teacher. Results
showed that $49.2 \%$ of teachers and $53.2 \%$ of administrators reported that they employ uniform assessments. Conversely, $50.8 \%$ of teachers reported that they develop their assessments independently from colleagues teaching the same course (Table 10).

Table 10 Uniform Assessments in Grade Determination

| Teacher Survey |  |  |
| :---: | :---: | :---: |
| Item Number and Question | Yes | No |
| 20. Are uniform assessments administered when multiple teachers teach the same courses? | 216 (49.2\%) | 223 (50.8\%) |
| Administrator Survey |  |  |
| Item Number and Question | Yes | No |
| 20. Are uniform assessments administered when multiple teachers teach the same courses? | 25 (53.2\%) | 22 (46.8\%) |

Item 22 asked if teachers determine students' final grades by using the same categories as their colleagues who teach the same course. "Categories" refers to the different types of evidence (quiz, test) or the different learning standards around which teachers organize their grade books (O’Connor, 2007). Results found that $61.4 \%$ of teachers reported they use the same categories as their colleagues who teach the same course; $38.6 \%$ reported that they do not.

Survey items 15,16 , and 17 uncovered the degree to which teachers' procedures for determining grades are guided by school policies (Table 11). A total of $29.0 \%$ of teachers (and $34.0 \%$ of administrators) reported in Item 15 that their school identified the categories teachers may consider in determining a student's grade; $71.0 \%$ of teachers do not have such prescribed categories and determine categories at their discretion.

Similarly, $39.6 \%$ of teachers reported in Item 16 that their school had identified the weights a teacher may place on different elements in determining a student's final
grade. A considerably larger percentage of administrators, $51.1 \%$, reported that their school identifies the weights teachers use in determining grades. The difference may be attributed to the sizes of the pools of respondents, 445 teachers versus 47 administrators. Whatever the reason, $60.4 \%$ of teachers are free to determine the importance of the various elements in their grading system.

Table 11
Prevalence of School-Wide Policies Governing Grade Determination
Teacher Survey

| Item Number and Question | Yes | No |
| :--- | :--- | :--- |
| 15. Does your school identify what categories <br> you may use in determining grades? | $129(29.0 \%)$ | $316(71.0 \%)$ |

16. Does your school identify the weights you may place on various elements in grading? 176 (39.6\%) 269 (60.4\%)
17. Does your school identify what methods you may use to determine grades?
150 (33.7\%) 295 (66.3\%)

| Item Number and Question | Administrator Survey | Yes |
| :--- | :--- | :--- | No | 15. Does your school identify what categories |
| :--- | :--- | :--- |
| you may use in determining grades? |$\quad 16(34.0 \%) \quad 31(66.0 \%)$

In Item 17, 33.7\% of teachers (150 of 445) reported that their school had identified the methods that teachers may employ in determining grades. This is a much lower percentage than the administrators' response, as $51.1 \%$ of administrators reported that their schools prescribe such methods. This difference may indicate some confusion regarding the meaning of "methods." Some may have interpreted the term more broadly
than others. The fact that 41 teachers participating in the survey skipped items 15 and 16 may support that supposition. Possibly, many teachers do not know if specific methods are prescribed. Nevertheless, that $66.3 \%$ of teachers do not have prescribed grading methods indicated that most teachers have substantial latitude in determining grades.

Item 21 asked if school policies on attendance affect grading. Such a policy calls for any student whose absences from a class exceeds a maximum number in a single term to receive a failing grade or loss of course credit, regardless of the grade the student had earned to that point. Results indicated that $77.0 \%$ of teachers and $83.0 \%$ of administrators reported that their school has minimum attendance requirements students must meet to pass each course (Table 12). An analysis of policy documents revealed that 37 of the 52 schools reduce students' grade after a set number of missed classes. Six impose non-academic penalties, while nine made no mention of any attendance policy.

Table 12
Attendance Policies in Grade Determination

|  | Teacher Survey |  |
| :--- | :---: | :--- |
| Item Number and Question | Yes | No |
| 21. Does school have minimum attendance <br> requirements to pass each course? | $338(77.0 \%)$ | $101(23.0 \%)$ |
| Administrator Survey |  |  |
| Item Number and Question | Yes | No |
| 21. Does school have minimum attendance <br> requirements in order to pass each course? | $39(83.0 \%)$ | $8(17.0 \%)$ |

## Teachers' Grading Practices

The Teacher Survey asked a series of questions (items 24-31) to determine what practices teachers employ in determining grades (Table 13). In Item 28, 80.6\% of teachers reported that they primarily score students' work using a 100-point grading
scale. At the same time, item 29 revealed that $45.8 \%$ of teachers reported they primarily score students' work using a rubric scale. This ambiguity might indicate that teachers use different scoring procedures for different types of assessments.

Table 13
Teachers' Practices in Determining Final Grades

| Item Number and Question | Yes | No |
| :--- | :--- | :---: |
| 24. Do you primarily average scores? | $286(66.8 \%)$ | $142(33.2 \%)$ |
| 25. Do you use other measures of <br> central tendency? | $50(11.7 \%)$ | $378(88.3 \%)$ |
| 26. Do you use benchmarked performance <br> descriptors? | $173(40.4 \%)$ | $255(59.6 \%)$ |
| 27. Do you grade on a curve? | $42(9.8 \%)$ | $386(90.2 \%)$ |
| 28. Do you primarily use a 100-point scale? | $345(80.6 \%)$ | $83(19.4 \%)$ |
| 29. Do you primarily use a rubric scale? | $196(45.8 \%)$ | $232(54.2 \%)$ |
| 30. In your scale, is the range for F larger <br> than the ranges for A, B, C and D? | $354(82.7 \%)$ | $74(17.3 \%)$ |
| 31. Do you record a zero on a 100-point scale? | $389(90.9 \%)$ | $39(9.1 \%)$ |

Averaging was prevalent among teachers in determining grades. Item 24 found that $66.8 \%$ of teachers determine students' final grades by averaging their scores on tests and other assessments. Item 25 revealed that only $11.7 \%$ of teachers use other measures of central tendency, such as median and mode, when determining grades. On the other hand, item 26 showed that $40.4 \%$ of teachers determine grades by evaluating student performances against a benchmarked set of descriptors. Similarly, $45.8 \%$ of teachers reported in item 29 that they primarily score students' work using a rubric scale.

The Teacher Survey results indicated that large majorities of teachers employ
grading practices that do not align with practices experts recommend (Baron, 2000;
Lambating \& Allen, 2002; McMillan \& Workman, 1999). As noted previously, $82.7 \%$ of teachers reported in item 30 that their range for the grade of $F$ is larger than that for the grades of $\mathrm{A}, \mathrm{B}, \mathrm{C}$, and D . A much smaller percentage of teachers, $9.8 \%$, reported in item 27 that they employ normative grading practices, more widely known as grading on a curve. Normative grading compares students against their classmates rather than against learning outcomes. The use of zeros was much greater. Item 31 revealed that $90.9 \%$ of teachers record grades of zero on a 100-point scale for work that is not submitted or found to have been plagiarized. This practice is endorsed by many schools. The analysis of schools' policy documents found that 25 of 52 schools mandate the use zeros in certain cases-frequently, in cases of cheating. Three schools assign "no credit" for violations of academic integrity. While no mention of the use of zeros was made in 24 other handbooks, the analysis found no policy statements prohibiting the use of zeros.

Items 32 through 38 explored the way teachers used work that grading experts (Guskey \& Bailey, 2001) consider formative. Formative assessments guide student learning and are not included in a student's final grade (Black \& William, 1998). Item 32 asked teachers if their assessment programs included formative assessments; $67.1 \%$ of teachers reported "yes," while $32.9 \%$ considered all work to be summative-that is, they factor all work that students do in the student's final grade (Table 14).

Table 14
Teachers' Use of Formative Assessments

| Item Number and Question | Yes | No |
| :--- | :--- | :--- |
| 32. Does your assessment program include <br> formative assessments? | $287(67.1 \%)$ | $141(32.9 \%)$ |

The survey also uncovered how teachers consider homework in their grading practices. Item 33 revealed that $21.7 \%$ of teachers exclude practice-oriented homework in determining grades, while $78.3 \%$ of teachers include scores on homework assignments intended as practice. Homework of this sort is an example of formative assessment. Items 34 and 35 were addressed only by the 335 teachers who included practice-oriented homework in their grades. Item 34 revealed that $39.7 \%$ of teachers grade homework intended as practice for its accuracy and correctness. Item 35 showed that $72.9 \%$ of teachers grade such homework for its completion (Table 15).

Table 15
Teachers Use of Practice-Oriented Homework

| Item Number and Question | Yes | No | DNR* |
| :--- | :--- | :--- | :--- |
| 33. Do you include homework scores <br> in a student's final grade? | $335(78.3 \%)$ | $93(21.7 \%)$ | -- |
| 34. (For those who answered "Yes" to <br> item 33) Do you score practice- <br> oriented homework for correctness? | $170(39.7 \%)$ | $163(38.1 \%)$ | $95(22.2 \%)$ |
| 35. (For those who answered "Yes" to <br> item 33) Do you score practice- <br> oriented homework for completion? | $312(72.9 \%)$ | $21(4.9 \%)$ | $95(22.2 \%)$ |

*93 answered "No" to \# 33. Two others responded "Yes" but did not respond to 34 and 35.

Items 36, 37, and 38 discovered a similar pattern of responses regarding teachers' use of other formative assessment evidence. Notebooks and journals are process-oriented activities students follow in developing academic proficiency. Results for item 36 showed that $50.8 \%$ of 427 teachers assessed students' notebooks or journals and included those assessments in students' grades, while $49.2 \%$ treated notebooks and journals as formative activities: part of the process of, but not evidence of, learning. Of the $50.8 \%$ of teachers who reported in item 36 that they include assessments of notebooks or journals
in students' grades, $139,32.6 \%$ of the total respondents, reported in item 37 that they grade students' notebooks and journals for accuracy and quality, and 206, 48.2\% of all respondents, responded in item 38 that they grade notebooks and journals for completion.

As in items 33, 34, and 35, these responses indicate that a majority of teachers include formative work in their final grades (Table 16).

Table 16
Teachers Who Include Notebooks and Journals in Final Grades

| Item Number and Question | Yes | No | DNR* |
| :--- | :--- | :--- | :--- |
| 36. Do you assess notebooks or journals <br> in determining students' grades? | $217(50.8 \%)$ | $210(49.2 \%)$ | -- |
| 37. Do you grade students' note books and <br> journals for accuracy and quality? | $139(32.6 \%)$ | $74(17.3 \%)$ | $214(50.1 \%)$ |
| 38. Do you grade students' note- <br> books or journals for completion? | $206(48.2 \%)$ | $8(1.9 \%)$ | $213(49.9 \%)$ |

*Did Not Respond. (210 answered "No" to \#33. Four responded "Yes" but did not respond to \#37. Three additional participants chose not to respond to item 38.)

## Sources of Evidence in Determining Grades

The next section of the Teacher Survey sought information about sources of information teachers use in determining students' grades. Items 39 through 54 asked teachers if they included various sources of evidence, all of which are evidence of the process by which a student learns or the progress over time a student makes. A majority of teachers include two process-oriented sources of evidence. Item 39 showed that $57.3 \%$ of teachers include "effort" in determining grades. Similarly, $71.2 \%$ of teachers reported in item 44 that they include "class participation" in determining grades; $28.8 \%$ do not. When the 302 teachers who responded "yes" to item 44 were asked in item 45 if they define "class participation" solely to be evidence of achievement of course outcomes,
$89.7 \%$ of them responded that they do not (Table 17). For those teachers, "participation," which is evidence of the learning process, is part of a student's final grade.

Table 17
Grading Effort \& Class Participation in Determining Students' Grades

| Item Number and Question | Yes | No | DNR* |
| :--- | :--- | :--- | :--- |
| 39. Do you include "effort?" | $243(57.3 \%)$ | $181(42.7 \%)$ | -- |
| 44. Do you include "participation?" | $302(71.2 \%)$ | $122(28.8 \%)$ | -- |
| 45. (For those who answered "Yes" to 44) <br> Do you define "participation" solely as <br> evidence of achievement of outcomes? | $31(7.3 \%)$ | $270(63.7 \%)$ | $123(29.0 \%)$ |

*Did Not Respond. (122 marked "No" to \#44. One "Yes" respondent to \#44 did not answer \#45.)

Another source of evidence, classroom observations, was explored in item 47.
Results showed that $48.7 \%$ of teachers include observations they make of students during class in their grading determinations. When related to specific criteria, observations can measure academic achievement. Item 48 revealed that $7.3 \%$ of the teachers explicitly define observations to be evidence of a student's achievement of outcomes, while $92.7 \%$ who include observations in their grading decisions do not relate them to learning outcomes (Table 18). Observations, like participation, are process-oriented evidence.

Table 18
Grading Classroom Observations

| Item Number and Question | Yes | No | DNR* |
| :---: | :---: | :---: | :---: |
| 47. Do you include observations in determining students' grades? | 206 (48.7\%) | 217 (51.3\%) | -- |
| 48. (For those who answered "Yes" to \#52) |  |  |  |
| Do you define observations solely as evidence of achievement of outcomes? | 31 (7.3\%) | 174 (41.1\%) | 218 (51.6\%) |

[^0]Items 40 through 43 asked teachers if they included other process-oriented sources of evidence: class attendance, work habits, neatness of work, and classroom behavior (Table 19). Results indicated that $22.2 \%$ of teachers include attendance in a student's grade, $39.9 \%$ include work habits, $31.1 \%$ include neatness, and 29.7\% factor behavior. A majority of teachers exclude these sources of evidence in their grade determinations; a considerable minority includes these types of evidence, which are indicators of student habits and behaviors.

Table 19
Inclusion of Process-Oriented Grading Criteria

| Item Number and Question | Yes | No |
| :--- | :--- | :--- |
| 40. Do you include attendance? | $94(22.2 \%)$ | $330(77.8 \%)$ |
| 41. Do you include work habits? | $169(39.9 \%)$ | $255(60.1 \%)$ |
| 42. Do you include neatness? | $132(31.1 \%)$ | $292(68.9 \%)$ |
| 43. Do you include student behavior? | $126(29.7 \%)$ | $298(70.3 \%)$ |

Teachers' treatment of late assignments and extra-credit opportunities were explored next. Items 49 through 51 asked teachers how they treat late assignments. Item 49 showed that $84.4 \%$ of respondents accept late work; $15.6 \%$ do not. Item 50 indicated that $76.4 \%$ of teachers reduce the grades of late assignments (Table 20). Of 423 teachers, $92.0 \%$ either do not accept late work or they reduce their grades. Teachers' reasoning was not explored. Nearly all teachers, $97.9 \%$, reported in item 51 that they accept assignments submitted late due to excused absences. Item 52 explored how teachers treat extra credit (Table 20). They were nearly evenly divided in their responses. A total of $52.2 \%$ reported that extra credit is available to provide opportunities for students to
improve their grades. Of those 221 respondents, all but 20 offer extra credit equally to every student. It is uncertain how those 20 offer extra credit opportunities.

Table 20
Late Assignments and Extra Credit Opportunities

| Item Number and Question | Yes | No | DNR* |
| :--- | :--- | :--- | :--- |
| 49. Do you accept assignments <br> submitted by students after the <br> due date? | $357(84.4 \%)$ | $66(15.6 \%)$ | -- |
| 50. (For those who answered "Yes" <br> to Item 49) Do you reduce the <br> grades of late assignments? | $323(76.4 \%)$ | $35(8.3 \%)$ | $65^{*}(15.4 \%)$ |

52. Is extra credit available to allow students to improve their grades? 221 (52.2\%) 202 (47.8\%)
53. (For those who answered "Yes" to 52) Is extra credit offered to every student?
$200(47.3 \%) \quad 20(4.7 \%) \quad 203^{* *}(48.0 \%)$
*66 answered "No" to \#49. One did not respond to \#50 for reason unknown.
** 202 answered "No" to \#54; 1 did not to respond to \#54 for reason unknown.

Item 46 explored if teachers include progress in their grade deliberations. A student's progress is a measure of individual student growth over time and is different than process or of performance, and $44.7 \%$ of teachers reported that they do not include the improvement a student has made since the start of a term; $55.3 \%$ include improvement (Table 21).

Table 21
Inclusion of Student Improvement in Grading

| Item Number and Question | Yes | No |
| :--- | :--- | :--- |
| 46. Do you include the improvement a <br> student has made over time? | $234(55.3 \%)$ | $189(44.7 \%)$ |

## Values of These Sources of Evidence Assigned by Teachers in Grading

Item 55 asked teachers to indicate the approximate value they place on various sources of evidence when determining final grades. These sources of evidence are identical to those presented previously in items 33 through 48 of the Teacher Survey. Table 22 presents the data results for item 55 . There is no uniformity in the way teachers use these sources of evidence, but the data reveal broad trends. First, teachers value homework assignments in their determinations much more than the other nine sources. Specifically, $96.6 \%$ of teachers count homework for some value in the final grades; $52.0 \%$ reported that homework is worth $20 \%$ or more of students' grades. Only $3.9 \%$ of teachers do not include homework assignments in their grading. An earlier survey item, number 33, revealed that $78.3 \%$ of teachers include homework intended as practice.

Class participation was the second-most important of these sources of evidence, as $69.2 \%$ reported that they count it for some value, nearly matching the $71.2 \%$ who reported previously in item 44 that they do so. A total of $27.0 \%$ assign it $15 \%$ or more of a student's final grade, and $30.8 \%$ of teachers reported that they do not include participation in determining students' grades.

Three sources of evidence-notebooks and journals, effort, and improvementare treated similarly in deciding students' final grades, with over half of teachers including them in their determinations. A majority of teachers, $55.0 \%$, reported that they include students' notebooks and journals in final-grade determinations, more than the $50.8 \%$ who reported previously in item 36 that they include assessments of notebooks or journals in their grades, and $22.1 \%$ of teachers count them for $15 \%$ or more of a student's final grade. Effort is included by $53.8 \%$ of teachers as part of their grading program. In
item 39, $57.3 \%$ of teachers reported that they include effort, and $28.9 \%$ count effort for $10 \%$ or more of their final grades' value. Finally, $51.2 \%$ of teachers reported that they include students' improvement in their grading deliberations, slightly less than the 55.3\% who reported in item 46 that they include a student's improvement in the course of the term, with $29.4 \%$ counting improvement for $10 \%$ or more of final grades.

Table 22
Item 55. Values of Sources of Evidence in Teachers' Grade Determinations

| Sources of Evidence | Percentage Value in Teachers' Grading System |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0\% | 5\% | 10\% | 15\% | 20\% | 25\% | 30+\% |
| a. Homework | $\begin{aligned} & 3.4 \% \\ & (14) \end{aligned}$ | $\begin{aligned} & \hline 7.9 \% \\ & (33) \end{aligned}$ | $\begin{gathered} \hline 21.9 \% \\ (91) \end{gathered}$ | $\begin{gathered} 14.9 \% \\ (62) \end{gathered}$ | $\begin{gathered} 19.5 \% \\ (81) \end{gathered}$ | $\begin{aligned} & 11.1 \% \\ & (46) \end{aligned}$ | $\begin{gathered} \hline 21.4 \% \\ (89) \end{gathered}$ |
| b. Notebooks/Journals | $\begin{aligned} & 45.0 \% \\ & (187) \end{aligned}$ | $\begin{gathered} 18.3 \% \\ (76) \end{gathered}$ | $\begin{aligned} & 14.7 \% \\ & (61) \end{aligned}$ | $\begin{aligned} & 8.2 \% \\ & (34) \end{aligned}$ | $\begin{aligned} & 4.6 \% \\ & (19) \end{aligned}$ | $\begin{aligned} & 4.3 \% \\ & (18) \end{aligned}$ | $\begin{gathered} 5.0 \% \\ (21) \end{gathered}$ |
| c. Effort | $\begin{aligned} & 46.2 \% \\ & (192) \end{aligned}$ | $\begin{aligned} & 25.0 \% \\ & (104) \end{aligned}$ | $\begin{gathered} 11.1 \% \\ (46) \end{gathered}$ | $\begin{aligned} & 7.0 \% \\ & (29) \end{aligned}$ | $\begin{aligned} & 5.3 \% \\ & (22) \end{aligned}$ | $1.7 \%$ <br> (7) | $\begin{gathered} 3.8 \% \\ (16) \end{gathered}$ |
| d. Class Attendance | $\begin{aligned} & 75.0 \% \\ & (312) \end{aligned}$ | $\begin{gathered} 13.0 \% \\ (54) \end{gathered}$ | $\begin{aligned} & 4.3 \% \\ & (18) \end{aligned}$ | $\begin{aligned} & 2.9 \% \\ & (12) \end{aligned}$ | $\begin{gathered} 1.2 \% \\ (5) \end{gathered}$ | $\begin{aligned} & 0.7 \% \\ & \text { (3) } \end{aligned}$ | $2.9 \%$ (12) |
| e. Work Habits | $\begin{aligned} & 62.3 \% \\ & (259) \end{aligned}$ | $\begin{gathered} 16.3 \% \\ (68) \end{gathered}$ | $\begin{aligned} & 9.9 \% \\ & (41) \end{aligned}$ | $\begin{aligned} & 3.6 \% \\ & (15) \end{aligned}$ | $\begin{aligned} & 2.9 \% \\ & (12) \end{aligned}$ | $1.9 \%$ <br> (8) | $\begin{gathered} 3.1 \% \\ (13) \end{gathered}$ |
| f. Neatness | $\begin{aligned} & 70.7 \% \\ & (294) \end{aligned}$ | $\begin{gathered} 16.8 \% \\ (70) \end{gathered}$ | $\begin{gathered} 5.0 \% \\ (21) \end{gathered}$ | $\begin{aligned} & 2.9 \% \\ & (12) \end{aligned}$ | $1.7 \%$ <br> (7) | $1.4 \%$ <br> (6) | $1.4 \%$ <br> (6) |
| g. Student Behavior | $\begin{aligned} & 66.8 \% \\ & (278) \end{aligned}$ | $\begin{gathered} 14.4 \% \\ (60) \end{gathered}$ | $\begin{array}{r} 8.7 \% \\ (36) \end{array}$ | $\begin{aligned} & 2.9 \% \\ & (12) \end{aligned}$ | $\begin{aligned} & 3.8 \% \\ & (16) \end{aligned}$ | $1.4 \%$ <br> (6) | $1.9 \%$ <br> (8) |
| h. Class Participation | $\begin{aligned} & 30.8 \% \\ & (128) \end{aligned}$ | $\begin{gathered} 20.9 \% \\ (87) \end{gathered}$ | $\begin{gathered} 21.4 \% \\ (89) \end{gathered}$ | $\begin{gathered} 10.1 \% \\ (42) \end{gathered}$ | $\begin{aligned} & 7.7 \% \\ & (32) \end{aligned}$ | $\begin{aligned} & 3.4 \% \\ & (14) \end{aligned}$ | $\begin{aligned} & 5.8 \% \\ & (24) \end{aligned}$ |
| i. Improvement | $\begin{aligned} & 48.8 \% \\ & (203) \end{aligned}$ | $\begin{gathered} 22.8 \% \\ (95) \end{gathered}$ | $\begin{gathered} 12.3 \% \\ (51) \end{gathered}$ | $\begin{aligned} & 5.0 \% \\ & (21) \end{aligned}$ | $\begin{gathered} 3.6 \% \\ (15) \end{gathered}$ | $2.9 \%$ <br> (12) | $\begin{aligned} & 4.6 \% \\ & (19) \end{aligned}$ |
| j. Informal Observations | $\begin{aligned} & 55.0 \% \\ & (229) \end{aligned}$ | $\begin{gathered} 19.5 \% \\ (81) \end{gathered}$ | $\begin{gathered} 12.5 \% \\ (52) \end{gathered}$ | $\begin{aligned} & 4.3 \% \\ & (18) \end{aligned}$ | $\begin{gathered} 3.6 \% \\ (15) \end{gathered}$ | $\begin{gathered} 1.9 \% \\ (8) \end{gathered}$ | $\begin{aligned} & 3.1 \% \\ & (13) \end{aligned}$ |

*416 total respondents.

The majority of teachers reported that they do not include any of the other sources-attendance, neatness, student behavior, work habits, and informal observations-in their grade determinations. At the same time, each of these sources is included in final grades by noticeable percentages of teachers. Specifically, $12.5 \%$ of teachers, for example, count neatness for $10 \%$ or more of a student's grade, and $21.4 \%$ of teachers do the same for students' work habits, and $25.4 \%$ include informal observations in their grading determinations. A much higher percentage, $48.7 \%$, reported in item 47 that they include observations in a student's grade. (The use of the adjective "informal" might have contributed to the difference.) Attendance and student behavior are used by the fewest teachers, but even these factors are included to some extent by $37.7 \%$ and $33.2 \%$ of teachers, respectively.

There is no consensus about grading practices evident from the data. Teachers report that they include a variety of grading practices. The broad trends indicate that teachers include many types of evidence in students' grades, including evidence of how students learn, what they learn, and how much growth they make over time.

## Research Question \#2

To what extent does academic achievement comprise the grades Catholic high-school teachers report for their students?

Answering Research Question 2 necessitated a review of several survey items examined in answering Research Question 1. While this analysis may seem repetitive, the emphasis in this section is on identifying the extent to which the grades that teachers
report are measures of student academic achievement, and the teachers' responses regarding their practices are examined in this new context.

## Achievement and Other Criteria as Components of Grades

As explained Chapters 1 and 2, experts in grading recommend that grades be based on students' performance as measured against specific learning outcomes. Guskey and Bailey (2001) explained that advocates of achievement-based grading, also called standards-based grading, "focus on what students know and are able to do at a particular point in time" (p. 40). The Teacher Survey revealed the extent to which achievement comprises the grades that Catholic high-school teachers report for their students.

Results of item 23 indicate that the practice of grading students solely on their academic achievement is followed by just over half of the teachers (Table 23). Just over half (50.2\%) of teachers grade students solely on their academic achievement, while $49.8 \%$ of teachers indicated that they do not base their grades solely on achievement. Other items indicated that standards are in place to support achievement-based grading, though not all teachers employ them. For example, $65.6 \%$ reported in item 12 that their school established school-wide content and skills standards in each subject area.

While school-wide standards exist in a majority of schools, item 13 indicated that only $43.7 \%$ of teachers are required to assess and grade students' achievement of those standards. "Suggested guidelines" may be a more accurate term for the $56.3 \%$ whose schools have standards but do not require teachers to assess student achievement of those standards. Item 14 revealed that only $33.5 \%$ of the respondents work in schools that have set school-wide benchmarks to guide teachers in assessing students' achievement of each
standard. When teachers were asked in item 26 if they evaluate a student's performance against a benchmarked set of performance descriptors-set by the school or on their own- $59.6 \%$ reported that they do not. In sum, $50.2 \%$ of teachers reported that they base students' grades solely on achievement; $43.7 \%$ are required to assess student performance against standards. The remainder develop their own criteria for determining grades.

