

**Improving Parent Involvement in Secondary Schools through Communication
Technology**

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Abstract

Parental involvement can have a tremendous effect on the academic achievement of students. Technology has given parents and teachers the opportunity to explore new ways of communicating. New technologies have the power to improve the parent-teacher relationship by providing easy, efficient, and effective methods of transferring information. Parents that know what is going on in the classroom can more effectively support their children in learning and achieving in all aspects of their education. Specifically, over the past few years, online gradebooks have become widely used in many school districts, giving parents and students 24- hour access to their grades and information about upcoming assignments. The results of this study found that if given access to information through an online gradebook, most parents will use the opportunity to communicate to their children about their grades and in many cases, will prompt communication with a teacher as well. Nearly all parents surveyed had used the online gradebook and most parents used the online gradebook system at least weekly. Simply having access to and using an online gradebook changed the nature and frequency of communication between parents and teachers.

Parental involvement can have a tremendous effect on the academic achievement of students. The importance of communication between parents and teachers has been studied and stressed for many years as shown by research conducted decades ago by Bronfenbrenner (1979). Bronfenbrenner found that as schools have become larger and further away from neighborhoods where the students are living, they have become “alien” to the students and parents. Teachers in schools are also often well-educated and do not live in the communities that they work, increasing the need for meaningful and frequent communication. He states that:

The school has become, over the past two decades, one of the most potent breeding grounds of alienation in American society. In my view, it is the alienation that underlies the progressive decline in achievement test scores that has been recorded over the past dozen years both for the college bound and for the general population of students at the elementary and secondary levels. (p. 848)

Fan and Chen (2001) found a correlation of 30% when studying the link between parental involvement and academic achievement. Epstein (2008) found similar results that showed “more students earn higher grades in English and math, improve their reading and writing skills, complete more course credits, set higher aspirations, have better attendance, come to class more prepared to learn, and have fewer behavior problems...” when parents are involved (p. 10). Ferrara (2009) found that the most often reason for lack of parental involvement was “parents’ work schedules or other events prevented parents from participating” (p. 134).

Unfortunately, communication initiated by teachers usually occurs only when the teacher feels there is a difficulty with a student. Blackerby (2005) found that teachers will

find the time to communicate with parents of students that have an academic or behavior plan in place, but the rest of the parents are often not contacted and without a school-wide plan to reach these parents, “schools may unintentionally isolate the students’ parents” (p. 6). Ferrera (2009) discussed similar ideas in her study that parents tended to be reluctant to call schools, but would call “more often if their children were in trouble of failing their subjects” (p. 133).

Technology has given parents and teachers the opportunity to explore new ways of communicating. New technologies have the power to better the parent-teacher relationship by providing easy, efficient, and effective methods of transferring information (Lunts, 2003). Parents that know what is going on in the classroom can more effectively support their children in learning and achieving in all aspects of their education.

The majority of the communication that teachers and parents typically engage in is purely informational, such as the reporting of grades or attendance. Traditionally teachers provide four marking period grades per year to parents; occasionally an interim is also provided at a halfway point in each marking period. Current methods of printing paper copies and mailing each home (or sending it with the student and hoping that it reaches parents) is both expensive and untimely because once the information reaches a parent, it is commonly two weeks old and no longer relevant. Over the past few years, online gradebooks have become widely used in many school districts, giving parents and students 24-hour access to their grades and information about upcoming assignments. Parents are no longer left in the dark about their students’ grades, only to be surprised eight times a year when interims and report cards are sent home.

Digital Communication

Online gradebooks have a variety of features depending on the system, but all systems allow teachers to create assignments that have distinct dates for when an assignment was assigned and due. The information that the teacher inputs is transmitted to the parent and student so grades can be seen in real time, eliminating the delay in information that a paper report card can sometimes have. Beverly points out that “paper report cards take a week to 10-days to process and mail... and report cards [can] mysteriously ‘disappear’ in the mail” (2003, p. 16). The online gradebook system also allows for easy and accurate calculations within the system that teachers do not have to set up on their own. The software provides options for calculating with points, percentages, or a combination of both.

Parents and students can easily track and interpret the information in a gradebook. For example, they can see if a student in a class is doing poorly because he or she does not complete homework or because he or she struggles with assessments. These two situations could amount to the same poor grade but would require completely different strategies for obtaining an improved grade. Being able to see the actual gradebook with different assignments and grades allows for clarity for both students and parents; a letter grade at the end of a marking period gives little information, with virtually no way to improve the grade once it has been recorded.

While online gradebooks provide a substantial amount of previously unavailable insight into the classroom for parents, grades in a gradebook are simply a numerical representation of the student. While there are options in the gradebook for adding comments for each assignment, much more information about the student should be

communicated to the parents. Furthermore, an online gradebook is only a one-way communication tool where all information is provided by the teacher and parents can only receive this information and interpret it on their own. Beverly (2003) stresses that parents should not use an online gradebook to spy on their children, but rather, should use it to open communication with children about what happens in school.