Table 23
Grade Reporting for Academic Achievement

| Item Number and Question | Yes | No | DNR* |
| :--- | :--- | :--- | :--- |
| 23. Is your system of grading <br> based solely on achievement? | $215(50.2 \%)$ | $213(49.8 \%)$ | -- |

26. Do you determine students' grades by evaluating performance against a benchmarked set of performance descriptors ? 173 (40.4\%) 255 (59.6\%) --
27. Does your school have subject-area content and skills standards? 296 (65.6\%) 155 (34.4\%) --
28. (For those who marked "Yes" to 12) Does your school require you to grade students' achievement of those standards? $197(43.7 \%) \quad 98(21.7 \%) \quad 156$ (34.5\%)
29. (For those who marked "Yes" to
12) Has your school set benchmarks
for assessing each standard?
$151(33.5 \%) \quad 146$ (32.4\%) $\quad 154$ (34.1\%)
*Did Not Respond. (155 answered "No" to item 12; one responded "Yes" but chose not to respond to item 13. Two answered item 14 despite answering "No" to item 12.)

Survey responses presented in answering Research Question 1 indicate that many teachers mix achievement and non-achievement factors in determining grades. Two items explored how teachers treat student work that is formative. Item 33 revealed that $78.3 \%$ of teachers include homework intended as practice in determining a student's grade (Table 24). Item 34 revealed that $39.7 \%$ of teachers score practice-oriented
homework for accuracy and correctness, while $72.9 \%$ of all teachers reported in item 35 that they include practice-oriented homework and evaluate it on whether the assignment was completed.

Table 24
Homework and Grading

| Item Number and Question | Yes | No | DNR* |
| :--- | :--- | :--- | :--- |
| 33. Do you include scores for practice <br> homework in a student's grade? | $335(78.3 \%)$ | $93(21.7 \%)$ | -- |

34. (For those who marked "Yes" to 34)

Do you score HW for correctness? 170 (39.7\%) 163 (38.1\%) 95 (22.2\%)
35. (For those who marked "Yes" to 34)

Do you score homework for completion?312 (72.9\%) 21 (4.9\%) 95 (22.2\%)
*93 answered "No" to item 33 . Two responded "Yes" but chose not to respond to 34 and 35 .

Similarly, item 36 uncovered that 50.8\% of respondents assess students' notebooks or journals in determining grades (Table 25). In Item 37, 32.6\% of all respondents reported that they grade notebooks or journals for accuracy and quality, and $48.2 \%$ reported in item 38 that they grade them for completion.

Table 25
Notebooks/Journals and Grading

| Item Number and Question | Yes | No | DNR* |
| :--- | :--- | :--- | :--- |
| 36. Do you assess notebooks/journals <br> in determining students' grades? | $217(50.8 \%)$ | $210(49.2 \%)$ | NA |
| 37. (For those who marked "Yes" <br> to 36) Do you grade notebooks/ <br> journals for accuracy and quality? | $139(32.6 \%)$ | $74(17.3 \%)$ | $214(50.1 \%)$ |
| 38. (For those who marked "Yes" <br> to 36) Do you grade students' note- <br> books/journals for completion? | $206(48.2 \%)$ | $8(1.9 \%)$ | $213(49.9 \%)$ |

*Did Not Respond. (210 answered "No" to \#33; 4 responded "Yes" but did not respond to \#37. Three others did not respond to \#38.)

Six items, 39 through 44, asked if teachers included various sources of evidence in determining grades (Table 26). These sources (effort, attendance, work habits, neatness, behavior, and participation) are evidence of the process by which students learn, not achievement. Many teachers include these sources of evidence in grading students.

Table 26
Sources of Process-Oriented Grading Evidence in Determining Grades

| Item Number and Question | Yes | No |
| :--- | :--- | :--- |
| 39. Do you include "effort?" | $243(57.3 \%)$ | $181(42.7 \%)$ |
| 40. Do you include "class attendance? | $94(22.2 \%)$ | $330(77.8 \%)$ |
| 41. Do you include "work habits?" | $169(39.9 \%)$ | $255(60.1 \%)$ |
| 42. Do you include "neatness"? | $132(31.1 \%)$ | $292(68.9 \%)$ |
| 43. Do you include "behavior?", | $126(29.7 \%)$ | $298(70.3 \%)$ |
| 44. Do you include "class participation?"" | $302(71.2 \%)$ | $122(28.8 \%)$ |

Two sources of evidence are used by a majority of teachers. Item 44 showed that class participation is used by $71.2 \%$ of teachers in their grading. Of those who include class participation, 270 ( $89.7 \%$ ) reported in item 45 that they do not consider participation solely to be evidence of achievement of course outcomes (Table 28). A $57.3 \%$ majority of teachers reported in item 39 that they include effort in their grading. Four other types of process-based evidence are used by considerable minorities. Specifically, $39.9 \%$ of teachers reported that they consider work habits in determining their grades; $31.1 \%$ of teachers reported that they include neatness; $29.7 \%$ of teachers consider behavior; and $22.2 \%$ factor class attendance in determining students' grades.

Table 27
Defining "Class Participation"

| Item Number and Question | Yes | No | DNR* |
| :--- | :--- | :--- | :--- |
| 45. (For those who marked "Yes" to 44) |  |  |  |
| Do you define "participation" solely <br> as evidence of course outcomes? | $31(7.3 \%)$ | $270(63.7 \%)$ | $123(29.0 \%)$ |
| *Did Not Respond. (122 marked "No" to \#44. One responded "Yes" but did not respond to \#45.) |  |  |  |

Three items addressed sources of evidence that are more directly related to student learning. Item 46 asked teachers if they consider the improvement a student has made since the start of the term (Table 28). Improvement is a consideration of how far a student has come, as opposed to what level of proficiency a student has achieved as measured against course outcomes. Results showed that $55.3 \%$ of teachers reported that they include improvement.

Table 28
Improvement and Classroom Observations in Determining Grades

| Item Number and Question | Yes | No | DNR |
| :--- | :--- | :--- | :--- |
| 46. Do you include the improvement <br> a student has made over time? | $234(55.3 \%)$ | $189(44.7 \%)$ | -- |

47. Do you include observations you make of students? $206(48.7 \%) \quad 217(51.3 \%) \quad$--
48. (For those who marked "Yes" to 44)

Do you define "observations" solely as evidence of achievement? $31(7.3 \%) \quad 174(41.1 \%) \quad 218^{*}(51.5 \%)$
*217 marked "No" to \#47. One responded "Yes" to \#47 but did not respond to \#48.)

Item 47 asked teachers if they include class observations in a student's grade, and $48.7 \%$ of teachers responded that they do so; $51.3 \%$ responded that they did not.

Observations related to specific learning criteria are measures of academic achievement.
When the 206 teachers who do consider observations were asked in item 48 if they
explicitly define observations to be evidence solely of a student's achievement of course outcomes, 174 , or $84.9 \%$, responded that they do not. Alternately, only 31 of 423 teachers, $7.3 \%$, include observations that are solely evidence of academic achievement. Depending on the teacher, then, it is common for a student's grade to contain multiple messages, one of which is achievement.

Two items asked teachers how they treat assessments that students submit after the posted due date (Table 29). Student punctuality in submitting work is an example of process grading criteria; it is not a measure of academic proficiency. Nearly all teachers, $97.9 \%$, reported in item 51 that they accept assignments submitted late due to excused absences, and $84.4 \%$ of respondents reported in item 49 that that they accept late work; $15.6 \%$ do not. Results from Item 50 showed that $76.4 \%$ of teachers reported that they reduce the grades of assignments that have been submitted after the due date. This means that $92.0 \%$ of the 423 teachers either do not accept late work or they reduce the grades of late assignments, regardless of the level of achievement the assignments reflect.

Teachers who do so use the letter grade to communicate two messages, one regarding the student's punctuality in submitting assignments and one regarding achievement.

Table 29
Inclusion of Assignments in Grading Determinations
Item Number and Question $\quad$ Yes $\quad$ No $\quad$ DNR
51. Do you allow students to submit late work due to excused absences? 414 (97.9\%) 9 (2.1\%) --
49. Do you accept assignments submitted after the due date? 357 (84.4\%) 66 (15.6\%) --
50. (For those who answered "Yes" to item 47) Do you reduce the grades of late assignments?

323 (76.4\%) 35 (8.3\%) 65 (15.4\%)
*Did not respond. (66 answered "No" to \#49. One additional participant responded to this item.)

Items 52 through 54 explored teachers' use of extra-credit in their grading programs (Table 30). In item 52, $52.2 \%$ of teachers reported that they make extra credit available for students to provide opportunity for them to improve their grades, while $47.8 \%$ of teachers do not offer extra-credit. Extra credit can be an assessment of achievement as long as the work measures student performance against course outcomes. Of those 221 teachers who offer extra credit, 199 reported in item 53 that the extra-credit measures achievement of the course outcomes, and 200 teachers reported that they offer extra credit equally to every student. These two practices preserve the integrity of grades as communications of achievement. A very small minority of teachers offer extra credit that is neither reflective of learning outcomes nor offered equally to all students. The data suggest that $95.0 \%$ of teachers follow practices with extra-credit work that supports grading as a communication of academic achievement.

Table 30
Inclusion of Extra Credit Opportunities

| Item Number and Question | Yes | No | DNR* |
| :--- | :--- | :--- | :--- |
| 52. Is extra credit available for students <br> to improve their grades? | $221(52.2 \%)$ | $202(47.8 \%)$ | -- |

53. (For those who marked "Yes" to 52)

Is the extra credit reflective of course learning outcomes?
$199(47.0 \%) \quad 21(5.0 \%) \quad 203(48.0 \%)$
54. (For those who marked "Yes" to 52)

Is extra credit offered to all students? 200 (47.3\%) $20(4.7 \%) \quad 203(48.0 \%)$
*Did Not Respond. (202 answered "No" to item 52. One other responded "Yes" but skipped \#53 and 54.)

## Values of Sources of Evidence Assigned by Teachers

Item 55 asked teachers to indicate the approximate value they place on sources of evidence commonly used in determining students' final grades. None of these sources is
considered evidence of achievement. The responses allowed the researcher to evaluate how important these sources of evidence are in teachers' deliberations. Table 31 repeats the data results for item 55, originally displayed in Table 22.

Table 31
Item 55. Values of Sources of Evidence in Teachers' Grade Determinations

| Sources of Evidence | Percentage Value in Teachers' Grading System |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0\% | 5\% | 10\% | 15\% | 20\% | 25\% | 30+\% |
| a. Homework | $3.4 \%$ <br> (14) | $\begin{aligned} & \hline 7.9 \% \\ & (33) \end{aligned}$ | $\begin{gathered} \hline 21.9 \% \\ (91) \end{gathered}$ | $\begin{gathered} 14.9 \% \\ (62) \end{gathered}$ | $\begin{gathered} 19.5 \% \\ (81) \end{gathered}$ | $\begin{aligned} & \hline 11.1 \% \\ & (46) \end{aligned}$ | $\begin{gathered} \hline 21.4 \% \\ (89) \end{gathered}$ |
| b. Notebooks/Journals | $\begin{aligned} & 45.0 \% \\ & (187) \end{aligned}$ | $\begin{gathered} 18.3 \% \\ (76) \end{gathered}$ | $\begin{aligned} & 14.7 \% \\ & (61) \end{aligned}$ | $\begin{aligned} & 8.2 \% \\ & (34) \end{aligned}$ | $\begin{aligned} & 4.6 \% \\ & (19) \end{aligned}$ | $\begin{aligned} & 4.3 \% \\ & (18) \end{aligned}$ | $\begin{gathered} 5.0 \% \\ (21) \end{gathered}$ |
| c. Effort | $\begin{aligned} & 46.2 \% \\ & (192) \end{aligned}$ | $\begin{aligned} & 25.0 \% \\ & (104) \end{aligned}$ | $\begin{gathered} 11.1 \% \\ (46) \end{gathered}$ | $\begin{aligned} & 7.0 \% \\ & (29) \end{aligned}$ | $\begin{aligned} & 5.3 \% \\ & (22) \end{aligned}$ | $1.7 \%$ <br> (7) | $\begin{gathered} 3.8 \% \\ (16) \end{gathered}$ |
| d. Class Attendance | $\begin{aligned} & 75.0 \% \\ & (312) \end{aligned}$ | $\begin{gathered} 13.0 \% \\ (54) \end{gathered}$ | $\begin{aligned} & 4.3 \% \\ & (18) \end{aligned}$ | $\begin{aligned} & 2.9 \% \\ & (12) \end{aligned}$ | $\begin{aligned} & 1.2 \% \\ & (5) \end{aligned}$ | $\begin{aligned} & 0.7 \% \\ & \text { (3) } \end{aligned}$ | $\begin{gathered} 2.9 \% \\ (12) \end{gathered}$ |
| e. Work Habits | $\begin{aligned} & 62.3 \% \\ & (259) \end{aligned}$ | $\begin{gathered} 16.3 \% \\ (68) \end{gathered}$ | $\begin{aligned} & 9.9 \% \\ & (41) \end{aligned}$ | $\begin{aligned} & 3.6 \% \\ & (15) \end{aligned}$ | $\begin{aligned} & 2.9 \% \\ & (12) \end{aligned}$ | $\begin{aligned} & 1.9 \% \\ & (8) \end{aligned}$ | $\begin{gathered} 3.1 \% \\ (13) \end{gathered}$ |
| f. Neatness | $\begin{aligned} & 70.7 \% \\ & (294) \end{aligned}$ | $\begin{gathered} 16.8 \% \\ (70) \end{gathered}$ | $\begin{gathered} 5.0 \% \\ (21) \end{gathered}$ | $\begin{aligned} & 2.9 \% \\ & (12) \end{aligned}$ | $\begin{gathered} 1.7 \% \\ (7) \end{gathered}$ | $1.4 \%$ <br> (6) | $1.4 \%$ <br> (6) |
| g. Student Behavior | $\begin{aligned} & 66.8 \% \\ & (278) \end{aligned}$ | $\begin{gathered} 14.4 \% \\ (60) \end{gathered}$ | $\begin{array}{r} 8.7 \% \\ (36) \end{array}$ | $\begin{aligned} & 2.9 \% \\ & (12) \end{aligned}$ | $\begin{aligned} & 3.8 \% \\ & (16) \end{aligned}$ | $1.4 \%$ <br> (6) | $1.9 \%$ <br> (8) |
| h. Class Participation | $\begin{aligned} & 30.8 \% \\ & (128) \end{aligned}$ | $\begin{gathered} 20.9 \% \\ (87) \end{gathered}$ | $\begin{gathered} 21.4 \% \\ (89) \end{gathered}$ | $\begin{gathered} 10.1 \% \\ (42) \end{gathered}$ | $\begin{aligned} & 7.7 \% \\ & (32) \end{aligned}$ | $\begin{aligned} & 3.4 \% \\ & (14) \end{aligned}$ | $\begin{aligned} & 5.8 \% \\ & (24) \end{aligned}$ |
| i. Improvement | $\begin{aligned} & 48.8 \% \\ & (203) \end{aligned}$ | $\begin{gathered} 22.8 \% \\ (95) \end{gathered}$ | $\begin{gathered} 12.3 \% \\ (51) \end{gathered}$ | $\begin{aligned} & 5.0 \% \\ & (21) \end{aligned}$ | $\begin{gathered} 3.6 \% \\ (15) \end{gathered}$ | $\begin{gathered} 2.9 \% \\ (12) \end{gathered}$ | $\begin{aligned} & 4.6 \% \\ & (19) \end{aligned}$ |
| j. Informal Observations | $\begin{aligned} & 55.0 \% \\ & (229) \\ & \hline \end{aligned}$ | $\begin{gathered} 19.5 \% \\ (81) \\ \hline \end{gathered}$ | $\begin{gathered} 12.5 \% \\ (52) \\ \hline \end{gathered}$ | $\begin{aligned} & 4.3 \% \\ & (18) \\ & \hline \end{aligned}$ | $\begin{gathered} 3.6 \% \\ (15) \\ \hline \end{gathered}$ | $\begin{gathered} 1.9 \% \\ (8) \\ \hline \end{gathered}$ | $\begin{aligned} & 3.1 \% \\ & (13) \\ & \hline \end{aligned}$ |

*416 total respondents.

Homework is the most heavily weighted of these sources of evidence. Results indicated that $96.6 \%$ of teachers count homework for some value in the final grades, and
$52.0 \%$ of teachers reported that homework is worth $20 \%$ or more of students' grades. Only $3.9 \%$ of teachers do not include homework assignments in their grading. Class participation was the second-most important of these sources of evidence. Student participation is difficult to define, measure, and apportion equally among students if it is to be a valid assessment of student academic achievement. Nevertheless, $69.2 \%$ of teachers reported they count it for some value, nearly matching the $71.2 \%$ who reported previously in item 44 that they do so. A substantial minority, $27.0 \%$, assign homework $15 \%$ or more of a student's final grade, while $30.8 \%$ of teachers reported that they do not include participation in determining students' grades.

Students' notebooks and journals, effort, and improvement are treated similarly in determining students' final grades. Over half (55.0\%) of teachers report they include students' notebooks and journals in final-grade determinations and $22.1 \%$ of teachers count them for $15 \%$ or more of a student's final grade. Effort is included by $53.8 \%$ of teachers as part of their program, and $28.9 \%$ count effort for $10 \%$ or more of their final grades' value. Finally, $51.2 \%$ of teachers reported that they include students' improvement in their deliberations, with $28.4 \%$ counting effort for $10 \%$ or more of final grades.

While a majority of teachers reported that they do not include any of the other sources-attendance, neatness, student behavior, work habits, and informal observations-in their grade determinations, each of these sources is included in final grades by sizeable minorities of teachers. For example, $12.5 \%$ of teachers, count neatness for $10 \%$ or more of a student's grade; $21.4 \%$ of teachers do the same for students' work habits; and 25.4\% include informal observations in their grading
determinations. Attendance and student behavior are used by the fewest teachers, but even these factors, which do not provide evidence of students' achievement of course learning outcomes, are included to some extent by $37.7 \%$ and $33.2 \%$ of teachers, respectively.

None of these sources of evidence is a measure of academic achievement. That such large numbers of teachers include them in their grading deliberations indicates that, while the grades that Catholic high-school teachers report for their students emphasize achievement, they commonly include sources of evidence that are not indicative of achievement.

Research Question \#3
To what extent are Catholic secondary-school teachers' grading practices consistent with their expressed purposes for grading?

Answering Research Question 3 necessitated a review of some survey items already examined in answering Questions 1 and 2. While this analysis may seem repetitive, the emphasis here has shifted toward identifying the extent to which teachers' practices are consistent with their expressed purpose for grading; responses regarding their practices are examined in this new context.

## Teachers' Expressed Purposes

Item 1 of the Teacher Survey asked teachers to rank in order of importance six purposes for which they report a student's final grade. The results made clear that teachers believe reporting academic achievement is the most important purpose for
grading students, for $73.5 \%$ of teachers ranked "communicating a student's achievement status to the student, parents, school officials, and others" as the most important purpose. Another $12.6 \%$ of teachers ranked it as the second-most important purpose. Not every teacher valued achievement as highly. A total of 5.1\% ranked achievement third among the six choices, $5.3 \%$ rated it fourth. Achievement was ranked fifth by $1.6 \%$ of teachers, while a small percentage of responding teachers, $1.9 \%$, ranked achievement as the lowest of the six choices. While academic achievement is clearly teachers' highest purpose, $8.7 \%$ of the 486 teachers rated achievement in the bottom three choices (Table 32).

Table 32
Item 1 Teachers' Ranking of Grading Purposes

| Rank of Importance | 1 | 2 | 3 | 4 | 5 | 6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| a. "communicate a student's achievement to the student, parents, officials, and others." | $\begin{aligned} & 73.5 \% \\ & (357) \end{aligned}$ | $\begin{gathered} 12.6 \% \\ (61) \end{gathered}$ | $\begin{array}{r} 5.1 \% \\ (25) \end{array}$ | $\begin{gathered} 5.3 \% \\ (26) \end{gathered}$ | $\begin{gathered} 1.6 \% \\ (8) \end{gathered}$ | 1.9\% <br> (9) |
| b. "provide information a student can use for self-evaluation." | $\begin{gathered} 16.7 \% \\ (81) \end{gathered}$ | $\begin{aligned} & 52.7 \% \\ & (256) \end{aligned}$ | $\begin{aligned} & 21.2 \% \\ & (103) \end{aligned}$ | $\begin{array}{r} 5.1 \% \\ (25) \end{array}$ | $\begin{gathered} 3.3 \% \\ (16) \end{gathered}$ | $\begin{array}{r} 1.0 \% \\ \text { (5) } \end{array}$ |
| c. "select or identify students for certain educational paths." | $\begin{array}{r} 0.4 \% \\ \text { (2) } \end{array}$ | $\begin{gathered} 4.9 \% \\ (24) \end{gathered}$ | $\begin{gathered} 16.0 \% \\ (78) \end{gathered}$ | $\begin{aligned} & 21.8 \% \\ & (106) \end{aligned}$ | $\begin{aligned} & 21.4 \% \\ & (104) \end{aligned}$ | $\begin{aligned} & 35.4 \% \\ & (172) \end{aligned}$ |
| d. "motivate students to learn." | $\begin{aligned} & 4.9 \% \\ & (24) \end{aligned}$ | $\begin{gathered} 13.6 \% \\ (66) \end{gathered}$ | $\begin{aligned} & 29.2 \% \\ & (142) \end{aligned}$ | $\begin{aligned} & 28.8 \% \\ & (140) \end{aligned}$ | $\begin{gathered} 19.3 \% \\ (94) \end{gathered}$ | $\begin{array}{r} 4.1 \% \\ (20) \end{array}$ |
| e. "modify student behavior." | $\begin{gathered} 0.8 \% \\ (4) \end{gathered}$ | $\begin{aligned} & 2.9 \% \\ & (14) \end{aligned}$ | $\begin{aligned} & 6.6 \% \\ & (32) \end{aligned}$ | $\begin{gathered} 17.9 \% \\ (87) \end{gathered}$ | $\begin{aligned} & 29.8 \% \\ & (145) \end{aligned}$ | $\begin{aligned} & 42.0 \% \\ & (204) \end{aligned}$ |
| f. "evaluate the effectiveness of instructional programs." | $\begin{aligned} & 3.7 \% \\ & (18) \end{aligned}$ | $\begin{gathered} 13.4 \% \\ (65) \end{gathered}$ | $\begin{aligned} & 21.8 \% \\ & (106) \end{aligned}$ | $\begin{aligned} & 21.0 \% \\ & (102) \end{aligned}$ | $\begin{aligned} & 24.5 \% \\ & (119) \end{aligned}$ | $\begin{gathered} 15.6 \% \\ (76) \end{gathered}$ |

*486 total respondents

Teachers ranked "provide information a student can use for self-evaluation" a
distant second. This purpose was ranked as most important by $16.7 \%$ of teachers, while
$52.7 \%$ ranked it second, and $21.2 \%$ rated it third. Though process- or progress-oriented evidence provides feedback for self-evaluation, communications regarding academic achievement provide directly pertinent data to enhance student learning.

Teachers ranked "motivate students to learn" as the third highest choice. A small percentage, $4.9 \%$, ranked it their highest purpose. Another $13.6 \%$ rated it the second, $29.2 \%$ ranked it third, and $28.8 \%$ rated it fourth. While grades that accurately communicate achievement may motivate students, grades that are intended to motivate students are primarily rewards or punishments for qualities like effort or diligence. The data suggest that the motivational effects of grades are appreciated by teachers, though only a very few consider motivation the primary purpose of grades.

Teachers rated "evaluate the effectiveness of instructional program(s)" fourth. Evaluating program effectiveness requires clear communications about student achievement. It received the highest ranking by $3.7 \%$ of teachers; the data show that most teachers do not consider evaluating programs' effectiveness to be as important as the aforementioned three. The last two purposes, "Select, identify, or group a student for certain educational paths/programs" and "modify student behavior," were rated lowest by teachers. Each of these items was rated the highest purpose by less than one percent of teachers. Selecting students for educational paths requires grades to communicate achievement; behavior is an example of process-oriented criteria.

## Consistency Between Practice and Purpose

Communicating levels of achievement is clearly teachers' highest purpose for grading, but it is not the only purpose. Prior analysis of survey items 33 through 55
established that teachers commonly include sources of evidence that are not indicators of achievement. These sources of evidence fall under "process" and "progress" grading criteria. Additional analysis revealed the extent that teachers' practices were consistent with their expressed purposes for grading.

Item 23 asked teachers if they determine final grades based solely on students' academic achievement. The respondents were nearly equally split, with $49.8 \%$ of 428 teachers reporting that academic achievement was not the sole purpose, and 50.2\% reporting that academic achievement was their sole purpose (Table 33). Combined with the results of item 1, which revealed that $73.5 \%$ of teachers consider achievement to be the most important purpose, it is apparent that a considerable percentage of teachers consciously include assessment evidence that is not related to achievement.

Table 33
Teachers' Who Grade Solely to Report Academic Achievement

| Item Number and Question | Yes | No | DNR* |
| :--- | :--- | :--- | :--- |
| 23. Do you determine grades based <br> solely on achievement? | $215(50.2 \%)$ | $213(49.8 \%)$ | -- |

Teacher responses revealed that teachers may not concur-or may not understand-that some sources of evidence cannot serve multiple purposes (Table 34). Homework, journals, and notebooks are such sources. Specifically, 78.3\% of teachers reported in item 33 that they include homework intended as practice in a student's grade. That percentage is well above the $50.2 \%$ who claim that they grade solely on achievement. Item 55 showed that an even higher percentage of teachers, $96.6 \%$, include homework in their grading determinations, with $52.0 \%$ weighting homework as at least $20 \%$ of their total grade. In item $36,50.8 \%$ of teachers reported that they assess
notebooks and journals and use that data in determining grades. Item 55 revealed that $55.0 \%$ of teachers include assessments of notebooks or journals in students' grades. The inclusion by such large percentages of teachers of both assessment types indicates that a greater percentage of teachers include non-achievement evidence than those who claim they only use achievement-based evidence.

Table 34
Teachers' Inclusion of Homework and Notebooks/Journals in Final Grades

| Item Number and Question | Yes | No |
| :--- | :--- | :--- |
| 33. Do you include homework intended <br> as practice in a student's final grade? | $335(78.3 \%)$ | $93(21.7 \%)$ |
| 36. Do you assess notebooks/journals <br> in determining students'grades? | $217(50.8 \%)$ | $210(49.2 \%)$ |

55. Percentage Value of Sources of Evidence in Teachers' Grade Determinations

|  | 0\% | 5\% | 10\% | 15\% | 20\% | 25\% | 30+\% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Homework Assignments | $\begin{aligned} & \hline 3.4 \% \\ & (14) \end{aligned}$ | $\begin{gathered} \hline 7.9 \% \\ (33) \end{gathered}$ | $\begin{gathered} 21.9 \% \\ (91) \end{gathered}$ | $\begin{gathered} 14.9 \% \\ (62) \end{gathered}$ | $\begin{aligned} & \hline 19.5 \% \\ & (81) \end{aligned}$ | $\begin{aligned} & \hline 11.1 \% \\ & (46) \end{aligned}$ | $\begin{gathered} \hline 21.4 \% \\ (89) \end{gathered}$ |
| Notebooks/Journals | $\begin{aligned} & 45.0 \% \\ & (187) \\ & \hline \end{aligned}$ | $\begin{gathered} 18.3 \% \\ (76) \end{gathered}$ | $\begin{gathered} 14.7 \% \\ (61) \\ \hline \end{gathered}$ | $\begin{aligned} & 8.2 \% \\ & (34) \\ & \hline \end{aligned}$ | $\begin{aligned} & 4.6 \% \\ & (19) \end{aligned}$ | $\begin{aligned} & 4.3 \% \\ & (18) \end{aligned}$ | $\begin{gathered} 5.0 \% \\ (21) \\ \hline \end{gathered}$ |

Survey items addressing teachers' use of process-oriented sources of evidence indicated that higher percentages of teachers include this type of evidence than the $50.2 \%$ who claim that their grades solely communicate academic achievement. "Effort" is not an indicator of achievement, and $57.3 \%$ of teachers reported in item 39 that they include effort in determining grades (Table 35). In addition, $71.2 \%$ of teachers reported in item 44 that they include "class participation" in their grading determinations, and $63.7 \%$ of teachers reported in item 45 that they do not define "class participation" solely as
evidence of student achievement of course outcomes. In Item 46, 55.3\% of teachers reported that they include improvement over time in determining grades.

Finally, Item 47 asked if teachers include classroom observations in their grade determinations; $48.7 \%$ reported that they did so. When clearly defined, observations can provide evidence of academic achievement, but only 31 teachers, or $15.0 \%$, reported in item 48 that they consider observations solely to be evidence of achievement. It is clear from these survey items that a higher percentage of teachers employ non-achievement grading criteria than the percentage of teachers who report that achievement is the only purpose for which they report grades.

Table 35
Teachers' Use of Process-and Progress-Oriented Grading Evidence in Grading

| Item Number and Question | Yes | No |
| :--- | :--- | :--- |
| 39. Do you include "effort?" | $243(57.3 \%)$ | $181(42.7 \%)$ |
| 40. Do you include "class attendance?" | $94(22.2 \%)$ | $330(77.8 \%)$ |
| 41. Do you include "work habits?" | $169(39.9 \%)$ | $255(60.1 \%)$ |
| 42. Do you include "neatness?" | $132(31.1 \%)$ | $292(68.9 \%)$ |
| 43. Do you include "behavior?"" | $126(29.7 \%)$ | $298(70.3 \%)$ |
| 44. Do you include "class participation?"" | $302(71.2 \%)$ | $122(28.8 \%)$ |
| 46. Do you include "improvement?" | $234(55.3 \%)$ | $189(44.7 \%)$ |
| 47. Do you include "observations?" | $206(48.7 \%)$ | $217(51.3 \%)$ |

*424 Responding teachers

## Teachers Who Claim to Grade Solely for Achievement

Survey data were examined to uncover how closely teachers' grading practices align with their expressed purposes for grading. Respondents to item 23, which asked if
teachers grade solely to communicate academic achievement, were separated by the responses they gave. Two-hundred-fifteen of 428 teachers reported that their system of determining grades was based solely on students' achievement. Those 215 teachers' responses were analyzed to determine if their practices included only achievement-based grading criteria (Appendix O). Nine survey items asked if teachers included various sources of evidence that are indicators of the process by which students learn or the progress students have made over time, not of achievement (Table 36).

Table 36
Sources of Process- and Progress-Oriented Grading and Reporting Evidence for the 215 Teachers Who Reported in Item 23 They Grade Only Achievement

| Item Number and Question | Yes | No |
| :--- | :--- | :--- |
| 33. Do you include homework <br> intended as practice? | $175(81.4 \%)$ | $40(18.6 \%)$ |
| 36. Do you assess notebooks or journals? | $98(45.6 \%)$ | $117(54.4 \%)$ |
| 39. Do you include "effort?" | $84(39.1 \%)$ | $131(60.9 \%)$ |
| 40. Do you include "class attendance?" | $30(14.0 \%)$ | $185(86.0 \%)$ |
| 41. Do you include "work habits?" | $51(23.7 \%)$ | $164(76.3 \%)$ |
| 42. Do you include "neatness?" | $50(23.3 \%)$ | $165(76.7 \%)$ |
| 43. Do you include "behavior?" | $28(13.0 \%)$ | $187(87.0 \%)$ |
| 44. Do you include "participation?" | $120(55.8 \%)$ | $95(44.2 \%)$ |
| 46. Do you include "improvement?" | $86(40.0 \%)$ | $129(60.0 \%)$ |

These data revealed that large numbers of teachers contradict their own assertions that they grade students solely to report achievement. Most prominent was the result for item 33, which asked teachers if they include homework intended as practice in students' final grades. Defined as practice, homework is not a measure of achievement, yet $81.4 \%$
of the 215 teachers include homework assignments intended as practice in their grading determinations. Item 55, which asked these teachers to identify the value they place on these same sources of evidence, revealed that a higher percentage of these teachers, $97.7 \%$, place some value on homework assignments in determining a student's final grade. Substantial percentages of teachers who asserted they grade solely to report academic achievement reported that they include each of these nine process- or progressoriented sources of evidence in their grade determinations. Students' notebooks or journals are included by $45.6 \%$ of teachers in final grades, while $40.0 \%$ include improvement, $39.1 \%$ include effort, $23.7 \%$ include work habits, $23.3 \%$ include neatness, $14.0 \%$ include student attendance, and $13.0 \%$ include student behavior in their grade determinations. These results were mirrored in item 55 (Table 37).

Class participation could be interpreted as achievement-based if it is clearly defined, and $55.8 \%$, or 120 of the 215 teachers, reported that they include this source of evidence in determining students' grades. When those 120 were asked in item 45 if they defined class participation as evidence of a student's achievement of course learning outcomes, $87.4 \%$ reported that they do not. In sum, data from these nine items indicate that most teachers who believe they are reporting students' grades to communicate their academic achievement include sources that are not evidence of academic achievement.

Data provided by Catholic high-school teachers in this survey indicate that academic achievement is by a wide margin the most important purpose they have in reporting grades for students, but it is not the only purpose. Teachers' grading practices indicate that there are multiple messages blended into students' grades. Many teachers acknowledge that they are reporting several messages in their final grades, and their
grading practices reflect those multiple messages. Others hold achievement as their sole purpose for reporting grades; their practices contradict that assertion. The data indicate that teachers' practices are inconsistent with their expressed purposes for grading.

Table 37
Item 55. Values of Sources of Evidence in Teachers' Grade Determinations for Teachers Who Report They Grade Students Solely for Academic Achievement

| Sources of Evidence | Percentage Value in Teachers' Grading System |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0\% | 5\% | 10\% | 15\% | 20\% | 25\% | 30+\% |
| a. Homework | $\begin{gathered} \hline 2.3 \% \\ (5) \end{gathered}$ | $\begin{aligned} & \hline 7.0 \% \\ & (15) \end{aligned}$ | $\begin{gathered} 24.8 \% \\ (53) \end{gathered}$ | $\begin{gathered} 15.0 \% \\ (32) \end{gathered}$ | $\begin{gathered} \hline 21.5 \% \\ (46) \end{gathered}$ | $\begin{gathered} \hline 9.8 \% \\ (21) \end{gathered}$ | $\begin{gathered} 19.6 \% \\ (42) \end{gathered}$ |
| b. Notebooks/Journals | $\begin{aligned} & 50.5 \% \\ & (108) \end{aligned}$ | $\begin{gathered} 15.9 \% \\ (34) \end{gathered}$ | $\begin{aligned} & 13.6 \% \\ & (29) \end{aligned}$ | $\begin{aligned} & 9.3 \% \\ & (20) \end{aligned}$ | $2.8 \%$ <br> (6) | $\begin{gathered} 3.3 \% \\ (7) \end{gathered}$ | 4.7\% <br> (10) |
| c. Effort | $\begin{aligned} & 65.4 \% \\ & (140) \end{aligned}$ | $\begin{gathered} 18.7 \% \\ (40) \end{gathered}$ | $\begin{aligned} & 6.5 \% \\ & (14) \end{aligned}$ | $\begin{aligned} & 4.7 \% \\ & (10) \end{aligned}$ | $\begin{gathered} 2.8 \% \\ (6) \end{gathered}$ | $\begin{gathered} 0.0 \% \\ (0) \end{gathered}$ | $1.9 \%$ <br> (4) |
| d. Class Attendance | $\begin{aligned} & 84.1 \% \\ & (180) \end{aligned}$ | $\begin{aligned} & 8.9 \% \\ & (19) \end{aligned}$ | $\begin{gathered} 2.3 \% \\ (5) \end{gathered}$ | $\begin{gathered} 0.5 \% \\ (1) \end{gathered}$ | $\begin{gathered} 1.4 \% \\ \text { (3) } \end{gathered}$ | $\begin{gathered} 0.5 \% \\ (1) \end{gathered}$ | $\begin{gathered} 2.3 \% \\ (5) \end{gathered}$ |
| e. Work Habits | $\begin{aligned} & 78.0 \% \\ & (167) \end{aligned}$ | $\begin{gathered} 10.7 \% \\ (23) \end{gathered}$ | $\begin{aligned} & 6.1 \% \\ & (13) \end{aligned}$ | $\begin{aligned} & 0.9 \% \\ & (2) \end{aligned}$ | $1.9 \%$ <br> (4) | $\begin{aligned} & 0.0 \% \\ & (0) \end{aligned}$ | $\begin{aligned} & 2.3 \% \\ & (5) \end{aligned}$ |
| f. Neatness | $\begin{aligned} & 80.4 \% \\ & (172) \end{aligned}$ | $\begin{array}{r} 8.9 \% \\ (19) \end{array}$ | $\begin{gathered} 5.6 \% \\ (12) \end{gathered}$ | $\begin{aligned} & 2.3 \% \\ & (5) \end{aligned}$ | $1.4 \%$ <br> (3) | $\begin{aligned} & 0.5 \% \\ & (1) \end{aligned}$ | $\begin{aligned} & 0.9 \% \\ & \text { (2) } \end{aligned}$ |
| g. Student Behavior | $\begin{aligned} & 82.7 \% \\ & (177) \end{aligned}$ | $\begin{array}{r} 8.4 \% \\ (18) \end{array}$ | $\begin{gathered} 8.7 \% \\ (8) \end{gathered}$ | $2.9 \%$ <br> (2) | $\begin{aligned} & 3.8 \% \\ & (5) \end{aligned}$ | $\begin{aligned} & 1.4 \% \\ & (1) \end{aligned}$ | $1.9 \%$ <br> (3) |
| h. Class Participation | $\begin{aligned} & 45.8 \% \\ & (98) \end{aligned}$ | $\begin{gathered} 20.6 \% \\ (44) \end{gathered}$ | $\begin{gathered} 21.4 \% \\ (26) \end{gathered}$ | $\begin{gathered} 10.1 \% \\ (18) \end{gathered}$ | $\begin{aligned} & 7.7 \% \\ & (13) \end{aligned}$ | $3.4 \%$ <br> (4) | $\begin{aligned} & 5.8 \% \\ & (11) \end{aligned}$ |
| i. Improvement | $\begin{aligned} & 63.1 \% \\ & (135) \end{aligned}$ | $\begin{gathered} 15.9 \% \\ (34) \end{gathered}$ | $\begin{gathered} 12.3 \% \\ (19) \end{gathered}$ | $\begin{aligned} & 5.0 \% \\ & (7) \end{aligned}$ | $\begin{aligned} & 3.6 \% \\ & (9) \end{aligned}$ | $\begin{aligned} & 2.9 \% \\ & (3) \end{aligned}$ | $\begin{aligned} & 4.6 \% \\ & (7) \end{aligned}$ |
| j. Informal Observations | $\begin{aligned} & 68.7 \% \\ & (147) \end{aligned}$ | $\begin{gathered} 13.6 \% \\ (29) \\ \hline \end{gathered}$ | $\begin{gathered} 12.5 \% \\ (16) \\ \hline \end{gathered}$ | $\begin{aligned} & 4.3 \% \\ & (4) \\ & \hline \end{aligned}$ | $\begin{gathered} 3.6 \% \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} 1.9 \% \\ \text { (3) } \\ \hline \end{gathered}$ | $\begin{aligned} & 3.1 \% \\ & (5) \\ & \hline \end{aligned}$ |

*215 answered "Yes" to item 23. One responded "Yes" but chose not to respond to 55.

## Research Question 4

To what extent are Catholic secondary school teachers' grading practices consistent with the school's purpose for grading?

The final Research Question explored the extent to which Catholic high-school teachers' grading practices are consistent with their schools' purpose for grading. This section's content differs from previous sections. While survey responses provide critical data to answer this question, grading-policy statements found in schools' Parent/Student Handbooks and other documents have been included to provide depth to the data.

## Schools' Purposes for Grading

The initial task was to discover how many schools have adopted and made explicit formal, school-wide statements of purpose for which they report students' purposes. Fifty administrators began a 31 -item online survey, and 41 of those administrators from 26 Catholic secondary schools in Region XI completed the survey. The 31 items were identical to 31 items on the teacher survey in order to compare the responses, allowing the researcher to assess the degree of alignment that exists between teachers' and administrators' beliefs about grading purposes and their understanding of school-wide grading policies.

Item 10 in both the Administrator Survey and Teacher Survey asked respondents if their schools had an official statement of purpose for grading. Results showed that $47.9 \%$ of administrators reported that their school has an official statement of purpose for grading. A lower percentage of teachers, $40.4 \%$, reported in the Teacher Survey that their school has an official statement of purpose for grading (Table 38). The difference
suggests that a gap might exist between some administrators' and teachers' awareness of the existence of official school statements of purpose.

Table 38
Existence of Official Statements of Purpose for Grading

| Item Number and Question | Administrator Survey |
| :--- | :---: | :--- | :--- | :--- |
| Yes |  |$\quad$ No $\quad$ DNR*

*Did Not Respond. (25 administrators answered "No" to \#10; 3 additional administrators skipped \#11.)

| Teacher Survey |  |  |  |
| :---: | :---: | :---: | :---: |
| Item Number and Question | Yes | No | DNR* |
| 10. Does your school have an official statement of purpose for grading? | 183 (40.4\%) | 270 (59.6\%) | -- |
| 11. (For those who marked "Yes" to 10) |  |  |  |
| Does the statement identify as the primary purpose achievement? | 150 (33.1\%) | 24 (5.3\%) | 279 (61.6\%) |

*Did Not Respond. (270 answered "No" to \#10; 9 others did not answer 11.)

Item 11 in each survey asked teachers and administrators who responded "yes" to item 10 if their school's statement of purpose identified achievement as the primary purpose for why grades are reported. Results found that $33.3 \%$ of administrators and $33.1 \%$ of teachers reported that their school states that achievement is the primary purpose, and $8.3 \%$ of administrators and $5.3 \%$ of teachers reported that achievement is not the primary purpose. The thematic analysis of Catholic high schools' published grading policies found that 15 , or $28.8 \%$ of the 52 schools, published an explicit statement of purpose for grading (Appendix C). A total of 37 schools did not publish a purpose for which they report grades. Of those 37, nine explained that the school policy
is to leave the development of grading policies to each teacher, and five others leave the development of grading policies to each academic department. It is unclear if these schools implicitly included purpose with policies. While $28.8 \%$ is a markedly lower percentage than what was reported in surveys by teachers (40.4\%) and administrators (47.9\%), it is possible that some schools have grading purposes not accessible online.

All 15 schools that expressed a purpose for grading included academic achievement as at least part of the purpose. There were a variety of explanations represented by these 15 statements, some of which presented singular purpose, while others included multiple purposes. Ten schools indicated that academic achievement was the sole purpose for which they report grades. One school contextualized the meaning of its grades: "Grades are a form of shorthand, i.e., they are a capsule letter from the teacher to parents, colleges, and even future employers in which a judgment is expressed regarding a student's past performance in a particular subject" (Appendix Q).

The other five schools that published a grading policy qualified the meaning of their grades to include more than communications of achievement. One school's policy began, "The primary purpose of evaluation is to determine the extent to which a student has achieved success in terms of course objectives," then added,

While grades do not normally reflect behavior, teachers are permitted to make a participation grade part of the overall grade and to deduct points from this grade when the student disrupts the academic flow of the class or fails to bring needed materials to class" (Appendix R).

Another mixed seven non-achievement factors with three different descriptors of achievement: "When grading a student's performance, teachers consider each of the following: initiative, application of facts and principles, effort, accuracy, pride in work,
achievement on tests, class preparation, meeting deadlines, attentive listening, and participation" (Appendix S).

## Administrators' Beliefs, Teachers' Purposes

The next step was to determine the degree of alignment between administrators' beliefs regarding why their teachers report grades and the purposes teachers have for reporting grades. Survey item 1 on the Administrator Survey was identical to item 1 of the Teacher Survey. It asked administrators to rank in importance the purpose for which teachers in their schools report a student's summative grade (Table 39).

| Table 39 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| "Teachers report a student's grade in order to..." |  |  |  |  |  |  |
| Rank of Importance | 1 | 2 | 3 | 4 | 5 | 6 |
| a. "communicate a student's achievement status to the student, parents, school officials, and others." | $\begin{gathered} 91.8 \% \\ (45) \end{gathered}$ | $\begin{gathered} 4.1 \% \\ (2) \end{gathered}$ | $\begin{gathered} 0.0 \% \\ (0) \end{gathered}$ | $\begin{gathered} 0.0 \% \\ (0) \end{gathered}$ | $\begin{gathered} 2.0 \% \\ (1) \end{gathered}$ | $\begin{gathered} 2.0 \% \\ (1) \end{gathered}$ |
| b. "provide information for self-evaluation." | $2.1 \%$ <br> (1) | $\begin{aligned} & 68.1 \% \\ & (32) \end{aligned}$ | $\begin{gathered} 19.1 \% \\ (9) \end{gathered}$ | $\begin{aligned} & 4.3 \% \\ & (2) \end{aligned}$ | $6.4 \%$ <br> (3) | $\begin{gathered} 0.0 \% \\ (0) \end{gathered}$ |
| c. "select students for educational programs." | $\begin{aligned} & 0.0 \% \\ & (0) \end{aligned}$ | $10.5 \%$ <br> (4) | $15.8 \%$ <br> (6) | $\begin{gathered} 13.2 \% \\ (5) \end{gathered}$ | $\begin{aligned} & 31.6 \% \\ & (12) \end{aligned}$ | $\begin{aligned} & 28.9 \% \\ & (11) \end{aligned}$ |
| d. "motivate students to learn." | $\begin{aligned} & 0.0 \% \\ & (0) \end{aligned}$ | $11.9 \%$ <br> (5) | $\begin{aligned} & 45.2 \% \\ & (19) \end{aligned}$ | $\begin{aligned} & 28.6 \% \\ & (12) \end{aligned}$ | $9.5 \%$ <br> (4) | $4.8 \%$ <br> (2) |
| e. "modify student behavior." | $\begin{aligned} & 5.0 \% \\ & (2) \end{aligned}$ | $\begin{gathered} 10.0 \% \\ (4) \end{gathered}$ | $5.0 \%$ <br> (2) | $\begin{gathered} 17.5 \% \\ (7) \end{gathered}$ | $\begin{aligned} & 30.0 \% \\ & (12) \end{aligned}$ | $\begin{aligned} & 32.5 \% \\ & (13) \end{aligned}$ |
| f. "evaluate the effectiveness of instructional programs." | $\begin{gathered} 0.0 \% \\ (0) \\ \hline \end{gathered}$ | $\begin{gathered} 6.8 \% \\ (3) \\ \hline \end{gathered}$ | $\begin{aligned} & 27.3 \% \\ & (12) \end{aligned}$ | $\begin{aligned} & 25.0 \% \\ & (11) \end{aligned}$ | $\begin{gathered} 18.2 \% \\ (8) \\ \hline \end{gathered}$ | $\begin{aligned} & 22.7 \% \\ & (10) \end{aligned}$ |

[^1]Administrators' responses matched teachers' responses in the ranking of the six purposes for grading (Table 40). There were noteworthy differences in emphasis. A total of $91.8 \%$ of the 50 responding administrators ranked "Communicating a student's achievement status to the student, parents, school officials, and others" as the number one purpose. The Teacher Survey results revealed that $73.5 \%$ of teachers considered communicating achievement to be the primary purpose. Thus, a noticeably higher percentage of administrators than teachers believe that communicating achievement is the primary purpose for reporting grades. This difference reveals a degree of inconsistency between administrators and teachers in the purpose for grading.

Table 40
Teachers' Ranking of Grading Purposes (Teacher Survey Item 1)

| "I report a student's final grade in order to..." |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Rank of Importance | 1 | 2 | 3 | 4 | 5 | 6 |
| a. 'communicate a student's achievement status to the student and others." | $\begin{aligned} & 73.5 \% \\ & (357) \end{aligned}$ | $\begin{aligned} & 12.6 \% \\ & (61) \end{aligned}$ | $\begin{aligned} & 5.1 \% \\ & (25) \end{aligned}$ | $\begin{aligned} & 5.3 \% \\ & (26) \end{aligned}$ | $\begin{aligned} & 1.6 \% \\ & (8) \end{aligned}$ | $\begin{aligned} & 1.9 \% \\ & (9) \end{aligned}$ |
| b. "provide information for self-evaluation." | $\begin{aligned} & 16.7 \% \\ & (81) \end{aligned}$ | $\begin{aligned} & 52.7 \% \\ & (256) \end{aligned}$ | $\begin{aligned} & 21.2 \% \\ & (103) \end{aligned}$ | $\begin{aligned} & 5.1 \% \\ & (25) \end{aligned}$ | $\begin{aligned} & 3.3 \% \\ & (16) \end{aligned}$ | $\begin{aligned} & 1.0 \% \\ & (5) \end{aligned}$ |
| c. "select or identify students for educational programs." | $0.4 \%$ <br> (2) | $\begin{aligned} & 4.9 \% \\ & (24) \end{aligned}$ | $\begin{aligned} & 16.0 \% \\ & (78) \end{aligned}$ | $\begin{aligned} & 21.8 \% \\ & (106) \end{aligned}$ | $\begin{aligned} & 21.4 \% \\ & (104) \end{aligned}$ | $\begin{aligned} & 35.4 \% \\ & (172) \end{aligned}$ |
| d. "motivate students to learn." | $\begin{aligned} & 4.9 \% \\ & (24) \end{aligned}$ | $\begin{aligned} & 13.6 \% \\ & (66) \end{aligned}$ | $\begin{aligned} & 29.2 \% \\ & (142) \end{aligned}$ | $\begin{aligned} & 28.8 \% \\ & (140) \end{aligned}$ | $\begin{aligned} & 19.3 \% \\ & (94) \end{aligned}$ | $\begin{aligned} & 4.1 \% \\ & (20) \end{aligned}$ |
| e. "modify student behavior." | $0.8 \%$ <br> (4) | $\begin{aligned} & 2.9 \% \\ & (14) \end{aligned}$ | $\begin{aligned} & 6.6 \% \\ & (32) \end{aligned}$ | $\begin{aligned} & 17.9 \% \\ & (87) \end{aligned}$ | $\begin{aligned} & 29.8 \% \\ & (145) \end{aligned}$ | $\begin{aligned} & 42.0 \% \\ & (204) \end{aligned}$ |
| f. "evaluate the effectiveness of instructional programs." | $\begin{aligned} & 3.7 \% \\ & (18) \end{aligned}$ | $\begin{aligned} & 13.4 \% \\ & (65) \\ & \hline \end{aligned}$ | $\begin{aligned} & 21.8 \% \\ & (106) \end{aligned}$ | $\begin{aligned} & 21.0 \% \\ & (102) \end{aligned}$ | $\begin{aligned} & 24.5 \% \\ & (119) \end{aligned}$ | $\begin{aligned} & 15.6 \% \\ & (76) \end{aligned}$ |

*486 teacher respondents
Administrators' ranked, "Provide information that a student can use for selfevaluation," as the second-most important purpose, with $68.1 \%$ of respondents ranking it
as the second-highest purpose, and $2.1 \%$ ranking it the primary purpose. Again, while teachers also ranked this purpose second, the percentage of teachers who valued it second, $52.7 \%$, was notably lower than the administrators' $68.1 \%$. In addition, $16.7 \%$ of teachers considered "provid[ing] information...for self-evaluation" to be the primary purpose. Feedback in the form of a letter grade does not provide detailed feedback, although this purpose could be related to achievement, depending on what is being evaluated by the teacher.
"Motivate students to learn" was administrators' third-highest purpose, with $45.2 \%$ of administrators reported it as the third-highest purpose. Results showed that $11.9 \%$ of administrators considered it the second-highest purpose, while $28.6 \%$ ranked it fourth of the six choices. Grading in order to affect student motivation is not consistent with achievement-based grading. Teachers also ranked motivating students to learn third, though teachers' responses were distributed more widely across the six ranking options than were the administrators.
"Evaluate the effectiveness of instructional programs," "select... a student for certain educational paths/programs," and "modify student behavior" were rated fourth, fifth, and sixth of the six choices by administrators, respectively. These rankings aligned closely with the teachers' rankings. The results of item 1 indicated that Catholic highschool teachers generally agree with Catholic high-school administrators in the ranking of these six purposes, though the data revealed that a noticeably higher percentage of administrators consider achievement the primary purpose compared to teachers. This difference suggests that a number of administrators may presume incorrectly what their teachers' grades actually communicate.

The analysis of the 52 schools' grading policy documents revealed a substantial amount of confusion regarding the meaning of the grades their teachers report as schools themselves define them. An examination of the descriptive terms that correspond to letter grades in these documents found that 16 schools mix criteria-based descriptors ("superior") and normative descriptors ("above-average," "average") in the same grading scale (Appendix S). Mixing these two types of descriptive adjectives can confuse receivers regarding the meaning and purpose of the grades. Nine schools used criteriabased descriptors, and six schools used normative descriptors. Another 18 schools provided only percentage or GPA equivalents for their grades without descriptors, and three published no information about what their schools' grades mean. Such ambiguity can only lend to confusion regarding what teachers, administrators, students, and parents believe their schools' grades mean and what the purpose of grading is.