The option for communication from school to home is email, and conveniently, email has become a ubiquitous part of nearly everyone's lives where virtually everyone has an email address or can create one for free. Email can open up the two-way conversation between parents and teachers that needs to occur for many students to succeed. Teachers can use email in a variety of ways that range from general group emails that simply inform the parents about general activities in the classroom to personal emails about a specific student on a weekly basis. Nearly all school districts provide email addresses for teachers to be used professionally so that teachers do not need to use a personal email address and the email address can be posted on a school website to be easily found. Davenport and Eib (2004) point out that emails can be translated into virtually any language through the internet for students and parents that are English language learners to reach a group that is most often left out of school to home communication.

Another benefit to email is its asynchronous nature which allows for parents and teachers to communicate without having to be available at the same time. Parents and teachers can often miss each others' telephone calls for several days before getting a chance to talk to each other, which can become useless with time-sensitive information. Both parents and teachers can become frustrated and give up on communicating. Lunts says that email can be a solution to this problem:

Well organized, email messages sent by the school or a teacher can reach a vast number of parents. Parents can also respond at a convenient time, not necessarily when the school operates. If parents find that their messages are read and responded to in a timely manner, they might choose to use this type of communication more frequently. (2003, p. 4)

Thompson (2008) studied the characteristics of emails between parents and teachers including common topics and the frequency of emails. The most common topic, by far, was grades and how students could improve. Thompson explains, "Parents and teachers indicated that emails worked most effectively to communicate about grades because the messages involved simple, concrete information" (2008, p. 208). A topic discussed relatively less was the behavior of students and Thompson found that "teachers were extremely hesitant to use email to communicate about student behavior because of the sensitive and sometimes complex nature of this communication" (2008, p 209). Minor infractions were often reported in email such as using a cell phone during class which is against the school rules, but for more serious issues both parents and teachers preferred oral communication "to better regular the tone of the discussion and to elaborate on more complex issues" (2008, pg 209). The biggest exception to this is when a behavior issues has already been discussed orally and email is used to simply follow up on ongoing behavior.

Unfortunately, there are also many complaints about email as a form of communication. The asynchronous nature of email can be both its best and worst quality because some conversations about students simply need quick interaction and feedback that can only be found in a synchronous conversation. Lunts (2003) provides a solution to this problem that both solves the problem of the asynchronicity of email and the difficulty

of having parents and teachers in the same place at the same time to have a face to face discussion. She suggests the use of chat rooms through a school/classroom website which also allows a discussion of “many-to-many” at designated times during a month.

Even with a synchronous form of communication like chat rooms, there is still communication that can be lost when the conversation is not face to face. When the internet was first becoming popular as a form of communication Wilkinson and Buboltz (1998) found that social cues that were normal parts of face-to-face communication such as facial expressions, gestures, and tone of voice, were not able to be conveyed through email and other electronic media.

Parental Involvement

Rogers and Wright (2008) found that the main reasons that parents did not use technology to communicate with schools was that they either did not have the technology at home or they did not have the skills needed to use the technology to communicate. While there are many programs in place to help put computers and appropriate training into schools, without the same programs to help parents and families at home, technology-based communication will never be able to expand and become effective. As Rogers and Wright point out, “technology has been heralded as a tool that can provide new avenues for communication, but studies show that parents and teachers are not embracing them” (2008, p. 4-5).

Email or online gradebooks provide instant feedback to parents if, and only if, both teachers and parents are proactive in their usage of these technologies. According to the U.S. Census Bureau (2009), 76.7% of households have access to internet as of October 2009, as compared to only 41.5% in 2000. Furthermore, Wells and Lewis (2006) found

that 94% of public schools had internet access in 2005 after steady increases over the past ten years. The majority of both teachers and parents are able to partake in some form of computer-mediated communication (CMC) if only to receive the same information they would have in a traditional way, with a substantially lower cost and more timeliness.

According to research conducted by Rogers and Wright (2008), parents and teachers sometimes felt that the other should be doing more to open the lines of communication and that they, themselves were reaching out to the other. This apparent disconnect could come from the fact that teachers strongly prefer to use email for communication while parents prefer a phone call, newsletter, or note.

Anderson and Minke (2007) conducted a study to analyze the nature of parents' involvement in their children's education. They categorized involvement into two categories: involvement at home, such as helping with homework, or involvement at school, such as attending meetings at the school. They found that "parents make an initial decision to be involved in their children's education according to their beliefs (i.e., role construction, sense of efficacy) and the general opportunities and demands for involvement from the school and their children" (2008, p. 312). They define role construction to mean what parents feel they are expected to do as a parent for their children and the sense of efficacy as the parents' belief that what they do will have a positive effect on their children's learning.

Using these parameters, Anderson and Minke (2007) found that when parents are specifically invited to participate in any school-related activity, their perception of their role in the education of their child changes both at school and at home. They feel that they now have an effect on their child's learning and will strive to participate in a positive way.