## Existence of School-wide Standards

Item 12 of both surveys asked administrators and teachers if their schools have school-wide content and skills standards in each subject area. The existence of such standards supports grading based on academic achievement, and 59.6\% of administrators reported that their school does have content and skills standards in each subject area. A higher percentage of teachers, $65.6 \%$, reported that their school has content and skills standards. In addition, $51.1 \%$ of administrators and $50.8 \%$ of teachers reported in item 14 that their school had established benchmarks for assessing students' achievement of each learning goal. When administrators and teachers were asked in item 13 if their school required teachers to assess and grade students' achievement of those standards,
fewer respondents reported affirmatively. A total of $40.2 \%$ of administrators and 43.7\% of teachers reported that they were required to do so. Without standards against which to measure student performance, teachers must determine for themselves the criteria for grading students. For schools that do not require teachers to use the standards they have established to assess and grade students' performances, those standards are more accurately described as guidelines.

There is ambiguity among a sizeable portion of Catholic high schools regarding the purpose for which their teachers assign grades. Analysis of data from the Administrator Survey underscores that ambiguity. Administrators believe academic achievement to be the primary purpose for reporting students' grades, though fewer than half of administrators, $47.9 \%$, report that their own school publishes an official purpose for grading. Reviews of available school policies revealed that $28.8 \%$ of the 52 schools have articulated a purpose for grading in their policy guidebooks. In the absence of such guidance, teachers grading practices and purposes can and do vary substantially.

## Ancillary Findings

In the course of answering the four research questions, two additional areas emerged which produced notable findings. First, data were analyzed to see if teachers’ grading purposes differed depending on the subject areas they teach. Second, because a common recommendation in the research literature (McMunn, Schenk, \& McColskey, 2003; Stiggins \& Conklin, 1988) is for teachers to receive training in grading in order to improve their practice, the survey data were analyzed to discover if formal training in
education or additional training in grading influenced teachers' attitudes towards the purpose for reporting grades.

## Grading Purpose and Teachers' Subject Areas

The first area of ancillary inquiry was to analyze the data by separating the responses by teachers' respective subject areas. Teachers were asked in item 57 to identify which academic subject area they primarily teach students. Nine options were provided (Table 41). The largest group represented among the 411 respondents was English teachers, who comprised $21.7 \%$ of the responding teachers. Physical Education teachers (3.9\%) and Computer/Digital Media teachers (2.4\%) were the smallest represented groups.

Table 41
Teachers' Primary Subject Areas (Item 57)

| Subject Area | Number |
| :--- | :--- |
| English | $89(21.7 \%)$ |
| Religious Studies | $76(18.5 \%)$ |
| Mathematics | $69(16.8 \%)$ |
| History/Social Studies | $58(14.1 \%)$ |
| Science | $56(13.6 \%)$ |
| Foreign Language | $37 \quad(9.0 \%)$ |
| Visual and Performing Arts | $33 \quad(8.0 \%)$ |
| Physical Education | $16 \quad(3.9 \%)$ |
| Computers/Digital Media | $10 \quad(2.4 \%)$ |

[^2]As in the case of teachers' years of experience, examining the survey data by teachers' subject areas revealed that teachers ranked the six purposes for grading no differently than the aggregate group of teachers, regardless of academic subject area. Every subject-area group of teachers ranked academic achievement as the primary purpose for reporting grades, followed in order by "provide information a student can use for self-evaluation," "motivate students to learn," "evaluate the effectiveness of instructional program(s)," "select, identify, or group a student for certain educational paths/programs," and "modify student behavior."

Item 23, which asked teachers if they grade their students solely on their academic achievement, revealed substantial variation when the data were analyzed by separating teachers into their specific subject areas. These percentages ranged from a low of $21.2 \%$ (Visual and Performing Arts) to a high of $65.2 \%$ (Mathematics). Three of the other seven areas, History/Social Studies (53.4\%), English (52.8\%), and Religious Studies (46.1\%) produced results close to the overall average of $50.2 \%$, while responses of teachers of the remaining four subject areas showed noticeably wider variation. Specifically, $64.9 \%$ of Foreign Language teachers reported that they grade solely on achievement, while 40.7\% of Science teachers, 30.0\% of Computers/Digital Media teachers, and 25.0\% of Physical Education teachers did so. Sample sizes of Computers/Digital Media and Physical Education teachers were smaller than for teachers in the other seven subject areas. Teachers as a whole were nearly evenly split when asked if their system of grading was based solely on students' academic achievement, but when teachers' responses were separated into teachers' subject areas, the data revealed substantial variation from one academic subject to another (Table 42).

Table 42
Item 23 Grade Reporting for Academic Achievement by Teachers' Subject Area
"Is your system of determining grades based solely on academic achievement?"

| Subject Area | Yes | No |
| :--- | :--- | :--- |
| Mathematics | $45(65.2 \%)$ | $24(34.8 \%)$ |
| Foreign Language | $24(64.9 \%)$ | $13(35.1 \%)$ |
| Science | $34(60.7 \%)$ | $22(39.3 \%)$ |
| English | $47(52.8 \%)$ | $42(47.2 \%)$ |
| History/Social Studies | $27(46.6 \%)$ | $31(53.4 \%)$ |
| Religious Studies | $35(46.1 \%)$ | $41(53.9 \%)$ |
| Computers/Digital Media | $3(30.0 \%)$ | $7(70.0 \%)$ |
| Physical Education | $4(25.0 \%)$ | $12(75.0 \%)$ |
| Visual and Performing Arts | $7(21.2 \%)$ | $26(78.8 \%)$ |

## Educators' Formal Training in Education

The final portions of the Teacher and Administrator Surveys asked respondents to report the training they have received in grading. Teachers were asked in item 59 to report the highest level of formal education they have completed. While a substantial majority of teachers, $77.4 \%$, reported that they have completed a degree of some kind in the field of education, $22.6 \%$ of teachers reported that they have not done so. Administrators' responses (in item 25) were similar: $81.4 \%$ reported they have earned a degree in education, and $18.6 \%$ reported that they have not (Table 43).

Table 43
Teachers' and Administrators' Levels of Formal Education in the Field of Education

|  | Teachers <br> 411 Respondents | Administrators <br> 43 Respondents |
| :--- | :---: | :---: |
| No Degree in Education | $93(22.6 \%)$ | $8(18.6 \%)$ |
| Bachelor's Degree in Education | $20(4.9 \%)$ | $2(4.7 \%)$ |
| Teaching Credential | $148(36.0 \%)$ | $5(11.6 \%)$ |
| Master's Degree in Education | $144(35.0 \%)$ | $26(60.5 \%)$ |
| Doctorate in Education | $6(1.5 \%)$ | $2(4.7 \%)$ |

Teachers and administrators were asked if their formal educational training included any courses in grading; $34.5 \%$ of teachers and $34.9 \%$ of administrators responded that their coursework did include a course in grading. The majority of teachers and administrators- $65.5 \%$ and $65.1 \%$, respectively—reported that they had taken no courses in grading. Moreover, $73.0 \%$ of teachers and $69.8 \%$ of administrators reported that their school had not trained its teachers in the practice of grading as part of its professional development program (Table 44).

One item in each survey asked teachers (Item 63) and administrators (Item 30) about their training in assessment. While grading is not synonymous with assessment, the two overlap, as grading is the translation into a letter symbol of teachers' evaluations of student performance in a course. Item 63 of the Teacher Survey asked if their school had trained the faculty in the practice of assessment as part of their professional development. Slightly more than half of teachers, $53.8 \%$, responded that their school had trained the faculty in assessment, while $58.1 \%$ of administrators reported their school had done so.

Table 44
Teachers and Administrators Who Have Received Training in Grading
Teacher Survey

| Item Number and Question | Yes | No |
| :--- | :--- | :--- |
| 61. Did your formal educational training <br> include any courses in grading? | $34.5 \%(142)$ | $65.5 \%(269)$ |
| 62. Does your school train its faculty <br> in the practice of grading? | $27.0 \%(111)$ | $73.0 \%(300)$ |
| 63. Does your school trained its faculty |  | $53.8 \%(221)$ |
| in the practice of assessment? |  | $43.2 \%(190)$ |
| 411 Teacher respondents |  |  |

## Administrator Survey

| Item Number and Question | Yes | No |
| :--- | :--- | :--- |
| 27. Did your formal educational training <br> include any courses in grading? | $34.9 \%(15)$ | $65.1 \%(28)$ |
| 28. Has your school trained its faculty <br> in the practice of grading? | $30.2 \%(13)$ | $69.8 \%(30)$ |
| 30. Has your school trained its faculty <br> in the practice of assessment? | $58.1 \%(25)$ | $41.9 \%(18)$ |

*43 Administrator Respondents

## Grading Purpose and Teachers' Levels of Education

A final area of research explored whether teachers' differing levels of formal education might influence the purpose for which they grade students. Item 23 asked teachers if they report grades solely to communicate achievement. The item's responses were grouped by respondents' levels of formal training in education. Analysis revealed that every subgroup produced roughly the same percentage response (Table 45).

Teachers' level of formal training in education produced little variation. Even those teachers who reported that they had taken courses in grading or had been trained in grading by their schools did not respond to survey items in ways that distinguished them from those teachers who had not been trained in grading. Analysis of the data in this matter is notable for the lack of variation in grading practices between teachers who have and who have not received training in grading.

Table 45
Item 23
Grade Reporting for Academic Achievement by Teachers' Level of Education "Is your system of determining grades based solely on academic achievement?"

| Education Level | Yes | No |
| :--- | :--- | :--- |
| No Degree in Education | $46(49.5 \%)$ | $47(50.5 \%)$ |
| Bachelor's Degree in Education | $10(50.0 \%)$ | $10(50.0 \%)$ |
| Teaching Credential | $82(55.4 \%)$ | $66(44.6 \%)$ |
| Master's Degree in Education | $70(48.6 \%)$ | $74(51.4 \%)$ |
| Doctorate in Education | $3(50.0 \%)$ | $3(50.0 \%)$ |

Summary
There is no consensus evident from the data regarding Catholic secondary school teachers' grading practices. Teachers' employ a wide variety of grading practices in determining students' grades. The broad trends that emerged from the data indicate that teachers include many types of evidence in students' grades, including evidence of how students learn, what they learn, and how much growth they make over time. Teachers reported that academic achievement is the primary purpose for which they report grades. While the grades that Catholic high-school teachers reported for their students emphasized achievement, nearly half reported that they communicate grades to report
more than achievement alone. Data analysis revealed that teachers of different subject areas emphasized academic achievement variously. Teachers commonly included sources of evidence that are not indicative of achievement, even those teachers who claimed to grade solely to report academic achievement. In this regard, teachers' grading practices are frequently inconsistent with their expressed purposes. A majority of Catholic high schools did not have a statement of purpose for grading, and samples of schools that did publish a grading purpose revealed ambiguity about the purpose. Finally, an examination of the data revealed little variation in purpose and practice even among educators who had higher degrees in education or who had received additional training in the practice of grading.

## CHAPTER V

## CONCLUSIONS, IMPLICATION, \& RECOMMENDATIONS

## Summary of the Study

Perhaps no regular duty of high-school teachers is as complex or carries as many implications as the practice of grading students, both for the difficulty of communicating a student's work over an entire term into a single symbol and because grades play an enormous role in determining a high-school student's future. The function of grades is complicated because there is substantial confusion regarding the messages that grades are supposed to communicate.

Studies of how public-school teachers determine students' grades have revealed that many teachers use grades for multiple purposes, often simultaneously (Brookhart, 1991; Cross \& Frary, 1996; McMillan \& Workman, 1999). Teachers use grading to communicate academic achievement, to motivate students, to enforce student attendance, and to modify student behavior, resulting in what Brookhart (1991) described as a "hodgepodge grade of attitude, effort, and achievement" (p. 36). The multiple purposes that drive many teachers' grading practices reduce the reliability of their grades as communications of student learning. They also diminish the reliability of grades to guide teachers in addressing individual students' needs. In fact, Guskey (2007) reported that when asked to rank fifteen sources of evidence by their reliability for reporting what students know and are able to do, teachers and administrators ranked grades twelfth.

Since the advent of the Standards Movement in the 1980s, studies of teachers’ grading practices, focusing on public school teachers, have concluded that the mixing of
achievement with non-achievement factors in grading is a problem (Stiggins, et. al., 1989; Polloway, et. al., 1994). Other studies have shown that teachers lack expertise in the use of valid procedures for grading and communicating about student achievement (Boothroyd, et. al., 1992; Brookhart, 1998). Researchers have called repeatedly for additional training in grading and assessment as a way to address this problem (Brookhart, 2001; Stiggins, 2002; Stiggins, et. al, 1989; Frisbie, 2005).

Guskey (1996) proposed three guidelines to ensure that grading is fair and useful to students, parents, and educators: develop a clear statement of purpose addressing why grading is done, for whom the information is intended, and what the desired results are; provide accurate descriptions of what students know and can do that receivers of information can understand; use grading and reporting methods to enhance, not hinder, teaching and learning.

While the grading practices and purposes of public-school teachers have been studied, the grading policies and practices employed by Catholic high-school teachers have been unknown. Uncovering the practices and policies that Catholic high-school teachers commonly employ in determining their students' grades fills an important gap in the knowledge base about Catholic secondary education. Catholic schools have a professed commitment to "adapt their work to the needs of the contemporary world" (Congregation for Catholic Education, 1977, p. 15), and while the research of publicschool teachers' practices and habits can inform all teachers to some degree, there is scant, if any, research that speaks to Catholic high-school educators specifically. This makes this study especially important, since Catholic high-school teachers persist in exhibiting practices that earlier studies have called into question.

The purpose of this study was to identify the practices that Catholic high-school teachers employed in determining their students' grades, to investigate the extent to which academic achievement comprised the grades that teachers report, to determine the extent to which teachers' grading practices are consistent with their own expressed purposes, and to determine the extent to which teachers' grading practices are consistent with their school's purpose for grading. To accomplish this, two survey instruments were designed by the researcher-one for teachers and one for administrators. Teachers and administrators from Catholic high schools in the United States Conference of Catholic Bishops Region XI, comprising California, Nevada, and Hawai'i, participated in the study. A randomly selected sample of teachers completed a 63 -item online survey. Participation in the survey section was strong, as 486 teachers took part, and 411 completed it in its entirety Similarly, 50 administrators participated in answering the online survey designed for administrators, 43 of whom completed all 31 items.

In addition to the surveys, a thematic analysis of 52 Catholic high schools' grading policy documents was undertaken to determine how many schools had articulated its purpose for grading, what the purposes were, and if the schools had established school-wide policies for teachers to follow in determining students' grades. The contents of policy documents on grading vary widely from school to school; nevertheless, the information available in the Parent/Student Handbooks and other available policy documents provided depth to the study. The data from these sources formed the basis for investigating the four research questions.

## Research Questions

1. What grading practices do Catholic secondary-school teachers currently employ in determining their students' grades?
2. To what extent does academic achievement comprise the grades Catholic highschool teachers report for their students?
3. To what extent are Catholic secondary-school teachers' grading practices consistent with their expressed purposes for grading?
4. To what extent are Catholic secondary-school teachers' grading practices consistent with their school's purpose for grading?

## Conclusions

## Research Question 1

The first research question of this study sought to discover the practices that Catholic high school teachers employed in determining students' grades, as no studies of the grading practices and purposes of Catholic secondary educators had been found. The study found that the grading practices of Catholic high-school teachers are similar to those of their public-school counterparts uncovered in previous studies (Brookhart, 1991; Cizek, 1995; Cross \& Frary, 1996; McMillan \& Workman, 1999b). They combine achievement and non-achievement grading evidence in determining students' grades, including effort, participation, and improvement as part of their deliberations; substantial minorities of teachers include attendance, work habits, neatness and behavior. The result is that, like public-school teachers, Catholic high-school teachers produce a "hodgepodge grade of attitude, effort, and achievement" (Brookhart, 1991, p. 36).

This study also found that a majority of teachers include the progress a student has made over time. The finding that process and progress criteria are included by sizeable numbers of Catholic high school teachers matches the conclusions of previous studies of public school teachers' grading practices over the past quarter century. Cross and Frary (1996) found that teachers believe it is important to combine non-achievement factors such as effort, ability, and conduct with student achievement to determine grades. Other studies found that many teachers use grades for multiple purposes-to communicate academic achievement, to motivate students, to enforce student attendance, and to modify student behavior (Anderson, 1997; Brookhart, 1991; Cizek, 1995; McMillan \& Workman, 1999). The result of including non-achievement criteria with achievement-based criteria is that multiple messages are mixed into a single letter symbol, and the meaning of the grade is diminished or wholly obscured.

The role of formative assessments by Catholic high-school teachers was also examined. Research into formative assessments by Black and William (1998) asserted that grades are overemphasized in schools and recommended that teachers use formative assessments to support student learning. The current study found that over two-thirds of teachers reported that their assessment programs included formative assessments. However, the study found that a large majority of teachers (78.3\%) used homework intended as practice-by definition, formative assessments-in determining students' final grades. Similarly, a slim majority (50.8\%\%) included assessments of notebooks or journals in students' grades. This contradiction suggests that majorities of teachers do not understand, or they sometimes disregard, what formative assessments are designed to do.

The current study revealed that a majority of Catholic high schools have taken steps to guide teachers' grading practices by establishing some grading policies, though such policy guidance is not always thorough. Two-thirds (65.6\%) of teachers reported that their schools had adopted subject-area standards; however, less than half (43.7\%) reported that they were required to assess students' achievement of those standards. Moreover, only one-third of teachers (33.5\%) reported that their school had established benchmarks for assessing students' achievement of each standard. In some cases, the study found that school administrations supported grading practices not recommended by grading specialists. Attendance, for example, is not a measure of academic achievement (Guskey \& Bailey, 2000), but $83.0 \%$ of administrators reported that their schools have minimum attendance requirements for students to pass each course. Substantial majorities of teachers reported that their schools did not have policies to guide teachers in determining students' grades. A 71.0\% majority of teachers reported that their schools do not identify grading categories for teachers to use in determining grades, while $60.4 \%$ reported that their schools do not identify the weights teachers may place on different elements or methods. The result is that Catholic high-school teachers have substantial latitude in determining students' grades and such latitude often results in muddled communications about student learning.

That latitude extends to the methods by which the evidence is interpreted and combined, some of which increase the probability of mismeasurement of student learning. A clear majority $(61.0 \%)$ of teachers reported that their school does not identify the methods teachers may use in determining grades. Three methods that measurement experts have identified as problematic are grading on the curve (Bloom, et. al., 1981;

Bracey, 1994), averaging scores to determine grades (Marzano 2000; O’Connor, 2007; Stiggins, 2001), and using zeros (Canady \& Hotchkiss, 1989; Reeves, 2004b). The study found that grading on a curve was employed by only one in ten (9.8\%) Catholic highschool teachers. Large majorities of teachers, however, reported that they use averaging when combining students' scores. Two-thirds (66.8\%) determined final grades by averaging scores on assessments. Depending on the circumstances and the data being combined, averaging might be an appropriate technique for combining data. However, curving and using zeros on a 100-point scale are not recommended in a standards-based environment by experts in educational measurement.

The prevalent use of zeros is particularly troublesome. On a typical grade scale, an $\mathrm{A}, \mathrm{B}, \mathrm{C}$, and D each has a ten-point range, while an F has a sixty-point range. This study found that $82.7 \%$ of Catholic high-school teachers use grading scales in which the range for an F is larger than the ranges for an $\mathrm{A}, \mathrm{B}, \mathrm{C}$, or D , and $90.9 \%$ of teachers record grades of zero for work that was not submitted or was found to have been plagiarized. Moreover, this practice is supported by the administrations of approximately half of the schools, as the thematic analysis of grading documents discovered that 25 of 52 schools include the use of zeros as policy. Stiggins (2001) and Reeves (2004b) argued that in such a grading scale zeros misrepresent student learning and are unacceptable under any circumstances. Canady and Hotchkiss (1989) concluded that zeros are typically assigned to punish students for not displaying appropriate effort or responsibility. This practice, employed by more than nine in ten Catholic high-school teachers, artificially depresses students' grades.

The current study's findings regarding the grading practices of Catholic highschool teachers are consistent with previous studies' findings (Brookhart, 1991; Cizek, 1995; Cross \& Frary, 1996; McMillan \& Workman, 1999b). Specifically, teachers in Catholic secondary schools mix various sources of evidence in determining their students' grades. Most do so with marginal policy guidance from their school administrations. In fact, the analysis of school grading documents revealed that only 20 of 52 schools published grading policies for their teachers, with the level of detail varying substantially. Nine other schools expressed that they leave the development of grading policies up to individual teachers, and five others delegate the development of grading policies to academic departments. Eighteen schools published no grading policies in their Parent Student Handbooks or on their school websites.

Teachers have wide latitude in deciding what methods they may use in combining and weighting the evidence they include in the practice of deciding grades. The current practices operative in Catholic schools are at variance with the framework for grading offered by Guskey (1996), who separated the most common learning criteria used for grading and reporting into what he termed product (what students know and are able to do), process (how students achieved results), and progress (how much growth students make). Concurring with researchers like Brookhart (2009), Marzano (2000), O’Connor (2002), and Stiggins (2001), Guskey recommended that "grading and reporting should always be done in reference to learning criteria" (1996, pp. 17-18).

There are other considerations regarding the negative effects of hodgepodge grading practices on students. Covington (1992) argued that student motivation and selfefficacy in the classroom is fostered when grades are accurate reflections of successful
learning. The current study's results, considered in light of these previous studies, suggests that students who struggle in school are most affected by such practices as using zeros in conventional 100-point grading scales, and most Catholic high-school teachers employ that practice.

## Research Question 2

The second research question sought to discover the extent to which academic achievement comprises the grades Catholic high-school teachers report for their students. The current study discovered that while Catholic high-school teachers believe that the primary purpose for reporting grades is to communicate academic achievement, approximately half (50.2\%) reported that they grade students solely on their academic achievement. In other words, half mix achievement and non-achievement factors in determining grades. Educators may consider behavioral habits and attitudes important to achieving academic success, but they are not evidence of achievement. This finding indicates that grading practices of most teachers in Catholic high schools do not align with the conceptual framework for grading developed by Guskey (1996) and supported by Marzano (2000), Stiggins (2001), O’Connor (2002), and Brookhart (2009), which asserted that grades should be based on specific learning criteria, and non-achievement factors, such as effort and behavior, should be reported separately from academic achievement.

This study's findings supported those of earlier studies (Cizek, et. al., 1996; Stiggins, et. al., 1989). In exploring why teachers include product-, process-, and progress-oriented evidence in their grading determinations, Cizek (1995) concluded that
there is a "success-bias," in which many teachers want their students to be successful, and they appear "to structure their assessment practices and combine formal and informal assessment information in ways that were most likely to result in a higher grade for their students" (p. 22). That desire, however, does not alter the fact that Catholic high-school teachers' grades are communicating multiple messages, and mixing messages into a single symbol cannot result in an accurate communication of a student's level of achievement or any other aspect of learning. As a method of communication, the meanings of grades encumbered with multiple messages cannot be gleaned with any confidence.

## Research Question 3

The third research question explored the extent to which Catholic high-school teachers' grading practices were consistent with the teachers' own expressed purposes for grading. The findings of the current study indicate that while most teachers (73.5\%) believed that reporting academic achievement is the most important purpose for grading students, half of those same respondents (49.8\%) reported that they do not grade solely to communicate academic achievement. This presents a perplexing problem. Some teachers are apparently conscious that their program for determining grades is a conglomeration of different types of evidence, resulting in a letter grade that carries multiple messages. In a curious sense, these teachers' practices are not inconsistent with their purpose, if their purpose is to mix multiple messages into one letter symbol. However, given the improbability of accurately interpreting a single letter grade tasked with carrying more than one message, the precise meaning of these teachers' grades is
not possible for receivers of the grades to discern. What appears plausible is that substantial numbers of teachers do not fully appreciate that different sources of evidence serve specific purposes. It is possible that large numbers of Catholic high-school teachers are unclear about the purpose for which they report grades and are unclear about the principles of grading as set forth by grading and educational measurement specialists.

A more problematic finding was that high percentages of the other half of respondents, Catholic secondary school teachers who claimed they grade solely for achievement, contradicted their own achievement-only assertions. The study found that $81.4 \%$ of these teachers include homework assignments intended as practice in their grading determinations, $45.6 \%$ included students' notebooks or journals, $40.0 \%$ included improvement, $39.1 \%$ included effort, $23.7 \%$ included work habits, $23.3 \%$ included neatness, $14.0 \%$ included student attendance, and $13.0 \%$ included student behavior in their grade determinations. There is clear contradiction between these teachers' practices and their stated purpose.

It is uncertain whether these teachers are aware of the inconsistency, and it underscores the question of whether these teachers understand principles of grading as proposed in earlier studies. Moreover, such inconsistency raises questions regarding the accuracy and validity of the grades that large numbers of Catholic high school teachers report for their students. Academically struggling students are especially vulnerable to the effects of grading systems that do not focus solely on academic achievement. For all students, but especially for those who struggle in school, the consequences of muddled grading practices must be scrutinized for the damage they do to students. McMillan (2009) argued that the best thing a teacher can do is to make sure that grades convey
meaningful, accurate information about student achievement. Students' self-efficacy is strengthened with standards-based grading because of the link established between what students have done and how their performances relate to standards. This encourages an explanation for success that is internal and controllable. He added that self-efficacy is strengthened when separate grades are given for process-oriented criteria like conduct, participation, and effort.

## Research Question 4

The fourth research question explored the extent to which teachers' grading practices were consistent with their schools' purpose for grading. This area of inquiry was embarked upon to determine the degree of institutional control that Catholic high schools provide their teachers in the practice of reporting student learning.

The surveys indicated that standards have been established in a majority of Catholic high schools. Nearly two-thirds (65.6\%) of teachers reported that they work in schools where standards have been established in each subject area, slightly more than the percentage of administrators who did so (59.6\%). The study also discovered that onethird of schools (33.5\%) provide performance benchmarks to assist teachers in assessing student achievement of each standard. However, only 43.7\% of all teachers reported that they are actually required to assess students' achievement of those standards. The majority of teachers either are not provided standards, or the standards they are provided should be more accurately described as "suggested guidelines." In Catholic high schools, then, while many schools have elements in place to guide teachers in the process of grading, the majority of teachers depend on their own judgment both for determining
their learning outcomes and for assessing what level of performance students achieve against those outcomes. Such a situation can only lead to greater variation in the grading of students.

Catholic high-school administrators are charged with developing and implementing school policies, including those around grading. The current study found that a noticeably higher percentage of administrators (91.8\%) than teachers (73.5\%) believe that communicating achievement is the primary purpose for reporting grades, suggesting that a gap in understanding exists in many schools between those who develop and enforce school policies and some who determine students' grades. The gap in understanding may not be the only challenge. Cicmanec, Mauck, Johansen, and Howley (2001) reported that the methods used by teachers to assign grades tended to be inconsistent regardless of the presence of school district grading policies. This suggests that policy-development alone is insufficient to change practice. Oversight and training must undergird policy.

Of greater concern, in terms of policy, is the absence of a guiding statement of purpose for grading in a majority of Catholic high schools. Guskey (1996) and O'Connor (2002) recommended that each school develop a clear statement of purpose addressing why grading is done. The current study found that fewer than half of administrators (47.9\%) reported that their own school publishes an official purpose for grading. A lower percentage of teachers, $40.4 \%$, reported that their school has an official statement of purpose. The current study's thematic analysis of 52 published school policies revealed that $28.8 \%$ have articulated a purpose for grading in their policy guidebooks.

The fact that nearly half of Catholic high schools have developed a statement of purpose for grading is a sign of progress. The standards era has influenced many Catholic high schools to adopt course outcomes, for outcomes frame teachers' key academic decisions, including those around grading. The standards era began a quarter of a century ago, however. The persistent absence of grading policies in so many Catholic high schools forces, or allows, teachers to determine for themselves the purpose for which they grade. For teachers in schools with no statement of purpose for grading, there is no basis for school-wide alignment between teachers' practices and a school's purpose. In the absence of policy guidance, teachers' grading practices and purposes can and do vary substantially.

## Ancillary Findings

The two ancillary findings of this study are noteworthy. The first finding addresses teacher training. This study discovered that the level of formal training in education that Catholic high school teachers' have received in the course of their professional preparation does not change teachers' grading purposes or practices. Regardless of the amount of formal educational training, teachers report very similar grading practices and beliefs. Importantly, the majority of teachers (65.5\%) and administrators $(65.1 \%)$ who participated in this study reported that they had not received training in grading or educational measurement. Brookhart (2001) found that, indeed, teachers lack expertise in test construction and are not trained in the use of valid grading procedures. Cizek (1995) attributed some variation in grading to the fact that teachers and administrators often entered teaching without systematic training in assessment.

However, the current study found that even teachers who reported that they had taken courses in grading or had been trained in grading by their schools did not grade differently than teachers who had not been trained in grading. Quilter and Gallini (2000) surmised that professional training in educational measurement might play a negligible role in affecting teachers' attitudes toward assessment when compared with teachers' personal experiences. Daily classroom realities may work against the adoption of research-recommended grading practices. Nevertheless, the current study raises the question of whether formal educational training has effectively imparted the principles set forth by experts in educational measurement. It also raises the question of whether current training, particularly in regard to grading, is effective in altering teachers' beliefs and practices.

The second ancillary finding was not identified in previous studies. Specifically, this study discovered that there was substantial variation in how teachers grade depending on the subject area they teach. When asked if their system for determining grades was based solely on academic achievement, positive responses ranged from a high of $65.2 \%$ (Mathematics) to a low of $21.2 \%$ (Visual and Performing Arts). Looking specifically at one clearly process-oriented source of evidence, student effort, in grading determinations, Mathematics teachers were the only group in which a minority of respondents (40.6\%) claimed to include effort in their grading, while $92.8 \%$ of Visual and Performing Arts teachers claimed to include effort. Beyond recognizing the stark difference between these two groups, this variation suggests that a teacher's subject area-the subjectspecific sub-culture of each academic department - may have greater influence on
grading purposes and practices than professional training. Not identified by previous studies, this discovery is highly suggestive of the need for further examination.

One other important implication emerged from the current study, and it pertains to the role of administrators in shaping school grading policies and guiding teachers' practices. Teachers' grading practices vary substantially, both in the evidence they choose to use and in the methods by which that evidence is combined. In addition, large numbers-in many cases, majorities-of teachers employ practices that run contrary to what educational measurement experts recommend in reporting student learning, resulting in grades whose messages are difficult, if not impossible, for receivers to decipher. Even school administrators who oversee the teachers cannot do more than guess what each letter grade's message is. That said, the wide latitude that Catholic secondary teachers possess in deciding how they determine students' grades is allowed by the administrators in charge of the schools. Catholic high-school administrators are responsible for the development and enforcement of school policies, and the current state of affairs is at least partly due to the fact that many school administrators do not provide their teachers with parameters by which teachers should determine students' grades. Perhaps no other group possesses the leverage to initiate necessary reforms in the purposes, polices, and practices that guide the determination of students' grades. This is another area that has not been fully explored. For this reason, a closer examination of the extent to which administrators influence and guide Catholic high-school teachers' grading policies is warranted.

## Limitations

There were several limitations to this study. The researcher selected a random sampling of Catholic high schools in three western states (California, Nevada, Hawai’i). The study's findings cannot be extrapolated to all Catholic high schools in the United States or to public or other private American high schools. In addition, this sampling of Catholic secondary schools in three western states is not representative of the geographical and cultural diversity of Catholic secondary schools in the United States. The topic of this study, the nature of grading and reporting in Catholic secondary schools, and the challenges inherent in it could be considered a delimitation since these findings will apply only to Catholic high schools in California, Nevada, and Hawai'i.

The study depended on administrators and teachers at each school site to complete the respective survey tools voluntarily. The number of responses to the two surveys was very high and added strength to the data they provided. A total of $84.6 \%$ of the 486 teachers who participated in the Teacher Survey completed all 63 items; similarly, 85.0\% of the 50 administrators completed all 31 items on the Administrator Survey. Still, teachers' willingness to participate and complete the survey might have had a pertinent influence on the response rate. Additionally, the length of the surveys, especially the Teacher Survey, might have had an effect on the response rate.

The opinions of these teachers and administrators about the practice of grading cannot be considered an objective measure of grading practices. The practice of grading might be influenced by numerous factors, some personal, which a survey can uncover only partially. In some cases, participants may not have been familiar with school policies and practices around grading. Teachers and administrators might have sought to
portray their personal beliefs and methods of grading more positively or negatively than an objective observer. Some survey items might have threatened respondents who concluded that their practices did not align with perceived best practices. The fact that respondents were volunteers may be a limitation to the study. The study may have been limited by the confidence that respondents had in the confidentiality of the results. If respondents were not confident of the security of the information they provide, their answers may not be fully valid.

The search for schools' published grading policies was limited by the availability of such documents via schools' websites. Not every high school in the study area posted policy documents on their websites, nor are schools required to post their grading purposes, policies, and practices. The results of the thematic analysis, though representative, cannot be considered comprehensive.

## Implications and Recommendations

## Research Implications and Recommendations

Though a number of previous studies have explored the grading practices employed by teachers, all of these explored teachers in public education. This study identified the grading practices of Catholic secondary school teachers and the purposes for which Catholic high-school teachers report students' grades. In embarking on this study, this researcher sought to contribute to the body of knowledge about grading in Catholic secondary schools and to discern the study's implications particularly for Catholic secondary schools, which may be extended to public and other private schools.

Five implications for further study can be drawn from the findings of this study. First, this study has discovered that the practices Catholic high-school teachers employ and the purposes for which they report students' grades; from this discovery, it is reasonable to wonder if Catholic secondary school teachers and administrators understand that there are different types of learning evidence, and each type of evidence serves a discrete purpose. Specifically, exploring the extent to which educators are aware of the differences between achievement and non-achievement evidence may illuminate what steps need to be taken to address confusion among teachers and administrators.

Second, this study discovered that many teachers commonly interpret and combine assessment information in ways that educational-measurement experts claim make grades invalid and unreliable; however, it did not explore deeply the extent of the mismeasurement. Further research into exactly how teachers compute, weigh, and blend assessment information may provide teachers and administrators with direction and guidance in eliminating mismeasurement.

Third, the current study revealed that there are substantial differences in how teachers grade depending on the subject area in which they teach. That a teacher's subject matter might substantially influence his or her approach to grading is worthy of more critical examination. It suggests that teachers' beliefs are influenced by subtle factors, and an examination of this particular factor is warranted.

Fourth, an examination of teachers' pedagogical and classroom-management beliefs in general is also worthy of exploration. Discovering teachers' personal beliefs about educational measurement, development of students' habits of scholarship, student motivation, and their perceptions of classroom realities might explain more fully the
prevalence and persistence of certain grading habits. Qualitative research may provide insights into the attitudes that are at the root of teachers' beliefs about grading.

Finally, the persistence of grading practices that result in confusing communications cannot be simply attributed to teachers' ignorance. Certainly, convention and prior practice explain the longstanding use of some grading practices. The practical pressures of the classroom and the changed expectations of teachers influence teachers, and those influences deserve closer study. Cross and Frary (1996) argued that the many pressures teachers face from students, administrators, and parents may render measurement training useless unless it can provide a way to make teachers' jobs more manageable. Further inquiries into this area may identify obstacles to change that are rooted in school culture and the realities of teaching.

## Educational Implications and Recommendations

Grading is a difficult task, and its difficulty is heightened in the standards era because the alignment between grades and test scores has been more closely scrutinized. In addition, the easy availability of information in the digital age has opened a majority of teachers' grade books to students, parents, and administrators. What was once viewed only by appointment or in a parent-teacher conference can now be seen whenever students, parents, and school officials choose to view students' grades. This increased transparency requires teachers not only to be explicit about how they determine students' grades, it also heightens expectations of parents and administrators to expect that those practices result in clear, accurate communications. To do this effectively, teachers and
administrators must be clear and accurate about what they are communicating. This study indicated that, among Catholic high schools, neither is the case at present.

The first step in accomplishing this is to provide sustained, effective training of teachers and administrators in principles of grading rooted in research. These principles, though well established in research literature, apparently are not known or are not embraced by substantial numbers of Catholic high-school teachers. Phelps (2003) found that Catholic high-school teachers receive less professional development training than their public-school counterparts. This study found that $73 \%$ of teachers have received no training from their schools in the practice of grading. Ongoing professional development in assessment and grading of all Catholic high-school educators is strongly recommended.

Effective training in grading must include an examination of the factors that lead teachers to employ the practices they do. For some teachers, grades provide leverage to influence student behavior and attitudes. Brookhart (1994) surmised that classroom realities hinder grading reform and that current recommendations for grading do not take into account the teacher's need to manage classrooms and motivate students. It is essential, then, that training in grading acknowledges and, optimally, addresses the classroom realities that lead teachers to use grades as leverage.

While teachers are responsible for assessing and reporting the academic performance of their students, it is administrators who are charged with developing school grading policies consistent with the research literature and with supporting teachers in employing appropriate grading practices. This study discovered that nearly two-thirds (65.1\%) of Catholic high-school administrators had taken no courses in
grading in their formal educational training. Ignorance among Catholic schools’ leadership likely contributes to the continued application of grading practices that are invalid or unreliable. Termini (2007) argued that serving the diverse needs of students who are already in Catholic schools requires Catholic school teachers' willingness to learn "and a commitment from school administrators to train teachers to utilize strategies that meet the needs of diverse learners" (p. 8). While the results of this study clearly indicate the need for a focused program of teacher training in the principles of assessment and educational measurement, the training is at least as urgent for the administrators.

Ongoing professional training must be accompanied by pre-service training of aspiring teachers. Fewer than one-third of teachers (34.5\%) and administrators (34.1\%) reported that their formal educational training included any courses in grading. Schools of education must include formal training in grading and educational measurement for aspiring teachers.

Professional development and training must be followed by the formal adoption of school-wide purpose \& policies consistent with the recommendations of grading and educational measurement experts. The framework presented by Guskey calls for the schools first to develop its purpose for grading, then to make that purpose clear for all interested constituencies. That purpose forms the basis of the school's grading policies and practices. Grading cannot be consistent if teachers are left to develop their own purposes and policies. The thematic analysis of available school grading policies revealed that only 20 of 52 schools published school-wide grading policies-which varied substantially in detail—and of those only 15 published a purpose for grading.

Grading reform is essential. Accurate communication of student learning is necessary for informed judgments, and the need for grades to communicate achievement accurately is especially true for students who struggle most in school. Black and William (1998) noted that academically struggling students do not consider grades to be communications to guide their learning; rather, they perceive them to be judgments of their inadequacies. Covington's (1992) "self-worth theory" of motivation posited, "The search for self-acceptance is the highest human priority, and that in schools selfacceptance comes to depend on one's ability to achieve competitively" (p. 74). As part of his guidelines for fostering motivational equality in the classroom, he argued that a grade should be an indicator of successful learning, not just participation. He asserted that students who harbor doubts about their ability are likely to withdraw from learning.

Other researchers have drawn similar conclusions about the effects of low grades on struggling students. Roderick and Camburn (1998) reported that few students recover from grade failure, especially males and Hispanic students, and early failure often translates into poorer performance later. Bracey $(1994,1998)$ posited that at-risk students may drop out to avoid the negative effects of failure and low grades; thus, an unintentional consequence of some grading practices may be to drive students most in need of education away from schools. "We spend a great deal of time discussing individual differences in motivation, treating motivation as a trait," wrote Ames (1990), "but not enough time attending to how the organization and structure of the classroom shapes and socializes adaptive and maladaptive motivation patterns" (p. 418). Flawed and unclear grading practices work against all students, most of all those who are disadvantaged by poverty, cultural differences, or learning disabilities. For all educators,
but particularly for teachers in Catholic schools committed to social justice and educating the disadvantaged, the need for grading reform is urgent.

Changing deeply rooted practices will not be easily accomplished. Adopting a school-wide purpose and policies may meet resistance from some teachers comfortable with habit and from some students and parents who are accustomed to established ways of grading (Cross and Frary, 1996). The persistence of practices that specialists in grading and educational measurement have long decried indicates how firmly entrenched certain beliefs are among teachers and administrators. Initiating and sustaining change will not be easy. The recommendations of this study will challenge core conventions of schooling. Disagreement and anger are unavoidable. Nevertheless, students' educational needs, rooted in research-based practice, must take primacy. Educational malpractice, no matter how comfortable teachers and administrators are with it, must be eliminated.

## Final Remarks

Grades can be powerful tools in guiding high-school students to higher academic achievement. However, substantial confusion exists regarding the meaning of grades and their efficacy in communicating levels of student achievement. Teachers use grades for multiple purposes, and a mishmash of learning evidence combined in a single letter grade diminishes the reliability of grades as communications of student learning and as data to guide adjustments in instruction that can address individual students' learning needs.

This study shed light on the grading practices, policies, and purposes of Catholic high-school teachers, about which little was known previously. Its findings showed that many Catholic high-school teachers mix non-achievement factors, such as effort, ability,
and behavior, with academic achievement into a single symbol, obscuring the grade's meaning, misleading students, and diminishing the ability of teachers, schools, and parents to meet students' educational needs.

Despite these clear challenges, there are reasons for optimism. This study revealed that most Catholic high-school teachers believe academic achievement is the primary purpose for reporting grades. Moreover, a majority of schools in this study have developed standards to guide instruction, assessment, and grading. These provide hope that Catholic schools are moving closer to grading and reporting systems that accurately communicate student achievement. Nevertheless, progress is incremental. The current reality is that Catholic high-school teachers are provided wide latitude in how they determine their students' grades, which results in a lack of consistency in their grading policies and practices. Professional development offers the strongest remedy to hasten improvements in grading. However, training in educational measurement must be focused and sustained in order to overcome longstanding, entrenched habits.

Unlike many public schools, Catholic schools possess the flexibility to change relatively quickly. The benefits of implementing sound grading policies and practices can be realized far more quickly than in school encumbered by large bureaucracies. Flexibility empowers Catholic schools to address more effectively the needs of all students. All teachers wish to help their students; for Catholic high-school teachers, this intent is rooted in Catholic schools' historic mission of meeting the individual needs of its students, especially those struggling and disadvantaged in our communities. The ability of Catholic high schools to serve this mission depends substantially on teachers accurately communicating about student achievement.

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## APPENDIX A

TEACHER SURVEY ON GRADING

2. On the official GRADE REPORTS your school sends home, how is each student's grade reported for each course?

## Answer Options

| Response | Response |
| :---: | :---: |
| Percent | Count |

a letter grade (A, B, C, D, or F) corresponding to a set of written descriptors for overall performance in a subject.
a percentage grade based on a numerical scale with accompanying descriptors.
24.6\%

114
a grade corresponding to a standardized performance rubric.
3.2\%

15
A separate grade for each element of learning within each course (eg., written expression, content knowledge, problem-solving).

Teachers write an individualized narrative describing the student's learning.
5.4\%

25
Teachers select comments from a standardized list of comments describing the student's performance.
$32.8 \% 152$
3. Does your school require teachers to include comments to supplement the grade?
(If you answer NO, you will be directed immediately to question \#5.)

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $47.4 \%$ | 220 |
| Yes | $52.6 \%$ | 244 |
|  | answered question | 464 |
|  | skipped question | $\mathbf{2 2}$ |

4. How do you decide comments for each student?

## Answer Options

Response
Percent

Response

Teachers select comments from a predetermined bank
47.9\% 116 of comments.
Teachers compose their own comments.
$3.7 \%$
9

Teachers can both select comments from a bank of
48.3\% 117 comments or compose their own for each student.

| answered question | 242 |
| :---: | :--- |
| skipped question | 244 |

5. In general, how frequently does your school officially communicate student achievement via grade reports to its students and parents?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| Every month | $5.2 \%$ | 24 |
| Every six weeks | $22.3 \%$ | 103 |
| Every nine weeks | $6.3 \%$ | 29 |
| Every twelve weeks | $1.1 \%$ | 5 |
| Current grades are available online at any time | $65.1 \%$ | 300 |
| Other (please specify) |  | 55 |
|  | answered question | $\mathbf{4 6 1}$ |
|  | skipped question | $\mathbf{2 5}$ |

6. Does your school require teachers to use the same computerized grade book? (If you answer NO, you will be directed immediately to question \#9.)

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $6.5 \%$ | 30 |
| Yes | $93.5 \%$ | 431 |
|  | answered question | $\mathbf{4 6 1}$ |
|  | skipped question | $\mathbf{2 5}$ |

7. Please identify the computer grade-book you use at your school.

| Answer Options |  | Response Count |  |
| :---: | :---: | :---: | :---: |
|  |  | 410 |  |
|  | answered question |  | 410 |
|  | skipped question |  | 76 |

8. Does your school's computerized grade book allow a student and parents to see the student's grades at any time online?

| Answer Options | Response <br> Percent | Response <br> Count |  |
| :--- | :---: | :---: | :---: |
| No | $3.9 \%$ | 17 |  |
| Yes | $96.1 \%$ | 414 |  |
|  | answered question | 431 |  |
|  | skipped question | 55 |  |

9. On your school's TRANSCRIPTS, how is each student's learning reported for each course?

## Answer Options

Response Response
a letter grade (A, B, C, D, F) corresponding to a set of written descriptors for each grade.

Percent Count
89.1\% 407
a grade based on a numerical scale with accompanying descriptors.
6.8\% 31
a grade corresponding to a standardized performance rubric.
a separate grade for separate elements of learning within each course (eg, written expression, content knowledge, problem-solving).
narratives written by the course's teacher for each student.
0.0\%

0
comments selected from a standardized list of comments describing the student's performance.
1.8\%

8
10. Does your school have an official statement of purpose for grading? (If you answer NO, you will be directed immediately to question \#12.)

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $59.6 \%$ | 270 |
| Yes | $40.4 \%$ | 183 |
|  | answered question | 453 |
|  | skipped question | 33 |

11. Does your school's statement of purpose identify communicating ACADEMIC ACHIEVEMENT as the primary purpose for why grades are reported?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $13.8 \%$ | 24 |
| Yes | $86.2 \%$ | 150 |

skipped question 312
12. Does your school have school-wide content and skills standards in each subject area? (If you answer NO, you will be directed immediately to \#15.)

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $34.4 \%$ | 155 |
| Yes | $65.6 \%$ | 296 |
|  | answered question | 451 |
|  | skipped question | 35 |

13. Does your school require you to assess and grade students' achievement of those standards?

| Answer Options | Response <br> Percent | Response <br> Count |  |
| :--- | :--- | :---: | ---: |
| No | $33.2 \%$ | 98 |  |
| Yes | $66.8 \%$ | 197 |  |
|  | answered question | 295 |  |
|  | skipped question | 191 |  |

14. Has your school established benchmarks (eg., rubrics) for assessing students' achievement of each learning standard?

Answer Options
No
Response Percent

Response Percent Count
49.2\% 146
$50.8 \% \quad 151$
answered question
15. Does your school identify what CATEGORIES you may or may not consider in determining a student's final grade?

Answer Options

| Response | Response |
| :---: | :---: |
| Percent | Count |

No 71.0\% ount

Yes 29.0\% 316
answered question
skipped question 41
16. Does your school identify what WEIGHTS you may place on different elements in determining a student's final grade?

Answer Options

| Response <br> Percent | Response <br> Count |
| :---: | :---: |
| $60.4 \%$ | 269 |
| $39.6 \%$ | 176 |

answered question 445
skipped question
17. Does your school identify the METHODS you may use to determine a student's final grade (i.e., averaging marks over a term, standard weighting of various elements)?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $66.3 \%$ | 295 |
| Yes | $33.7 \%$ | 150 |
|  | answered question | 445 |
|  | skipped question | 41 |

18. Does your school have a school-wide grading scale with standardized gradeequivalent cut-offs (eg, 90-100=A, 80-89=B, 70-79=C. 60-69=D, 50-59=F)? If you answer NO, you will be directed immediately to \#20.

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $16.0 \%$ | 71 |
| Yes | $84.0 \%$ | 374 |
|  | answered question | 445 |
|  | skipped question | 41 |

19. Is the range for the grade that indicates failure (eg., F) larger than the range for other grades?

Answer Options
Response
Response
Percent Count
17.3\%

64
No
82.7 \%

306
answered question
skipped question 116
20. In courses that have multiple sections taught by multiple teachers, are uniform assessments (eg, examinations, compositions, performances, portfolios, reports) administered as part of the regular assessment program?
Answer Options
Response
Response
No Percent Count
50.8\%

223
Yes
49.2\%

216
answered question
skipped question
21. Does your school have minimum attendance requirements students must meet in order to pass each course?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $23.0 \%$ | 101 |
| Yes | $77.0 \%$ | 338 |
|  | answered question | 439 |
|  | skipped question | 47 |

22. Are the categories you evaluate in determining students' final grades the same as those of your colleagues who teach the same course?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $38.6 \%$ | 165 |
| Yes | $61.4 \%$ | 263 |
|  | answered question | 428 |
|  | skipped question | $\mathbf{5 8}$ |

23. Is your system of determining students' final grades based solely on their academic achievement?

Answer Options
Response Response
No
Percent
Count

No
49.8\% 213

Yes
50.2\%

215
answered question 428
skipped question 58
24. Do you determine students' final grade primarily by using the average (i.e., the mean) of their scores on tests and other assessments?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $33.2 \%$ | 142 |
| Yes | $66.8 \%$ | 286 |
|  | answered question | 428 |
|  | skipped question | 58 |

25. Do you determine students' final grades primarily by using other measures of central tendency (median, mode) when evaluating their scores on tests and other assessments?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $88.3 \%$ | 378 |
| Yes | $11.7 \%$ | 50 |
|  | answered question | $\mathbf{4 2 8}$ |
|  | skipped question | 58 |

26. Do you determine students' final grades by evaluating the student's overall performance against a benchmarked set of performance descriptors?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $59.6 \%$ | 255 |
| Yes | $40.4 \%$ | 173 |
|  | answered question | 428 |
|  | skipped question | 58 |

27. Do you determine students' final grades by grading on a curve?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $90.2 \%$ | 386 |
| Yes | $9.8 \%$ | 42 |
|  | answered question | 428 |
|  | skipped question | 58 |

28. Do you primarily score students' work using a 100-point (or percentage) grading scale?

Answer Options
Response Response
No Percent Count
19.4\%

83
Yes
80.6\%

345
answered question
skipped question 58
29. Do you primarily score students' work using a rubric scale (eg, 4-3-2-1-0 or A-B-C-D-F)?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $54.2 \%$ | 232 |
| Yes | $45.8 \%$ | 196 |
|  | answered question | 428 |
|  | skipped question | 58 |

30. In your grading scale, is the range for the grade of $F$ larger than the ranges for $A, B$, $C$, and $D$ ?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $17.3 \%$ | 74 |
| Yes | $82.7 \%$ | 354 |
|  | answered question | 428 |
|  | skipped question | 58 |

31. Do you record grades of zero on a 100-point scale (eg, for work that is not submitted or found to have been plagiarized)?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $9.1 \%$ | 39 |
| Yes | $90.9 \%$ | 389 |
|  | answered question | $\mathbf{4 2 8}$ |
|  | skipped question | 58 |

32. Does your assessment program include formative assessments (i.e., work designed to guide student learning and not included as part of a student's final grade)?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $32.9 \%$ | 141 |
| Yes | $67.1 \%$ | 287 |
|  | answered question | 428 |
|  | skipped question | 58 |

33. For homework assignments intended as practice, do you include those homework scores in a student's final grade? (If you answer NO you will be directed immediately to \#36.)

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $21.7 \%$ | 93 |
| Yes | $78.3 \%$ | 335 |
|  | answered question | $\mathbf{4 2 8}$ |
|  | skipped question | 58 |

34. Do you score practice-oriented homework for its accuracy and correctness?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $48.9 \%$ | 163 |
| Yes | $51.1 \%$ | 170 |
|  | answered question | 333 |
|  | skipped question | 153 |

35. Do you score practice-oriented homework for completion?

| Answer Options | Response <br> Percent | Response <br> Count |  |
| :--- | :---: | :---: | :---: |
| No | $6.3 \%$ | 21 |  |
| Yes | $93.7 \%$ | 312 |  |
|  | answered question | 333 |  |
|  | skipped question | 153 |  |

36. Do you assess notebooks or journals in determining students' grades? (If you answer NO you will be directed immediately to \#39.)

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $49.2 \%$ | 210 |
| Yes | $50.8 \%$ | 217 |
|  | answered question | 427 |
|  | skipped question | 59 |

37. Do you grade students' notebooks or journals for accuracy and quality?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $34.7 \%$ | 74 |
| Yes | $65.3 \%$ | 139 |
|  | answered question | $\mathbf{2 1 3}$ |
|  | skipped question | $\mathbf{2 7 3}$ |

38. Do you grade students; notebooks or journals for completion?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $3.7 \%$ | 8 |
| Yes | $96.3 \%$ | 206 |
|  | answered question | $\mathbf{2 1 4}$ |
|  | skipped question | $\mathbf{2 7 2}$ |

39. Do you include EFFORT as a criterion in determining your students' grades?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $42.7 \%$ | 181 |
| Yes | $57.3 \%$ | 243 |

answered question 424
skipped question 62
40. Do you include CLASS ATTENDANCE as a criterion in determining your students' grade?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $77.8 \%$ | 330 |
| Yes | $22.2 \%$ | 94 |
|  | answered question | 424 |
|  | skipped question | $\mathbf{6 2}$ |

41. Do you include WORK HABITS as a criterion in determining your students' grade?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| NO | $60.1 \%$ | 255 |
| YES | $39.9 \%$ | 169 |
|  | answered question | $\mathbf{4 2 4}$ |
|  | skipped question | $\mathbf{6 2}$ |

42. Do you include NEATNESS as a criterion in determining your students' grade?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $68.9 \%$ | 292 |
| Yes | $31.1 \%$ | 132 |
|  | answered question | 424 |
|  | skipped question | $\mathbf{6 2}$ |

43. Do you include BEHAVIOR as a criterion in determining your students' grade?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $70.3 \%$ | 298 |
| Yes | $29.7 \%$ | 126 |
|  | answered question | $\mathbf{4 2 4}$ |
|  | skipped question | $\mathbf{6 2}$ |

44. Do you include CLASS PARTICIPATION as a criterion in determining your students' grade? (If you answer NO you will be directed immediately to \#46.)

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $28.8 \%$ | 122 |
| Yes | $71.2 \%$ | 302 |
|  | answered question | $\mathbf{4 2 4}$ |
|  | skipped question | $\mathbf{6 2}$ |

45. Do you define CLASS PARTICIPATION solely as evidence of a student's achievement of course learning outcomes?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $89.7 \%$ | 270 |
| Yes | $10.3 \%$ | 31 |
|  | answered question | $\mathbf{3 0 1}$ |
|  | skipped question | $\mathbf{1 8 5}$ |

46. In determining your grades, do you include as a factor the IMPROVEMENT a student has made since the start of a term?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $44.7 \%$ | 189 |
| Yes | $55.3 \%$ | 234 |
|  | answered question | 423 |
|  | skipped question | 63 |

47. In determining your grades, are OBSERVATIONS you make of a student during class activities included in a student's grade? (If you answer NO you will be directed immediately to \#49.)

Answer Options
Response Response

No
Percent Count

Yes
51.3\% 217
48.7\% 206
answered question 423
skipped question 63
48. Do you explicitly define OBSERVATIONS to be evidence solely of a student's achievement of course outcomes?

Answer Options

| Response <br> Percent | Response <br> Count |
| :--- | :---: |
| $84.9 \%$ | 174 |
| $15.1 \%$ | 31 |

answered question
skipped question
49. Do you accept assignments submitted by students after the posted due date? (If you answer NO you will be directed immediately to \#51.

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $15.6 \%$ | 66 |
| Yes | $84.4 \%$ | 357 |
|  | answered question | 423 |
|  | skipped question | 63 |

50. Do you reduce the grades of assignments that have been submitted after their due date?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $9.8 \%$ | 35 |
| Yes | $90.2 \%$ | 323 |
|  | answered question | 358 |
|  | skipped question | 128 |

51. Do you allow students to submit assignments that were not submitted on the due date due to excused absences?

| Answer Options | Response <br> Percent | Response <br> Count |  |
| :--- | :---: | :---: | ---: |
| No | $2.1 \%$ | 9 |  |
| Yes | $97.9 \%$ | 414 | 423 |
|  | answered question | 63 |  |

52. Do you make EXTRA CREDIT available for students in order to provide opportunity for them to improve their grade? (If you answer NO you will be directed immediately to \#55.)

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $47.8 \%$ | 202 |
| Yes | $52.2 \%$ | 221 |
|  | answered question | 423 |
|  | skipped question | 63 |

53. Is the extra-credit work directly reflective of the course learning outcomes?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $9.5 \% \%$ | 21 |
| Yes | $90.5 \%$ | 199 |
|  | answered question | $\mathbf{2 2 0}$ |
|  | skipped question | $\mathbf{2 6 6}$ |

54. Is extra credit offered equally to every student?

Answer Options
No

| Response <br> Percent | Response <br> Count |
| :---: | :---: |
| $9.1 \%$ | 20 |
| $90.9 \%$ | 200 | answered questionskipped question266

55. Please indicate the approximate value you place on each of the following sources of evidence in determining a student's final grade by marking the appropriate box.

| Answer Options | $0 \%$ | $\mathbf{5 \%}$ | $\mathbf{1 0 \%}$ | $\mathbf{1 5 \%}$ | $\mathbf{2 0 \%}$ | $\mathbf{2 5 \%}$ | $\mathbf{3 0 \%}$ <br> or <br> More | Response <br> Count |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| a. Homework Assignments | 14 | 33 | 91 | 62 | 81 | 46 | 89 | 416 |
| b. Notebooks/Journals | 187 | 76 | 61 | 34 | 19 | 18 | 21 | 416 |
| c. Effort | 192 | 104 | 46 | 29 | 22 | 7 | 16 | 416 |
| d. Class Attendance | 312 | 54 | 18 | 12 | 5 | 3 | 12 | 416 |
| e. Work Habits | 259 | 68 | 41 | 15 | 12 | 8 | 13 | 416 |
| f. Neatness | 294 | 70 | 21 | 12 | 7 | 6 | 6 | 416 |
| g. Student Behavior | 278 | 60 | 36 | 12 | 16 | 6 | 8 | 416 |
| h. Class Participation | 128 | 87 | 89 | 42 | 32 | 14 | 24 | 416 |
| i. Improvement Over Time | 203 | 95 | 51 | 21 | 15 | 12 | 19 | 416 |
| j. Informal Observations | 229 | 81 | 52 | 18 | 15 | 8 | 13 | 416 |

56. Please identify the school for which you work and its location.

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| School: | $100.0 \%$ | 405 |
| City/Town: | $99.8 \%$ | 404 |
| State: | $100.0 \%$ | 405 |
|  | answered question | $\mathbf{4 0 5}$ |
|  | skipped question | $\mathbf{8 1}$ |

57. In which subject area do you primarily teach?

Answer Options
Computers/Digital Media
English
Foreign Language
History/Social Studies
Mathematics
Physical Education
Religious Studies
Science
Visual \& Performing Arts

Response
Percent 2.4\%
21.7\%
9.0\%
14.1\%
16.8\%
3.9\%
18.5\%
13.6\%
8.0\%

Response
Count 10
89
37
58
69
16
76
56
33
58. For how many years have you been a teacher?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| $1-5$ years | $19.0 \%$ | 78 |
| $6-10$ years | $21.2 \%$ | 87 |
| $11-15$ years | $13.1 \%$ | 54 |
| $16-20$ years | $12.9 \%$ | 53 |
| $21-25$ years | $8.8 \%$ | 36 |
| $26-30$ years | $6.8 \%$ | 28 |
| 31 years or more | $18.2 \%$ | 75 |
|  | answered question | $\mathbf{4 1 1}$ |
|  | skipped question | $\mathbf{7 5}$ |

59. What is the highest level of formal educational training you have completed?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| Bachelor's Degree in Education | $4.9 \%$ | 20 |
| Teaching Credential | $36.0 \%$ | 148 |
| Master's Degree in Education | $35.0 \%$ | 144 |
| Doctorate in Education | $1.5 \%$ | 6 |
| I have not earned a degree in education | $22.6 \%$ | 93 |

skipped question
60. How recently was your highest degree earned?

Answer Options

| Response <br> Percent | Response <br> Count |
| :---: | :---: |
| $28.0 \%$ | 115 |
| $23.4 \%$ | 96 |
| $14.8 \%$ | 61 |
| $8.0 \%$ | 33 |
| $7.5 \%$ | 31 |
| $8.0 \%$ | 33 |
| $10.2 \%$ | 42 |

answered question
skipped question
61. Did your formal educational training include any courses in grading?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $65.5 \%$ | 269 |
| Yes | $34.5 \%$ | 142 |
|  | answered question | 411 |
|  | skipped question | 75 |

62. Does your school train its teachers in the practice of GRADING as part of its professional development program?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $73.0 \%$ | 300 |
| Yes | $27.0 \%$ | 111 |
|  | answered question | 411 |
|  | skipped question | 75 |

63. Does your school train its teachers in the practice of ASSESSMENT as part of its professional development program?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $46.2 \%$ | 190 |
| Yes | $53.8 \%$ | 221 |
|  | answered question | 411 |
|  | skipped question | 75 |

## APPENDIX B

## ADMINISTRATOR SURVEY ON GRADING

## GRADING SURVEY FOR ADMINISTRATORS

| 1. Teachers in your school report a student's summative <br> grade in order to... |
| :--- |
| Answer Options |
| \#1 |
| a. ...communicate <br> a student's <br> achievement <br> status to the <br> student, parents, <br> school officials, <br> and others." |
| \#. |
| b. provide <br> information that a <br> student can use for <br> self-evaluation." |

2. On official GRADE REPORTS your school sends home, how is each student's grade reported?

| Answer Options | Response Percent | Response Count |
| :---: | :---: | :---: |
| a letter grade (A, B, C, D, or F) corresponding to a set of written descriptors for overall performance in a subject. | 95.9\% | 47 |
| a percentage grade based on a numerical scale with accompanying descriptors. | 4.1\% | 2 |
| a grade corresponding to a standardized performance rubric. | 0.0\% | 0 |
| A separate grade for each element of learning within each course (eg., written expression, content knowledge, problem-solving). | 0.0\% | 0 |
| Teachers write an individualized narrative describing the student's learning. | 0.0\% | 0 |
| Teachers select comments from a standardized list of comments describing the student's performance. | 0.0\% | 0 |
| answe | d question | 49 |
|  | question | 1 |

3. Does your school require teachers to include comments to supplement the grade? (If you answer NO, you will be directed immediately to question \#5.)

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $42.9 \%$ | 21 |
| Yes | $57.1 \%$ | 28 |
|  | answered question | 49 |
|  | skipped question | 1 |

4. How are those comments determined by the teachers?

| Answer Options | Response Percent | Response Count |
| :---: | :---: | :---: |
| Teachers select comments from a predetermined bank of comments. | 53.6\% | 15 |
| Teachers compose their own comments. | 3.6\% | 1 |
| Teachers can both select comments from a bank of comments or compose their own for each student. | 42.9\% | 12 |
|  | answered question | 28 |
|  | skipped question | 22 |

5. In general, how frequently does your school officially communicate student achievement via grade reports to its students and parents?

| Answer Options | Response <br> Percent | Respons <br> e Count |
| :--- | :---: | :---: |
| Every month | $2.0 \%$ | 1 |
| Every six weeks | $24.5 \%$ | 12 |
| Every nine weeks | $16.3 \%$ | 8 |
| Every twelve weeks | $0.0 \%$ | 0 |
| Current grades are available online at any time | $57.1 \%$ | 28 |
| Other (please specify) |  | 9 |

6. Does your school require teachers to use the same computer grade book? (If you answer NO, you will be directed immediately to question \#9.)

| Answer Options | Response <br> Percent | Respo <br> nse <br> Count |
| :--- | :---: | :---: |
| No | $10.2 \%$ | 5 |
| Yes | $89.8 \%$ | 44 |
|  | answered question | 49 |
|  | skipped question | 1 |

7. Please identify the computer grade-book you use at your school.

8. On your school's TRANSCRIPTS, how is each student's learning reported for each course?

## Answer Options

| Response | Respo <br> nse <br> Percent |
| :---: | :---: |
| Count |  |


| a letter grade (A, B, C, D, F) corresponding to a set of written <br> descriptors for each grade. | $89.6 \%$ | 43 |
| :--- | :--- | :--- |
| a grade based on a numerical scale with accompanying <br> descriptors. | $6.3 \%$ | 3 |
| a grade corresponding to a standardized performance rubric. | $4.2 \%$ | 2 |
| a separate grade for separate elements of learning within <br> each course (eg, written expression, content knowledge, <br> problem-solving). | $0.0 \%$ | 0 |
| narratives written by the course's teacher for each student. | $0.0 \%$ | 0 |
| comments selected from a standardized list of comments <br> describing the student's performance. | $0.0 \%$ | 0 |

10. Does your school have an official statement of purpose for grading? (If you answer NO, you will be directed immediately to question \#12.)

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $52.1 \%$ | 25 |
| Yes | $47.9 \%$ | 23 |

11. Does your school's statement of purpose identify communicating ACADEMIC

ACHIEVEMENT as the primary purpose for why grades are reported?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $20.0 \%$ | 4 |
| Yes | $80.0 \%$ | 16 |
|  | answered question | $\mathbf{2 0}$ |
|  | skipped question | $\mathbf{3 0}$ |

12. Does your school have school-wide content and skills standards in each subject area? (If you answer NO, you will be directed immediately to \#15.)

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $40.4 \%$ | 19 |
| Yes | $59.6 \%$ | 28 |
|  | answered question | $\mathbf{4 7}$ |
|  | skipped question | 3 |

13. Are teachers in your school required to assess and grade students' achievement of those standards?

Answer Options
No
Response
Percent
Response
Percent Count

Yes
65.5\%

10
19
answered question
skipped question 21
14. Has your school established benchmarks (eg., rubrics) for assessing students' achievement of each learning standard?

Answer Options

| Response |  |
| :---: | :---: |
| Percent | Response |
| Count |  |

No
46.4\%

13
Yes
53.6\%

15
answered question
skipped question
15. Does your school identify what CATEGORIES teachers may or may not consider in determining a student's final grade?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $66.0 \%$ | 31 |
| Yes | $34.0 \%$ | 16 |
|  | answered question | 47 |
|  | skipped question | 3 |

16. Does your school identify what WEIGHTS teachers may place on different elements in determining a student's final grade?

Answer Options

| Response <br> Percent | Response <br> Count |
| :---: | :---: |
| $48.9 \%$ | 23 |
| $51.1 \%$ | 24 |

answered question
skipped question 3
17. Does your school identify the METHODS teachers may use to determine a student's final grade (i.e., averaging marks over a term, standard weighting of various elements)?

| Answer Options | Response | Response |
| :--- | :---: | ---: |
| Percent | Count |  |
| No | $48.9 \%$ | 23 |
| Yes | $51.1 \%$ | 24 |
|  | answered question | 47 |
|  | skipped question | 3 |

18. Does your school have a school-wide grading scale with standardized gradeequivalent cut-offs (eg, $\mathbf{9 0 - 1 0 0 = A , 8 0 - 8 9 = B , 7 0 - 7 9 = C . 6 0 - 6 9 = D , 5 0 - 5 9 = F ) ? ~ ( I f ~ y o u ~ a n s w e r ~}$ NO, you will be directed immediately to \#20.)

Answer Options

| Response <br> Percent | Response <br> Count |
| :---: | :---: |
| $10.6 \%$ | 5 |
| $89.4 \%$ | 42 |

answered question
skipped question
19. Is the range for the grade that indicates failure (eg., F) larger than the range for other grades?
Answer Options

| Response | Response |
| :---: | :---: |
| Percent | Count |

No
9.5\%

4
Yes
90.5\%

38
answered question
skipped question
8
20. In courses that have multiple sections taught by multiple teachers, are uniform assessments (eg, examinations, compositions, performances, portfolios, reports) administered as part of the regular assessment program?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $46.8 \%$ | 22 |
| Yes | $53.2 \%$ | 25 |
|  | answered question | 47 |
|  | skipped question | 3 |

21. Does your school have minimum attendance requirements students must meet in order to pass each course?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $17.0 \%$ | 8 |
| Yes | $83.0 \%$ | 39 |
|  | answered question | $\mathbf{4 7}$ |
|  | skipped question | 3 |

22. Please identify the school for which you work and its location.

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| School: | $100.0 \%$ | 41 |
| City/Town: | $100.0 \%$ | 41 |
| State: | $100.0 \%$ | 41 |
|  | answered question | 41 |
|  | skipped question | 9 |

23. Please mark your primary position as an administrator.

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| President | $0.0 \%$ | 0 |
| Principal | $52.9 \%$ | 18 |
| Vice Principal for Academics | $20.6 \%$ | 7 |
| Vice Principal for Student Life | $5.9 \%$ | 2 |
| Director of Professional Development | $0.0 \%$ | 0 |
| Dean/Vice Principal for Student Discipline | $5.9 \%$ | 2 |
| Dean of Studies | $14.7 \%$ | 5 |
| Other Position (please specify) | answered question | 12 |

24. For how many years have you been an administrator?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| $1-5$ years | $25.6 \%$ | 11 |
| $6-10$ years | $23.3 \%$ | 10 |
| $11-15$ years | $11.6 \%$ | 5 |
| $16-20$ years | $11.6 \%$ | 5 |
| $21-25$ years | $16.3 \%$ | 7 |
| $26-30$ years | $4.7 \%$ | 2 |
| 31 years or more | $7.0 \%$ | 3 |
|  | answered question | $\mathbf{s k i p p e d}$ question |

25. What is the highest level of formal educational training you have completed?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| Bachelor's Degree in Education | $4.7 \%$ | 2 |
| Teaching Credential | $11.6 \%$ | 5 |
| Master's Degree in Education | $60.5 \%$ | 26 |
| Doctorate in Education | $4.7 \%$ | 2 |
| I have not earned a degree in education | $18.6 \%$ | 8 |
|  | answered question | 43 |
|  | skipped question | 7 |

26. How recently was your highest degree earned?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| Within the last five years | $23.3 \%$ | 10 |
| Between 6 and 10 years ago | $9.3 \%$ | 4 |
| Between 11 and 15 years ago | $16.3 \%$ | 7 |
| Between 16 and 20 years ago | $20.9 \%$ | 9 |
| Between 21 and 25 years ago | $11.6 \%$ | 5 |
| Between 26 and 30 years ago | $9.3 \%$ | 4 |
| 31 years ago or more | $9.3 \%$ | 4 |
|  | answered question | $\mathbf{4 3}$ |
|  | skipped question | $\mathbf{7}$ |

27. Did your formal educational training include any courses in grading?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $65.1 \%$ | 28 |
| Yes | $34.9 \%$ | 15 |
|  | answered question | 43 |
|  | skipped question | 7 |

28. Has your school trained its faculty in the practice of GRADING as part of its professional development program? (If you answer NO you will be directed immediately to \#30.)

Answer Options
Response
Response
Percent Count
69.8\% 30

No
30.2\%

13
answered question
skipped question
29. When was this training administered to the faculty?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| Within the last 5 years. | $83.3 \%$ | 10 |
| Between 6 and 10 years ago. | $16.7 \%$ | 2 |
| More than 10 years ago. | $0.0 \%$ | 0 |
|  | answered question | $\mathbf{1 2}$ |
|  | skipped question | $\mathbf{3 8}$ |

30. Has your school trained its faculty in the practice of ASSESSMENT as part of its professional development program? (If you answer NO you will be directed immediately to \#32.)

Answer Options

| Response <br> Percent | Response <br> Count |
| :---: | :---: |
| $41.9 \%$ | 18 |
| $58.1 \%$ | 25 |

$\begin{array}{rr}\text { answered question } & 43 \\ \text { skipped question } & 7\end{array}$
31. When was this training administered to the faculty?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| Less than 5 years ago. | $68.2 \%$ | 15 |
| Between 6 and 10 years ago. | $31.8 \%$ | 7 |
| More than 10 years ago. | $0.0 \%$ | 0 |
|  | answered question | $\mathbf{2 2}$ |
|  | skipped question | $\mathbf{2 8}$ |

## APPENDIX C

SPREADSHEET OF THEMATIC ANALYSIS OF GRADING POLICY DOCUMENTS

| School Code | Handbook Available | Policies Available Online? | Letter Grades? | Grading Purpose? |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| A | Acad Policies | Yes | Yes | Nonachvmnt |
| B | Acad Page | Yes. Thin | Yes | Not Stated on Webpage |
| C | Fac Hndbk Policies | Up to ea dept | Yes | Achievement. |
| D | Hndbk | No | Yes | Not Stated in HB |
| E | Yes | No | Yes | Achievement, contradictions |
| F | Yes | No | Yes | Not Stated in HB |
| G | Yes | Up to ea teacher. | Yes | Achievement. |
| H | Yes | No | Yes | Not Stated in HB |
| I | Yes | Yes | Yes | Achievement |
| J | Yes | No | Yes | Not Stated in HB |
| K | Yes | Up to ea teacher. | Yes | Not Stated in HB. |
| L | Yes | Yes | Yes | Achievement |
| M | Yes | Up to ea dept | Yes | Not Stated in HB. |
| N | Yes | No | Yes | Not Stated in HB |
| O | Yes | No | Yes | Not Stated in HB |
| P | Yes | Up to ea dept | Yes |  |
| Q | Yes | Yes. Thin | Yes | Nonachvmnt |
| R | Yes | No | Yes | Not Stated in HB |
| ST | Yes | No. | Yes | Not Stated in HB |
| U | Yes | No | Yes | Not Stated in HB |
| V | Yes | Up to ea teacher. | Yes | Not Stated in HB. |
| W | Yes | Yes | Yes |  |
| X | Yes | Up to ea teacher. | Yes | Nonachvmnt |
| Y | Yes | Up to ea dept | Yes | Not Stated in HB. |
| Z | Yes | Yes. Thin | Yes | Not Stated in HB |
| AA | Yes | Up to ea teacher. | Yes | Not Stated in HB. |
| BB | Yes | Yes | Yes | Achievement |
| CC | Yes | No | Yes | Not Stated in HB |
| DD | Yes | Yes | Yes | Achievement \& Nonachvmnt |
| EE | Yes | Yes | Yes | Achievement |
| FF | Yes | Yes | Yes | Not Found |
| GG | Yes | Yes. | Yes | Not Stated in HB |
| HH | Yes | No | Yes |  |
| II | Yes | Yes | Yes | Nonachvmnt |
| JJ | Yes | No | Yes | Not Stated in HB |
| KK | Yes | Yes | Yes | Not Stated in HB |
| LL | Yes | Up to ea dept | Yes | Not Stated in HB. |
| MM | Yes | No | Yes | Not Stated in HB |
| NN | Yes | Up to ea teacher. | Yes | Not Stated in HB. |


| School <br> Code | Handbook <br> Available | Policies <br> Available <br> Online? |  |  |  | Letter <br> Grades? | Grading Purpose? |
| :---: | :--- | :--- | :--- | :--- | :---: | :---: | :---: |
| OO | Yes | No | Yes | Not Stated in HB |  |  |  |
| PP | Yes | Yes. Thin | Yes | Not Stated in HB |  |  |  |
| QQ | Yes | No | Yes | Not Found |  |  |  |
| RR | Yes | Yes | Yes | Not Stated in HB |  |  |  |
| SS | Yes | Yes. Thin | Yes | Not Stated in HB |  |  |  |
| TT | Yes. Webpage | Yes. Thin | Yes | Not Stated in HB |  |  |  |
| UU | Yes | No | Yes | Not Stated in HB |  |  |  |
| VV | Yes | Up to ea teacher. | Yes | Not Stated in HB. |  |  |  |
| WW | Yes | Yes | Yes | Not Stated in HB |  |  |  |
| XX | Yes | No | Yes | Not Stated in HB |  |  |  |
| YY | Yes | Up to ea teacher. | Yes | Not Stated in HB. |  |  |  |
| ZZ | Yes | Up to ea teacher. | Yes | Not Stated in HB. |  |  |  |
| AAA | Yes | Yes | Yes | Achievement |  |  |  |


| School Code | Grade Descriptors | Attendance Counts? | Grade Range for $F$ | Zero used? | HW <br> Counts? |
| :---: | :---: | :---: | :---: | :---: | :---: |
| A | GPA; mix of criteria \& normative | Yes | Not <br> Available <br> Not | Yes | Yes |
| B | Not Published in PS Handbook | Yes | Published Not | No mention. | Yes |
| C | Not Published in PS Handbook | Yes | Published | No mention. | No mention. |
| D | GPA values, criteria \& normative Criteria Percentages \& GPA | Not stated | Yes 0-59 = F | No mention. | No mention. |
| E | Values <br>  | Yes | $\begin{aligned} & \text { Yes 0-59 = F } \\ & \text { Not } \end{aligned}$ | Yes | Yes |
| F | normative | No | Published | Yes | No mention. |
| G | Percentages \& GPA Values | Yes | Yes 0-59 = F | Yes | Yes |
| H | Percentages | Yes | Yes 0-59 = F | No mention. | Yes |
| I | Percentages, Criteria w rubric Percentages, GPA, criteria \& | Yes | Yes 0-59 = F | Yes | Yes |
| J | normative | Not stated | Yes 0-59 = F | No mention. | Yes |
| K | Percentages | Not stated | Yes 0-59 = F | No mention. | No mention. |
| L | Percentages, criteria \& normative | Yes | $\begin{aligned} & \text { Yes } 0-59=F \\ & \text { Not } \end{aligned}$ | Yes | No mention. |
| M | Mix of criteria \& normative | Yes | Published | Yes | No mention. |
| N | Percentages, numbers, normative | Yes | Yes 0-59 = F | Yes | No mention. |
| O | Percentages, criteria \& normative | Yes | Yes 0-59 = F | Yes | Yes |
| P | Criteria | Yes | Yes 0-60 $=\mathrm{F}$ | Yes | Yes |
| Q | Percentages, criteria \& normative | Yes | Yes 0-59 $=\mathrm{F}$ | No mention. | Yes |
| R | Percentages, criteria \& normative | Yes | Yes 0-59 = F | Yes | No mention. |
| ST | Percentages, criteria \& normative | Yes | Yes 0-59 = F | No mention. | Yes |
| U | Percentage Equivalent Criteria, mix achvmnt \& | Yes | $\text { No. } 59=F$ <br> Not | No mention. | No mention. |
| V | nonachvmnt | Yes | Published | No mention. | Yes |
| W | Percentages | Yes | Yes 0-64 $=\mathrm{F}$ | Unclear. | No mention. |
| X | Percentages, criteria \& normative | Yes | Yes 0-59 = F | Yes. | No mention. |
| Y | Criteria | Yes | Yes 0-59 = F | Yes. | No mention. |
| Z | Percentage Equivalent | Yes | $\begin{aligned} & \text { Yes } 0-59=F \\ & \text { Not } \end{aligned}$ | Unclear. | Yes |
| AA | 5-pt equivalent, No descriptors | Yes | Published <br> Not | No mention. | No mention. |
| BB | 5-Pt Scale, no descriptors | Yes | Published | No mention. | No mention. |
| CC | Percentages, No descriptors Percentages, normative | Yes | Yes 0-59 = F | Yes | Yes |
| DD | descriptors | Yes | $\begin{aligned} & \text { Yes } 0-59=F \\ & \text { Not } \end{aligned}$ | Yes | No mention. |
| EE | GPA equivalent | No | Published <br> Not | No mention. | No mention. |
| FF | Criteria | No | Published | No mention. | No mention. |
| GG | Percentages, criteria \& normative | No | Yes 0-59 = F | No mention. | Yes |
| HH | Percentages, GPA equivalent | Yes | $\begin{aligned} & \text { Yes 0-59 = F } \\ & \text { Not } \end{aligned}$ | No mention. | No mention. |
| II | Percentages, criteria \& normative | Not stated | Published | No mention. | No mention. |
| JJ | ercentages \& GPA Values Percentages, normative | Not stated | Yes 0-59 = F | Yes | Yes |
| KK | descriptors | Yes | $\begin{aligned} & \text { Yes } 0-59=F \\ & \text { Not } \end{aligned}$ | Yes | Yes |
| LL | Not Published in PS Handbook | Not stated | Published | No mention. | No mention. |
| MM | Normative Descriptors | Yes | Yes 0-59 = F | No mention. | Yes |
| NN | Percentages, criteria \& normative | Yes | Yes 0-59 = F | Yes | Yes |
| 00 | Numbers | Yes | Yes 0-59 = F | Yes | Yes |


| School Code | Grade Descriptors | Attendance Counts? | Grade Range for F | Zero used? | HW <br> Counts? |
| :---: | :---: | :---: | :---: | :---: | :---: |
| PP | Percentages, criteria \& normative | Yes | Yes 0-59 = F | Unclear. | Yes |
| QQ | Percentages, GPA equivalent Percentages, normative | Not stated | Yes 0-59 = F | No mention. | No mention. |
| RR | descriptors | No | Yes 0-59 = F <br> Not | No mention. | No mention. |
| SS | Criteria narrative descriptors | Yes | Published <br> Not | Yes | No mention. |
| TT | Percentages, Criteria Descriptors | Not stated | Published <br> Not | No mention. | No mention. |
| UU | 5-Pt Scale, no descriptors | Yes | Published Not | Yes | Yes |
| VV | 5-Pt Scale, no descriptors | Yes | Published | Yes | Yes |
| WW | Percentages \& Criteria | Not stated | Yes 0-59 = F | No mention. | No mention. |
| XX | Percentages, criteria \& normative | Yes | Yes 0-59 = F <br> Not | Yes | No mention. |
| YY | Percentages, No descriptors | Yes | Published | No mention. | No mention. |
| ZZ | Percentages | Yes | Yes 0-59 = F <br> Not | No mention. | No mention. |
| AAA | Numbers, Normative Descriptors | No | Published | Yes | Yes |

## APPENDIX D

IRBPHS PERMISSION

From: irbphs@usfca.edu
Subject: IRB Application \#09-061 - APPROVED
Date: September 15, 2009 8:14:03 AM PDT
To:
Cc:

September 15, 2009
Dear Mr. Imperial:
The Institutional Review Board for the Protection of Human Subjects (IRBPHS) at the University of San Francisco (USF) has reviewed your request for human subjects approval regarding your study.

Your application has been approved by the committee (IRBPHS \#09-061).
Please note the following:

1. Approval expires twelve (12) months from the dated noted above. At that time, if you are still in collecting data from human subjects, you must file a renewal application.
2. Any modifications to the research protocol or changes in instrumentation (including wording of items) must be communicated to the IRBPHS. Re-submission of an application may be required at that time.
3. Any adverse reactions or complications on the part of participants must be reported (in writing) to the IRBPHS within ten (10) working days.

If you have any questions, please contact the IRBPHS at (415) 422-6091.
On behalf of the IRBPHS committee, I wish you much success in your research

APPENDIX E
INTRODUCTORY LETTER TO SUPERINTENDENTS REQUESTING PERMISSION

Dear Superintendent $\qquad$
My name is Peter Imperial. I am Principal at Saint Mary's College High School in Berkeley, California. I am conducting a study into the practices of grading and reporting of student learning at Catholic high schools as part of my doctoral research at the University of San Francisco. I am writing to ask for your permission to use teachers and administrators in randomly selected Catholic high schools in your Diocese to complete online surveys regarding the purposes and practices teachers and schools employ in determining students' grades. This will entail taking an online survey. The survey should take between 8 and 15 minutes to complete.

Participants' identities and responses to the survey will be anonymous and individual results will not be shared with anyone. Attached to this email is an Information Sheet and a copy of the Research Subject's Bill of Rights which explain in greater detail the objectives of this study and the protections assured participants. It is my hope that this study will provide valuable insights and will assist Catholic high school educators in the important practice of grading students.

To grant permission all you need to do is respond to this email indicating that you give your permission for me to request the participation of randomly selected Catholic high schools in your jurisdiction.

Thank you very much for your assistance.

Pete Imperial
APPENDIX F
INTRODUCTORY LETTER TO PRINCIPALS REQUESTING PERMISSION

## Dear Principal

$\qquad$ ,

My name is Peter Imperial. I am Principal at Saint Mary's College High School in Berkeley, California. I am conducting a study into the practices of grading and reporting of student learning at Catholic high schools as part of my doctoral research at the University of San Francisco. I am writing to ask for your permission to use your teachers and your administrators in to complete online surveys regarding the purposes and practices teachers and schools employ in determining students' grades.

This will entail teachers completing an online survey that will take 10 to 15 minutes. Selected administrators in charge of overseeing your school's academic program, including yourself, will take an abridged version of the same survey. That survey should take between 8 to 12 minutes to complete. The surveys will be administered in late January or February 2010.

Participants' identities and responses to the survey will be anonymous and individual results will not be shared with anyone. Attached to this email is an Information Sheet and a copy of the Research Subject's Bill of Rights which explain in greater detail the objectives of this study and the protections assured participants. It is my hope that this study will provide valuable insights and will assist Catholic high school educators in the important practice of grading students.

To grant permission all you need to do is respond to this email indicating that you give your permission for me to request the participation of your school's teachers and administrators in charge of academics.

Thank you very much for your assistance. I am deeply grateful.

Sincerely,

Pete Imperial

## APPENDIX G <br> LIST OF CATHOLIC SCHOOLS FROM BISHOPS REGION XI

## California Catholic High Schools Listed by City

Alameda, CA<br>St Joseph Notre Dame High School<br>Alhambra, CA Ramona Convent Secondary School<br>Anaheim, CA<br>Cornelia Connelly School<br>Atherton, CA<br>Sacred Heart Preparatory<br>Auburn, CA<br>St Joseph Parish School<br>Bakersfield, CA<br>Garces Memorial High School<br>Bellflower, CA<br>St John Bosco High School<br>Belmont, CA<br>Notre Dame High School<br>Berkeley, CA<br>Saint Mary's College High School<br>Beverly Hills, CA<br>Good Shepherd Catholic School<br>\section*{Burbank, CA}<br>Bellarmine-Jefferson High School<br>Providence High School<br>Burlingame, CA<br>Mercy High School<br>Calexico, CA<br>Vincent Memorial Catholic High School<br>Carmichael, CA<br>Jesuit High School

Concord, CA
De La Salle High School Carondelet High School

Downey, CA
St Matthias High School
Encino, CA
Crespi Carmelite High School
Eureka, CA
St Bernard S Catholic School

## Fresno, CA

San Joaquin Memorial High School
Fullerton, CA
Rosary High School
Gardena, CA
Junipero Serra High School
Glendale, CA
Holy Family High School
Glendora, CA
St Lucy's Priory High School
Hayward, CA
Moreau Catholic High School
Inglewood, CA
St Mary's Academy
Kentfield, CA
Marin Catholic High School
La Canada, CA
St Francis High School
Flintridge Sacred Heart Academy
La Puente, CA
Bishop Amat High School

La Verne, CA
Damien High School
Lakewood, CA
St Joseph High School
Lancaster, CA
Paraclete High School

## Long Beach, CA

St Anthony High School
Los Angeles, CA
St Paul Elementary School
Notre Dame Academy Girls HS
Sacred Heart High School
Bishop Mora Salesian High School
Cathedral High School
Verbum Dei High School
Bishop Conaty-our Lady Of Lore
Immaculate Heart School
Mission Hills, CA
Bishop Alemany High School
Modesto, CA
Central Catholic High School
St Felicissimus School
Montebello, CA
Cantwell Sacred Heart Of Mary
Mountain View, CA
St Francis High School
Napa, CA
Justin-Siena High School
Kolbe Academy
Oakland, CA
St Elizabeth High School
Holy Names High School
Bishop O Dowd High School
Ojai, CA
Villanova Preparatory School
Oxnard, CA
Santa Clara High School

Palo Cedro, CA
Bishop Quinn High School
Panorama City, CA
St Genevieve High School
Pasadena, CA
Mayfield Senior School
La Salle High School
Petaluma, CA
St Vincent De Paul High School
Playa Del Rey, CA
St Bernard High School
Pomona, CA
Pomona Catholic High School
Portola Valley, CA
Woodside Priory School
Rancho Santa Margarita, CA
Santa Margarita Catholic Hi Sc

## Red Bluff, CA

Mercy High School

## Redwood City, CA

Our Lady Of Mt Carmel School

## Richmond, CA

Salesian High School
Ripon, CA
St Thomas Aquinas Academy
Riverside, CA
Notre Dame High School
Rosemead, CA
Don Bosco Technical Institute
Sacramento, CA
St Francis High School
Christian Brothers High School

## Salinas, CA

Notre Dame High School
Palma High School

San Anselmo, CA
San Domenico School
San Bernardino, CA
Aquinas High School
San Diego, CA
St Augustine High School
Academy Of Our Lady Of Peace
Cathedral High School
Marian Catholic High School
San Francisco, CA
Immaculate Conception Academy
Mercy High School
Archbishop Riordan High School
Sacred Heart Cathedral Preparatory
St Ignatius College Preparatory
Stuart Hall High School
Convent of the Sacred Heart HS
San Gabriel, CA
San Gabriel Mission High School
San Jose, CA
Presentation High School
Notre Dame High School
Bellarmine College Preparatory
Archbishop Mitty High School
St Thomas More School
San Juan Capistrano, CA
J Serra High School
San Marcos, CA
Sierra Madre Academy
San Mateo, CA
Junipero Serra High School
San Pedro, CA
Mary Star Of The Sea High School
Santa Ana, CA
Mater Dei High School
Santa Barbara, CA
Bishop Garcia Diego High School

Santa Clara, CA
St Lawrence Academy
Santa Fe Springs, CA
St Paul High School
Santa Maria, CA
St Joseph High School
Santa Monica, CA
St Monica Catholic High School
Santa Rosa, CA
Ursuline High School
Cardinal Newman High School
Sherman Oaks, CA
Notre Dame High School

Sierra Madre, CA

Alverno High School
Silverado, CA
St Michael's Prep School
Sonoma, CA
Hanna Boys Center School

## Stockton, CA

St Mary's High School
Tahoe City, CA
Thomas Aquinas
Thousand Oaks, CA
La Reina High School

Torrance, CA
Bishop Montgomery High School
Nativity School
Vallejo, CA
St Patrick-St. Vincent High School
Ventura, CA
St Bonaventure High School
St Augustine Academy

Watsonville, CA
St Francis Central Coast Catholic HS
West Hills, CA
Chaminade College Preparatory
Woodland Hills, CA

Louisville High School
Yucca Valley, CA
Our Lady Of The Desert

# Hawai'i Catholic High Schools Listed by City 

Honolulu, HI<br>Sacred Hearts Academy<br>St Francis School<br>St Louis School<br>Damien Memorial High School<br>Maryknoll School

Wailuku, HI

St Anthony Junior-Senior High School

## Nevada Catholic High Schools Listed by City

Las Vegas, NV
Bishop Gorman High School
Reno, NV
Bishop Manogue Catholic High School

## APPENDIX H

TEACHER SURVEY INTRODUCTORY EMAIL

## Dear Administrative Colleagues,

Once again, I appreciate your support of my doctoral research on grading in Catholic high schools. Below the line is my introduction letter to your teachers with directions for them to take the online Teachers' Survey on grading. (A separate email contains directions for the Administrators' Survey.) Please forward the entire text below to your teaching faculty.
In each of the next two weeks I will ask you to send them a reminder email. When the study is complete I will contact you in case you would like to see the results of the survey.

Pete Imperial
April 13, 2010
Dear Colleague,
My name is Pete Imperial, and I am Principal of Saint Mary's College High School in Berkeley. I am also a doctoral student at the University of San Francisco. Your Principal has granted me permission to ask your participation in a research study of the practice of grading in Catholic secondary schools. More specifically, mine is an investigation of the grading purposes, policies, and practices of Catholic high-school teachers and of the schools in which they work. I am asking you to complete an online survey. I appreciate the demands of your job, and I am very grateful for your help. The study will benefit teachers completing the survey.

My study has been approved by the University of San Francisco's Institutional Review Board for the Protection of Human Subjects, which safeguards the confidentiality of participants. Your Principal has a copy of the research participant's rights and a detailed description of the study. The teacher survey is a 63 -item online survey entitled, Grading Purposes, Policies, and Practices in Catholic High Schools, and should take 8 to 15 minutes to complete. The survey seeks information about the purposes, policies, and practices that guide teachers in determining students' grades in their classes. It also asks background questions regarding respondents' experience and professional training.

Please be assured that your responses will be remain completely confidential. No individual identities will be used in any reports or publications resulting from this study. I have listed participants' rights at the bottom of this page. Please click on the hyperlink at the top or bottom of this page and follow the instructions. For a number of items, a "no" response will skip you past irrelevant questions. Thank you very much for participating in this survey.

With deep appreciation,
Pete Imperial

## To begin the survey, please go to http://www.surveymonkey.com/s/WJDNYTS

The Human Subjects Review Board at the University of San Francisco has approved this project, and requires that I inform you of the following:

- If you agree to participate in this study you will take an online survey.
- Participation in this research is strictly voluntary. You are free to decline to answer any questions that make you feel uncomfortable, and you may stop participation at any time.
- Confidentiality will be strictly protected. The researcher will never have access to the email database, responses will be coded, and the research will be kept in a secure location.
- There will be no cost to you in taking this survey, and there will be no reimbursement for participating in the research.
If you have questions regarding the study you may contact the researcher at catholicschoolsurvey@comcast.net. Further questions may be directed to the USF office (IRBHS) in charge of protecting volunteers in research at 415-422-6091.


## APPENDIX I

ADMINISTRATOR SURVEY INTRODUCTORY EMAIL

Dear Colleague,
This is the Administrator Survey, the second of the two surveys I have sent you today. While the Teacher Survey is intended for your teaching faculty, this survey is intended for the administrators in charge of the academic program at your school (eg., the Principal, Vice Principal for Academics, and Dean of Studies). I ask that you forward the text of this survey (found below the line) to your academic administrators. In each of the next two weeks I will ask you to forward a reminder email. Once I complete the dissertation I will share the results with you. Thank you again, and God bless you.

Pete Imperial


April 13, 2010
Dear Fellow Administrator,
My name is Pete Imperial, and I am Principal of Saint Mary's College High School in Berkeley. I am also a doctoral student at the University of San Francisco. Your Principal has granted me permission to ask your participation in a research study of the practice of grading in Catholic secondary schools. More specifically, mine is an investigation of the grading purposes, policies, and practices of Catholic high-school teachers and of the schools in which they work. I am asking you to complete an online survey. I very much appreciate the many demands of your job, and I am very grateful for your help. The study will benefit from a large number of administrators completing the survey.

My study has been approved by the University of San Francisco's Institutional Review Board for the Protection of Human Subjects, which safeguards the confidentiality of participants. Your Principal has a copy of the research participant's rights and a detailed description of the study. The survey is a 31 -item online survey entitled, Grading Purposes, Policies, and Practices in Catholic High Schools, and should take 7 to 10 minutes to complete. As the title implies, it asks about the purposes, policies, and practices that guide schools and teachers in determining students' grades. It also asks you to provide background information regarding respondents' experience and professional training.

Please be assured that your responses will be remain completely confidential. No individual identities will be used in any reports or publications resulting from this study. I have listed participants' rights at the bottom of this page. Please click on the hyperlink at the top or bottom of this page and follow the instructions. For a number of items, a "no" response will skip you past irrelevant questions. Thank you very much for considering my request and for participating in this survey.

With deep appreciation,
Pete Imperial

## To begin the survey, please go to http://www.surveymonkey.com/s/WJRZHQ6

The Human Subjects Review Board at the University of San Francisco has approved this project, and requires that I inform you of the following:

- If you agree to participate in this study you will take an online survey
- Participation in this research is strictly voluntary. You are free to decline to answer any questions that make you feel uncomfortable, and you may stop participation at any time.
- Confidentiality will be strictly protected. The researcher will never have access to the email database, responses will be coded, and the research will be kept in a secure location. - There will be no cost to you in taking this survey, and there will be no reimbursement for participating in the research.
If you have questions regarding the study you may contact the researcher at catholicschoolsurvey@comcast.net. Further questions may be directed to the USF office (IRBHS) in charge of protecting volunteers in research at 415-422-6091.


## APPENDIX J

RESEARCH STUDY INFORMATION SHEET

## Information Sheet <br> UNIVERSITY OF SAN FRANCISCO A RESEARCH STUDY

Peter Imperial is a graduate student in the doctoral program for Leadership Studies in Catholic Educational Leadership at the University of San Francisco and is conducting a study to discover the purposes, policies, and practices that guide teachers in assigning grades to students at Catholic secondary schools. This study will investigate the practice of grading in Catholic secondary schools. Specifically, the study will discover teachers' purposes for grading (why teachers grade), what methods teachers employ in determining each student's grade (how teachers grade), and what school or district policies guide teachers in their grading determinations. The study will seek to discover the extent to which teachers' grading practices are aligned with their expressed purposes and with their schools' purpose.

You are being asked to participate in this research study because you are a full-time lay teacher at a Catholic high school. The study will involve you completing a 10-to-15minute structured survey entitled, An Examination of Grading Purposes, Beliefs and Practices Among Catholic Secondary-School Teachers. The first survey item asks respondents to rank the order of six choices, but most items ask for simple "Yes or No" responses. The survey will be administered electronically using SurveyMonkey and will be sent in November 2009. The survey has 65 items.

Some of the questions on the survey may make you feel uncomfortable, but you are free to decline to answer any of the questions you do not wish to answer, or to stop participation at any time. Although you will not be asked to put your name on the survey, participation in research may mean a loss of confidentiality. Study records will be kept as confidential as is possible. No individual identities will be used in any reports or publications resulting from the study. Study information will be coded and kept in locked files at all times. Only study personnel will have access to the files. Individual results will not be shared with personnel of your school or the (arch)diocesan offices.

There will be no direct benefit to you from participating in this study. The anticipated benefit of this study is a greater understanding of how students' grades are determined by high-school classroom teachers. There will be no cost to you as a result of taking part in this study, nor will you be reimbursed for your participation in this study. If you so desire, I will be glad to send you a copy of the study upon completion. Please send your request via email:

(Subject: "Doctoral Study Request").
If you have any questions, please contact the researcher via email at or by phone at
. If you have further questions about this study, please feel free to contact IRBHS (Institutional Review Board for the Protection of Human Subjects) at the University of San Francisco. You may contact IRBPHS by calling (415) 422-6091 and leaving a voicemail message, by sending an email to IRBPHS@usfca.edu, or by writing to IRBPHS, Department of Psychology, University of San Francisco, 2130 Fulton Street, San Francisco, CA 94117-1080.

Participation in this study is voluntary. You are free to decline to be in this study or to withdraw from it at any point. Your school is aware of this study but does not require you to participate in this research and your decision as to whether or not to participate will have no influence on your present or future status as an employee at your school.

## APPENDIX K

RESEARCH SUBJECTS BILL OF RIGHTS

The rights below are the rights of every person who is asked to be in a research study. As a research subject, I have the following rights:

## Research Subjects Bill of Rights

Research subjects can expect:

- To be told the extent to which confidentiality of records identifying the subject will be maintained and of the possibility that specified individuals, internal and external regulatory agencies, or study sponsors may inspect information in the medical record specifically related to participation in the clinical trial.
- To be told of any benefits that may reasonably be expected from the research.
- To be told of any reasonably foreseeable discomforts or risks.
- To be told of appropriate alternative procedures or courses of treatment that might be of benefit to the subject.
- To be told of the procedures to be followed during the course of participation, especially those that are experimental in nature.
- To be told that they may refuse to participate (participation is voluntary), and that declining to participate will not compromise access to services and will not result in penalty or loss of benefits to which the subject is otherwise entitled.
- To be told about compensation and medical treatment if research related injury occurs and where further information may be obtained when participating in research involving more than minimal risk.
- To be told whom to contact for answers to pertinent questions about the research, about the research subjects' rights and whom to contact in the event of a research-related injury to the subject.
- To be told of anticipated circumstances under which the investigator without regard to the subject's consent may terminate the subject's participation.
- To be told of any additional costs to the subject that may result from participation in the research.
- To be told of the consequences of a subjects' decision to withdraw from the research and procedures for orderly termination of participation by the subject.
- To be told that significant new findings developed during the course of the research that may relate to the subject's willingness to continue participation will be provided to the subject.
- To be told the approximate number of subjects involved in the study.
- To be told what the study is trying to find out;
- To be told what will happen to me and whether any of the procedures, drugs, or devices are different from what would be used in standard practice;
- To be told about the frequent and / or important risks, side effects, or discomforts of the things that will happen to me for research purposes;
- To be told if I can expect any benefit from participating, and, if so, what the benefit might be;
- To be told of the other choices I have and how they may be better or worse than being in the study; To be allowed to ask any questions concerning the study both before agreeing to be involved and during the course of the study;
- To be told what sort of medical or psychological treatment is available if any complications arise;
- To refuse to participate at all or to change my mind about participation after the study is started; if I were to make such a decision, it will not affect my right to receive the care or privileges I would receive if I were not in the study;
- To receive a copy of the signed and dated consent form; and
- To be free of pressure when considering whether I wish to agree to be in the study.

If I have other questions, I should ask the researcher or the research assistant. In addition, I may contact the Institutional Review Board for the Protection of Human Subjects (IRBPHS), which is concerned with protection of volunteers in research projects. I may reach the IRBPHS by calling (415) 422-6091, by electronic mail at IRBPHS@usfca.edu, or by writing to USF IRBPHS, Department of Counseling Psychology, Education Building, 2130 Fulton Street, San Francisco, CA 94117-1080.

## APPENDIX L

VALIDITY PANEL COVER LETTER (EMAIL)

Dear $\qquad$
Thank you very much for your willingness to read over the surveys I have developed for my dissertation on grading in Catholic secondary schools. Your criticisms will be very helpful to me, especially since my day job prevents me from spending as much time on my project as I would like. I apologize for the delay in sending these to you. Since I first contacted you around Christmas I have reworked the two surveys I am planning to use.

Mine is a relatively straightforward study. The purpose of my study will be to discover the purposes for which Catholic secondary schools and their teachers report students' grades; identify the grading purposes, policies, and practices that are employed by teachers and the schools where they work; assess the extent of alignment that exists between teachers' grading practices and the purposes teachers and their schools' express; and compare teachers' practices with what current and long-standing research has determined to be best practices. The study will further investigate the amount of training in grading teachers receive in their academic preparation and as part of their ongoing professional development at the schools where they are employed.

## I have four Research Questions:

1. To what extent does academic achievement comprise the grades Catholic highschool teachers report for their students?
2. What grading practices do Catholic secondary-school teachers currently employ in determining their students' grades?
3. To what extent are Catholic secondary-school teachers' grading practices consistent with their expressed purposes for grading?
4. To what extent are Catholic secondary-school teachers' grading practices consistent with their schools' purposes for grading?

I have not found much research on grading that focuses on Catholic secondary schools, so I hope the study will be useful in forwarding a professional conversation. To find out what is going on I will administer two surveys, one to teachers and one to administrators, at thirty-six Catholic high schools in the western U.S. I hope to receive 500 teacher responses, balanced among the various academic disciplines.

I will use Survey Monkey to administer the survey; for you, however, I have merely attached the surveys as MS Word documents. I will be very grateful if you read the questions and offer feedback: Are my questions clear and understandable? Am I asking the right questions? My primary focus is on the classroom teacher-which is why the Teacher Survey is so much longer than the administrator survey--but I do need to discover the extent to which school administrations provide guidance to teachers in terms of official purposes for grading or explicit grading policies. If you could give me feedback by $\qquad$ _, I will be very grateful.

Thanks again, and please do not hesitate to call or email me if you have any questions. My cell phone number is

Gratefully,

Pete

## APPENDIX M

VALIDITY PANEL EVALUATION FORM

## Validity Panel Questionnaire and Evaluation Form

1. How long did it take to complete the Teacher Survey? $\qquad$
2. How long did it take to complete the Administrator Survey? $\qquad$

## Content Validity

3. Are the questions clearly expressed?

No $\qquad$ Yes $\qquad$ If No please comment:
4. Are any items missing that should be surveyed?

No $\qquad$ Yes $\qquad$ If Yes please comment:
5. Should any questions be deleted?

No $\qquad$ Yes $\qquad$ If Yes please comment:

## Construct Validity

6. Should any survey items be deleted?

No $\qquad$ Yes $\qquad$ If Yes, please offer identify which items.
7. Do the survey items appear to be a valid measure of the purposes and practices of grading in Catholic secondary schools?
No__ Yes__ If No please comment:
8. Are there words or phrases in the survey that are unclear, ambiguous, or confusing? No__ Yes $\qquad$ If Yes please identify the words or phrases in the survey.
9. Are there any inconsistencies in wording or language in this survey?

No $\qquad$ Yes $\qquad$ If Yes please identify the words or phrases in the survey.
10. Does the survey contain items that are unnecessary to measuring grading purposes and practices? No $\qquad$ Yes $\qquad$ If Yes please identify the words or phrases in the survey.

## Face Validity

11. Are the instructions for completing the surveys clear?

No $\qquad$ Yes $\qquad$ If No, please offer suggestions.
12. Is the layout for the survey items conducive to participants completing the surveys in a reasonable time? No $\qquad$ Yes $\qquad$ If No, please offer suggestions.
13. Do you have any suggestions for improving the surveys?

No $\qquad$ Yes $\qquad$ If No, please offer suggestions.

## APPENDIX N

EMAIL TO PRINCIPAL TO PARTICIPATE IN THE RELIABILITY TEST-RETEST

Dear Principal $\qquad$
Thanks again for agreeing to let your teaching faculty serve as the test-retest reliability panel for my dissertation survey. I very much appreciate it. My study is an investigation of the grading purposes, policies, and practices of Catholic high-school teachers and of the schools in which they work.

## What the Survey Entails:

The study will entail completing a 15 -minute survey entitled, Grading Purposes, Policies, and Practices in Catholic High Schools. After 10 days, teachers will be asked to take the survey a second time to ensure the survey's reliability. The 65 -item survey will be administered electronically via Survey Monkey.

## How to Participate:

To begin this process, please do the following:

1. Reply to this email stating your permission to conduct the survey at your institution.
2. Inform your faculty that I will be conducting an online survey in the next several days. I will then email each teacher, via bulk email, with a link to the survey. If you have a group email that reaches every member of the teaching faculty and will allow me to use it, please provide me with it. Otherwise, I can access your teaching faculty's email addresses from your website. After 10 days, I will send a second link to the survey.

Please be assured that individual responses will remain completely confidential. No individual identities will be used in any reports or publications resulting from this study. I will not share individual results with personnel at your place of employment or diocesan offices. Participation in this study is strictly voluntary and, therefore, is greatly appreciated. Your voluntary participation in this study will contribute to research needed on the grading purposes, policies, and practices employed Catholic secondary schools. There is no cost to you, your teachers or your school for taking part in this study, nor will you be reimbursed for your participation in this study. If you so desire, I will be glad to send you a copy of the study upon completion. Please send your request vie email: (Subject: "Doctoral Study Request").

If you have any questions, please feel to contact me at the email address, address and / or telephone number indicated bellow. If you have further questions about this study, please feel free to contact IRBHS (Institutional Review Board for the Protection of Human Subjects) at the University of San Francisco. You may contact IRBPHS by calling (415) 422-6091 and leaving a voicemail message, by sending an email to IRBPHS@usfca.edu, or by writing to IRBPHS, Department of Psychology, University of San Francisco, 2130 Fulton Street, San Francisco, CA 94117-1080.

Thank you for your assistance.
Sincerely,
Pete Imperial
Doctoral Student, University of San Francisco
128 Dowitcher Way
San Rafael, CA
Home: 415
Cell: 415-

## APPENDIX O

COVER LETTER FOR RELIABILITY PANEL TEACHERS AND ADMINISTRATORS

From: Peter Imperial
Date: Sat, 3 Oct 2009 19:54:37-0700
To:
Subject: Reliability Survey for Doctoral Research
Dear $\qquad$ Faculty,

My name is Pete Imperial, and I am conducting a study into the practice of grading at Catholic high schools as part of my doctoral research at the University of San Francisco. I ask you to assist me in this research as part of my reliability panel. This will entail taking an online survey, then in about 10 days taking the same survey again so that I can assess the reliability of responses elicited by the survey items. The survey should take between 8 and 15 minutes to complete.

Your identity and your responses to the survey will be anonymous. Individual results will not be shared with your employer or the diocesan office. Attached to this email is an Information Sheet and a copy of the Research Subject's Bill of Rights which explain in greater detail the objectives of this study. It is my hope that this study will provide valuable insights into assisting Catholic high school teachers in the important practice of grading students.

To take the survey, simply click on the link bellow.
Link to the survey:
http://www.surveymonkey.com/s.aspx?sm=Ox5J 2b93UPmCsukN rps518A 3d 3d

Thank you very much for your assistance.

Pete Imperial

# APPENDIX P <br> SURVEY RESPONSES OF TEACHERS WHO REPORTED GRADING TO COMMUNICATE ACHIEVEMENT ONLY 

## GRADING SURVEY* FOR THE 215 TEACHERS WHO INDICATED THEY GRADE FOR ACHIEVEMENT ONLY

23. Is your system of determining students' final grades based solely on their academic achievement?

| Answer Options | Response <br> Percent | Response <br> Count |  |
| :--- | :---: | :---: | ---: |
| No | $0.0 \%$ | 0 |  |
| Yes | $100.0 \%$ | 215 | 215 |
|  | answered question | 0 |  |

1. "I report a student's final grade in order to...

| Answer Options | \#1 | \#2 | \#3 | \#4 | \#5 | \#6 | Response <br> Count |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| a. ...communicate a student's achievement <br> status to the student, parents, school <br> officials, and others." | 167 | 24 | 7 | 8 | 4 | 5 | 215 |
| b. ...provide information that a student can <br> use for self-evaluation." | 36 | 126 | 41 | 8 | 3 | 1 | 215 |
| c. ...select, identify, or group a student for <br> certain educational paths/programs." | 0 | 15 | 37 | 51 | 42 | 70 | 215 |
| d. ....motivate students to learn." | 5 | 20 | 67 | 78 | 40 | 5 | 215 |
| e. ....modify student behavior." | 1 | 2 | 10 | 31 | 68 | 103 | 215 |
| f. ... evaluate the effectiveness of <br> instructional program(s)." | 6 | 28 | 53 | 39 | 58 | 31 | 215 |

26. Do you determine students' final grades by evaluating the student's overall performance against a benchmarked set of performance descriptors?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :--- | :--- |
| No | $67.4 \%$ | 145 |
| Yes | $32.6 \%$ | 70 |
|  | answered question | $\mathbf{2 1 5}$ |
|  | skipped question | 0 |

*Exhibited items pertain to teachers' responses regarding their grading practices, grading purposes, professional background, and training.
27. Do you determine students' final grades by grading on a curve?

| Answer Options | Response <br> Percent | Response <br> Count |  |
| :--- | :---: | :---: | ---: |
| No | $92.1 \%$ | 198 |  |
| Yes | $7.9 \%$ | 17 |  |
|  | answered question | 215 |  |
|  | skipped question | 0 |  |

32. Does your assessment program include formative assessments (i.e., work designed to guide student learning and not included as part of a student's final grade)?

| Answer Options | Response <br> Percent | Response <br> Count |  |
| :--- | :---: | :---: | ---: |
| No | $35.3 \%$ | 76 |  |
| Yes | $64.7 \%$ | 139 |  |
|  | answered question | $\mathbf{2 1 5}$ | 0 |

33. For homework assignments intended as practice, do you include those homework scores in a student's final grade? (If you answer NO you will be directed immediately to \#36.)

| Answer Options | Response <br> Percent | Response <br> Count |  |
| :--- | :---: | :---: | ---: |
| No | $18.6 \%$ | 40 |  |
| Yes | $81.4 \%$ | 175 |  |
|  | answered question | 215 |  |
|  | skipped question | 0 |  |

34. Do you score practice-oriented homework for its accuracy and correctness?

Answer Options
Response
Percent $\quad$ Response Count

| No | $49.7 \%$ | 87 |  |
| :--- | ---: | ---: | ---: |
| Yes | $50.3 \%$ | 88 |  |
|  | answered question | 175 |  |
|  | skipped question | 40 |  |

35. Do you score practice-oriented homework for completion?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $5.7 \%$ | 10 |
| Yes | $94.3 \%$ | 165 |
|  | answered question | $\mathbf{1 7 5}$ |
|  | skipped question | $\mathbf{4 0}$ |

36. Do you assess notebooks or journals in determining students' grades? (If you answer NO you will be directed immediately to \#39.)

| Answer Options | Response <br> Percent | Response Count |
| :--- | :---: | :---: |
| No | $54.4 \%$ | 117 |
| Yes | $45.6 \%$ | 98 |
|  | answered question | 215 |
|  | skipped question | 0 |

37. Do you grade students' notebooks or journals for accuracy and quality?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $33.0 \%$ | 32 |
| Yes | $67.0 \%$ | 65 |

answered question 97
skipped question 118
38. Do you grade students; notebooks or journals for completion?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $6.1 \%$ | 6 |
| Yes | $93.9 \%$ | 92 |

39. Do you include EFFORT as a criterion in determining your students' grades?

| Answer Options | Response <br> Percent | Response <br> Count |  |
| :--- | :--- | :---: | ---: |
| No | $60.9 \%$ | 131 |  |
| Yes | $39.1 \%$ | 84 |  |
|  | answered question | 215 |  |
|  | skipped question | 0 |  |

40. Do you include CLASS ATTENDANCE as a criterion in determining your students' grade?

Answer Options

| Response <br> Percent | Response <br> Count |
| :---: | :---: |
| $86.0 \%$ | 185 |
| $14.0 \%$ | 30 |

answered question 215
skipped question
41. Do you include WORK HABITS as a criterion in determining your students' grade?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| NO | $76.3 \%$ | 164 |
| YES | $23.7 \%$ | 51 |

42. Do you include NEATNESS as a criterion in determining your students' grade?

| Answer Options | Response <br> Percent | Response <br> Count |  |
| :--- | :---: | :---: | ---: |
| No | $76.7 \%$ | 165 |  |
| Yes | $23.3 \%$ | 50 |  |
|  | answered question | 215 |  |
|  | skipped question | 0 |  |

43. Do you include BEHAVIOR as a criterion in determining your students' grade?

| Answer Options | Response <br> Percent | Response <br> Count |  |
| :--- | :---: | :---: | ---: |
| No | $87.0 \%$ | 187 |  |
| Yes | $13.0 \%$ | 28 |  |
|  | answered question | 215 |  |
|  | skipped question | 0 |  |

44. Do you include CLASS PARTICIPATION as a criterion in determining your students' grade? (If you answer NO you will be directed immediately to \#46.)

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $44.2 \%$ | 95 |
| Yes | $55.8 \%$ | 120 |
|  | answered question | 215 |
|  | skipped question | 0 |

45. Do you define CLASS PARTICIPATION solely as evidence of a student's achievement of course learning outcomes?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $87.4 \%$ | 104 |
| Yes | $12.6 \%$ | 15 |

46. In determining your grades, do you include as a factor the IMPROVEMENT a student has made since the start of a term?

| Answer Options | Response <br> Percent | Response Count |
| :--- | :---: | :---: |
| No | $60.0 \%$ | 129 |
| Yes | $40.0 \%$ | 86 |
|  | answered question | 215 |
|  | skipped question | 0 |

47. In determining your grades, are OBSERVATIONS you make of a student during class activities included in a student's grade? (If you answer NO you will be directed immediately to \#49.)

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| No | $66.0 \%$ | 142 |
| Yes | $34.0 \%$ | 73 |

48. Do you explicitly define OBSERVATIONS to be evidence solely of a student's achievement of course outcomes?
Answer Options
Response
Response
No
Percent Count
78.1\%

57
Yes
21.9\%

16
answered question
skipped question 142
49. Do you accept assignments submitted by students after the posted due date? (If you answer NO you will be directed immediately to \#51.

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | ---: |
| No | $17.2 \%$ | 37 |
| Yes | $82.8 \%$ | 178 |
|  | answered question | $\mathbf{2 1 5}$ |
|  | skipped question | 0 |

50. Do you reduce the grades of assignments that have been submitted after their due date?

Answer Options
No
$\begin{array}{cc}\text { Response } & \text { Response } \\ \text { Percent } & \text { Count }\end{array}$

Yes
9.0\%

16
91.0\%

162
answered question
skipped question
51. Do you allow students to submit assignments that were not submitted on the due date due to excused absences?

| Answer Options | Response <br> Percent | Response <br> Count |  |
| :--- | :---: | :---: | ---: |
| No | $1.9 \%$ | 4 |  |
| Yes | $98.1 \%$ | 211 | 215 |
|  | answered question | 0 |  |

52. Do you make EXTRA CREDIT available for students in order to provide opportunity for them to improve their grade? (If you ans wer NO you will be directed immediately to \#55.)

Answer Options

| Response <br> Percent | Response <br> Count |
| :---: | :---: |
| $55.8 \%$ | 120 |
| $44.2 \%$ | 95 |

answered question
skipped question
53. Is the extra-credit work directly reflective of the course learning outcomes?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | ---: |
| No | $10.5 \%$ | 10 |
| Yes | $89.5 \%$ | 85 |

54. Is extra credit offered equally to every student?

| Answer Options | Response <br> Percent | Response <br> Count |  |
| :--- | :--- | ---: | ---: |
| No | $10.5 \%$ | 10 |  |
| Yes | $89.5 \%$ | 85 |  |
|  | answered question | 95 |  |
|  | skipped question | $\mathbf{1 2 0}$ |  |

55. Please indicate the approximate value you place on each of the following sources of evidence in determining a student's final grade by marking the appropriate box.

| Answer Options | $\mathbf{0 \%}$ | $\mathbf{5 \%}$ | $\mathbf{1 0 \%}$ | $\mathbf{1 5 \%}$ | $\mathbf{2 0 \%}$ | $\mathbf{2 5 \%}$ | $\mathbf{3 0 \%}$ <br> or <br> More | Response <br> Count |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| a. Homework Assignments | 5 | 15 | 53 | 32 | 46 | 21 | 42 | 214 |
| b. Notebooks/Journals | 108 | 34 | 29 | 20 | 6 | 7 | 10 | 214 |
| c. Effort | 140 | 40 | 14 | 10 | 6 | 0 | 4 | 214 |
| d. Class Attendance | 180 | 19 | 5 | 1 | 3 | 1 | 5 | 214 |
| e. Work Habits | 167 | 23 | 13 | 2 | 4 | 0 | 5 | 214 |
| f. Neatness | 172 | 19 | 12 | 5 | 3 | 1 | 2 | 214 |
| g. Student Behavior | 177 | 18 | 8 | 2 | 5 | 1 | 3 | 214 |
| h. Class Participation | 98 | 44 | 26 | 18 | 13 | 4 | 11 | 214 |
| i. Improvement Over Time | 135 | 34 | 19 | 7 | 9 | 3 | 7 | 214 |
| j. Informal Observations | 147 | 29 | 16 | 4 | 10 | 3 | 5 | 214 |
|  |  |  |  |  | answered question | $\mathbf{2 1 4}$ |  |  |
|  |  |  |  |  | skipped question | $\mathbf{1}$ |  |  |

57. In which subject area do you primarily teach?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| Computers/Digital Media | $1.4 \%$ | 3 |
| English | $22.3 \%$ | 47 |
| Foreign Language | $11.4 \%$ | 24 |
| History/Social Studies | $12.8 \%$ | 27 |
| Mathematics | $21.3 \%$ | 45 |
| Physical Education | $1.9 \%$ | 4 |
| Religious Studies | $16.6 \%$ | 35 |
| Science | $16.1 \%$ | 34 |
| Visual \& Performing Arts | $3.3 \%$ | 7 |

58. For how many years have you been a teacher?

| Ans wer Options | Response <br> Percent | Response Count |
| :--- | :---: | :---: |
| 1-5 years | $19.9 \%$ | 42 |
| $6-10$ years | $19.0 \%$ | 40 |
| $11-15$ years | $12.3 \%$ | 26 |
| $16-20$ years | $14.2 \%$ | 30 |
| $21-25$ years | $9.0 \%$ | 19 |
| $26-30$ years | $6.2 \%$ | 13 |
| 31 years or more | $19.4 \%$ | 41 |
|  | answered question | $\mathbf{2 1 1}$ |
|  | skipped question | 4 |

59. What is the highest level of formal educational training you have completed?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| Bachelor's Degree in Education | $4.7 \%$ | 10 |
| Teaching Credential | $38.9 \%$ | 82 |
| Master's Degree in Education | $33.2 \%$ | 70 |
| Doctorate in Education | $1.4 \%$ | 3 |
| I have not earned a degree in education | $21.8 \%$ | 46 |

answered question
60. How recently was your highest degree earned?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | :---: |
| Within the last five years | $27.5 \%$ | 58 |
| Between 6 and 10 years ago | $19.9 \%$ | 42 |
| Between 11 and 15 years ago | $11.8 \%$ | 25 |
| Between 16 and 20 years ago | $8.1 \%$ | 17 |
| Between 21 and 25 years ago | $9.5 \%$ | 20 |
| Between 26 and 30 years ago | $9.5 \%$ | 20 |
| 31 years ago or more | $13.7 \%$ | 29 |
|  | answered question | $\mathbf{2 1 1}$ |
|  | skipped question | $\mathbf{4}$ |

61. Did your formal educational training include any courses in grading?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :---: | ---: |
| No | $62.6 \%$ | 132 |
| Yes | $37.4 \%$ | 79 |
|  | answered question | 211 |
|  | skipped question | 4 |

62. Does your school train its teachers in the practice of GRADING as part of its professional development program?

| Answer Options | Response <br> Percent | Response <br> Count |
| :--- | :--- | :---: |
| No | $74.4 \%$ | 157 |
| Yes | $25.6 \%$ | 54 |
|  | answered question | 211 |
|  | skipped question | 4 |

63. Does your school train its teachers in the practice of ASSESSMENT as part of its professional development program?

## Answer Options

Response
Response
Percent
Count
No
Yes
47.4\%

100
52.6\%

111
$\begin{array}{rr}\text { answered question } & 211 \\ \text { skipped question } & 4\end{array}$

## APPENDIX Q <br> SCHOOL "A" GRADING POLICIES

## GRADES

1. Grades represent a professional evaluation by the teacher. A teacher may use a combination of quantitative and qualitative measures in forming evaluations. Only semester grades stay on the permanent transcript.
2. Grades should never be used as a threat. Likewise, a student's grade should never be altered as a punishment for misbehavior. Grades represent what a student has achieved academically - and that's all. Grades are just one means of indicating how a student is doing.
3. Be cautious in giving low grades for motivational reasons. This sometimes helps; however, it also sometimes destroys the motivation of a student who has really been trying. Do not destroy incentive.
4. Missed Tests: A missed mid-term or final exam may result in an ' $F^{\prime}$, unless the student has been specifically excused. Teachers must use their own norms for other missed exams and assignments. If the student has missed class for a school-related activity, the teacher should give him a reasonable opportunity to make up this work. Teachers should guard against putting a student in a situation where he no longer has a reasonable chance.
5. 'I' (for Incomplete) should be filled in for students who cannot be graded for reasons of attendance or missed assignments; this grade must receive prior approval from the Academic Assistant Principal. When an Incomplete grade is given, the teacher should work with the student, his parents, and his counselor to determine a written schedule of when he work will be completed.
6. Meaning of Grades: Grades are a form of shorthand, i.e., they are a capsule letter from the teacher to parents, colleges, and even future employers in which a judgment is expressed regarding a student's past performance in a particular subject. A G.P.A. is like a summary of an entire file of letters.
7. Norms: N.B. Plus (+) at the top level of a judgmental or grading category. Minus (-) at the lower level of a judgmental or grading category. Please note: minus (-) and plus (+) is not figured into the academic G.P.A.
' A ' = has done very well and should do very well.
' $B^{\prime}=$ has done reasonably well and can be recommended for eventual college admission.
'C' = Non-recommending, questionable quality of work.
' $\mathrm{D}^{\prime}=$ Definitely deficient. A very damaging grade.
' $\mathrm{F}^{\prime}=$ No achievement. Does not belong in the course. No credit.
8. At the end of the semester, teachers should always give an actual grade. An 'I' (Incomplete) should never be given as a final grade without approval from the Academic Assistant Principal. An incomplete may only stand for a period of six weeks, after which point the grade becomes an " $F$ ", unless prior approval has been granted by the Academic Assistant Principal.
9. Grade Changes: Teachers may change a final grade only if there was a computational error. This is to avoid the excessive badgering of teachers and transcripts whose appearances give rise to grave questions about the stability of our grading procedures. If an error of computation is alleged, the teacher must bring his/her grade book to support the allegation. All grade changes must be initiated by the teacher and approved by the Academic Assistant Principal. All grade changes should occur within three weeks of the distribution of final grade.
10. Record of Grades: Teachers should keep grade records in their secured personal files for a minimum of 7 years in order to protect one's self in the event of questions or concerns. Similarly, course outlines and lesson plans should be kept for the same time.

## APPENDIX R

## SCHOOL "B" GRADING POLICIES

## Grading Policy

The primary purpose of evaluation is to determine the extent to which a student has achieved success in terms of course objectives. This level of achievement is to be determined through a systematic process and communicated to the students and his/her parents in the form of a letter grade.

While grades do not normally reflect behavior, teachers are permitted to make a participation grade part of the overall grade and to deduct points from this grade when the student disrupts the academic flow of the class or fails to bring needed materials to class. Grades also serve a diagnostic role. They may be the basis for recommending remedial work, evaluating the success of a curriculum, or determining those students ready for an accelerated program.

Grades determine the extent to which a student meets course objectives. Therefore it is the teacher's responsibility to state clearly those objectives at the beginning of the semester, in writing. The teacher defines the conditions that must be met by the student to receive a passing grade and what weight is assigned to teach component of the final grade (test, reports, homework, class performance, etc.) Course work assessment is an essential aspect of every course. Homework is assigned on a nightly basis. Frequent assessment reduces subjectivity in grading.

When parents are concerned about the circumstances in which a particular grade was given, they should first talk directly to the teacher involved. If talking to the teacher does not clarify the situation to the parent's satisfaction, then the counselor should be contacted. If this does not clarify the situation to the parent's satisfaction, the vice principal should be contacted. If this still does not clarify the situation, the principal should be contacted. In order to appeal a grade, students must contact the Registrar within two weeks of receiving their grades.

In order to achieve satisfactory results and maintain a 2.0 grade point average, a minimum of two hours of homework are required of each student each evening preceding a school day (Sunday through Thursday). This should be dedicated time free of distractions and interruptions. This amount of time is recognized as a minimum and should include completion of all written and reading assignments, reading and review of class notes, looking ahead to future chapters, and, when all else is completed, reading from a book of choice.

## Grading Scale

Letter Grade
A

| \% Equivalent | Grade Point Value | Designation |
| :--- | :---: | :--- |
| $90-100$ | 4.0 | Outstanding |
| $80-89$ | 3.0 | Good |
| $70-79$ | 2.0 | Satisfactory |
| $60-69$ | 1.0 | Unsatisfactory |
| Below 60 | 0.0 | Failure |
| Passing in a Pass/Fail Course |  |  |
| Incomplete | 0.0 |  |

NOTE:

1. Students must demonstrate minimum proficiency to progress to the next sequential math or foreign language.

- Minimum proficiency for math is a grade of C or better in the current course and a passing score on the readiness test for the next course.
- For Spanish progression, a grade of C or better is required in Spanish 1 to progress to Spanish 2. To progress to Spanish 3 students must earn a B or better in Spanish 2

3. Students are permitted to repeat only one sequential course, i.e. Spanish or math. All other courses must be made up during summer school.

Teachers may use a plus (+) or a minus (-) on the report card grade to indicate the strength of the letter grade, but the plus or minus carries no additional point value in determining grade point average.

Students will also receive a conduct grade for each class:

- $S=$ Satisfactory - Student is polite and attentive in class, participates positively and follows classroom rules
- $\mathrm{N}=$ Needs Improvement - Student is occasionally inattentive and/or disruptive in class; teacher has had to address student behavior on more than one occasion.
- $\mathrm{U}=$ Unsatisfactory - Student is continually inattentive, impolite and/or disruptive in class; behavior affects learning of other students; parents have been contacted regarding this behavior.

The semester grade appears on the report card and is the only grade recorded on the student's permanent record. The quarter grades indicate the progress of the student midpoint in the semester.

## Computing of Quarter \& Semester Grades

Grades are computed in both a quarterly and semester basis. Quarter grades are computed based on various categories and weights. An example might be: $40 \%$ tests, $20 \%$ quizzes, $20 \%$ homework, $20 \%$ class participation/in-class work totaling $100 \%$ of the Quarter grade. This grade is mailed out at the end of Quarter 1 and 3 as a "progress report" and do not appear on the official transcripts.

Semester 1 grades are computed with the following formula:
40\% Quarter 1 grade
40\% Quarter 2 grade
20\% Semester 1 Final Exam
Semester 2 grades are computed with the following formula:
40\% Quarter 3 grade
40\% Quarter 4 grade
20\% Semester 2 Final Exam
Semester grades are placed on the student's official transcript.

## Grade change policy

A student requesting a change in his grade is required to first see the instructor. If he/she feels
intervention is necessary, he/she to submit a formal request to the Vice Principal within two weeks of the date that grades were released to students. Documentation should include any discrepancies in grades, corrected tests, quizzes, homework, essays, etc., and a written statement as to why he feels a grade change is necessary. The student will be notified in writing as to the outcome after meeting with the instructor and the VicePrincipal, but no change will be effected after one month's time from the end of a grading period.

## Grade point average

Grade points are awarded according to a four point scale: $\mathrm{A}=4$ points; $\mathrm{B}=3$ points; $\mathrm{C}=$ 2 points; $D=1$ point; $F=0$ points. When calculating an applicant's grade point average, the University of California, the California State University, and most institutions of higher learning award an extra grade point for an A, B, or C grade in approved advanced placement and honors courses taken in the junior and senior years.

APPENDIX S
SCHOOL "C" GRADING POLICIES

## Grading Policy

It is the goal of every teacher to design lessons that provide students many opportunities to learn the content of each course. Every effort will be made to create opportunities for success in all academic courses.

When grading a student's performance, teachers consider each of the following: initiative, application of facts and principles, effort, accuracy, pride in work, achievement on tests, class preparation, meeting deadlines, attentive listening, and participation.

The percentage grading range used is as follows:
$100 \%-90 \%$ "A" Grade Range
$89 \%-80 \%$ "B" Grade Range
$79 \%-70 \%$ "C" Grade Range
$69 \%-60 \%$ "D" Grade Range
$59 \%-0 \%$ "F" Grade Range
"A" grade signifies superior achievement and contribution in the class.
" B " grade signifies above-average achievement and contribution in class.
"C" grade signifies average achievement and contribution in class "D" grade signifies below-average achievement and contribution in the class. " F " grade signifies lack of achievement and denial of academic credit.

Pass/Fail status is used only in designated curricular programs.
An "I" signifies a temporary grade of Incomplete. The student has 15 calendar days from the last day of the term to complete all work unless additional time is deemed appropriate by the Administration. Failure to make up the Incomplete within the designated time period will result in no credit for all work missed and will be reflected in the final grade.

Incompletes will be permitted in the following cases:
a. Prolonged illness substantiated with documentation
b. Appearance in court
c. Quarantine
d. Attendance at a funeral of a family member

For eligibility reasons, an Incomplete is equivalent to an "F". Refer to the Academic Eligibility Section.

Absences occurring on a day when a major project/paper with at least one week advance notice of due date or during quarter or semester finals, will only be excused if the absence was due to one of the following:
a. Illness accompanied by a doctor's note specifying the diagnosis and prognosis and the exact date of treatment.
b. Attendance at the funeral of a family member.
c. Unpaid financial obligations

Failure to make-up Incompletes within fifteen calendar days will result in no credit for all work missed and will be reflected in the final grade.


[^0]:    * 217 answered "No" to \#33. One marked "Yes" to \# 47 but did not respond to \#48.)

[^1]:    *50 administrators responded to this item. Some opted not to respond to some items.

[^2]:    *411 Respondents