Though Anderson and Minke were not able to determine direct causation, the correlation is enough to warrant more research.

Walker, Wilkins, Dallaire, Sandler, and Hoover-Dempsey (2005) found that the perception of an invitation can be just as important as the invitation itself. If the school is able to “convey to the parent that his or her involvement is welcome and useful in supporting student learning and success” then this will “influence parent’s decisions to become involved” (2005, p. 94). Email and other technology-based communication such as a school website can be an easy and effective way to reach out to parents. Even taking something that is traditionally not technology-based such as a newsletter that is sent home with the students to the parents can be made into something electronic to help ensure that parents actually receive the information and can be easily translated for parents that do not speak English as a primary language.

Rogers and Wright (2008) point out that as students grow older, parents must make the same transitions that their students must from elementary school where contact is limited to a single teacher who really knows the student to middle school where there are now several teachers that only interact with the student for a short amount of time in the day. Demands increase for both parents and teachers and it becomes even more important for one of them to initiate contact. CMC allows parents to send a single email to all of the student’s teachers to ask how their student is doing instead of attempting to call each teacher separately. Of course the reverse is also true for a teacher if the teacher can determine an easy and effective way to gather email addresses from parents early in the year.

Anderson and Minke (2007) found that parental involvement is defined differently by parents and teachers. Teachers tend to define parental involvement as actual contact, whether it be face-to-face or technology-based, because they are able to acknowledge it. However, parental involvement can also be unknown to teachers, because it takes place in the home. Parents who have difficult work schedules may not seem as involved since they are not able to attend events like back-to-school night, but in reality could be involved with helping students with school work at home.

Parents who actively use the online gradebook to monitor their student's academic progress may not often contact teachers because they feel that they already have all the information that they require. Unfortunately, this lack of communication between parents and teachers may be perceived as a lack of involvement by teachers when the reality is that they are simply unaware of it. The reverse can also be true, where teachers feel that because they are posting their grades online that further communication may not be necessary.

Case Study Discussion

A case study was conducted to compare the difference in parent response to traditional methods of communication and to electronic methods of communication. Participants included parents who have a child in the 9th grade. The researchers sought to determine if electronic communication increases parental involvement and, if so, why. Parents were asked to participate in a survey about their use of a district online gradebook.

A survey was sent to approximately 400 parents of students in the 9th grade of a single suburban high school. There are nearly 1600 students enrolled in the high school with 15.5% of the students enrolled in free or reduced lunch. Parents of students in the 9th

grade were mailed a survey about their use of the online gradebook system. The primary purpose of the survey was to determine if parents had initiated contact and communicated with a teacher because of information that was posted on the online gradebook. The nature of the survey also allowed a wide range of data to be gathered about related topics, such as how parents choose to communicate with teachers and if parents were aware of all of the features of the online gradebook system.

The responses to the survey were designed to determine if parents know about the online gradebook system and what reasons there may be for parents to not use the system. The remainder of the data collected from the survey allowed the researchers to determine if parent involvement has increased from the online gradebook system.

The researchers mailed 395 surveys and received 89 responses (23%), 48 (54%) from parents or guardians of a male student and 41 (46%) from parents or guardians of a female student. Eighteen (20%) of the responses were from single-parent families, while 71 (80%) of the responses were from double-parent families. This is fairly consistent with the known demographics of the school population. The majority of families, 72 (83%), had been living in the district for four or more years and because the online gradebook system became fully operational three years prior, most respondents would have experienced the school district without this technology for at least one year.

The results of the survey showed that the majority of respondents 70 (85%) use email as their primary form of communication with teachers, with a small percentage still using the telephone, 7 (9%). One of the respondents did comment that he or she preferred to use the telephone but primarily used email at the request of teachers.

An overwhelming number, 87 (98%) of the respondents knew about the online gradebook system. Out of the 87 respondents that were aware of the online gradebook system, 80 (90%) had logged onto the system before. Out of all nine respondents that had not logged on before, 5 (56%) said that they did not feel the need to use the online gradebook system, 2 (22%) did not know how to log onto the system, 1 (11%) did not have a username or password, and 1 (11%) did not have a chance to log on yet. None of the responses stated that they did not have consistent access to the internet.

Parents or guardians who had used the online gradebook system were then asked about the frequency of their use and how their use may have affected their communication with teachers. Sixty-five percent of parents or guardians log into the online gradebook system daily or weekly, out of the 80 that have ever logged in. Table 1 indicates the reported average usage.

Table 1: Reported Use of Online Gradebook System

Daily	Weekly	Biweekly	Monthly	Rarely
20	32	8	11	9
25%	40%	10%	14%	11%

Parents were asked if a poor grade or a “missing” on an assignment had ever prompted them to contact the teacher. To this question, 58% responded that they had, while 42% responded that they had not. The respondents that reported contacting a teacher about a poor grade were asked about the frequency of contact because of the poor grade. Out of the parents or guardians that had contacted a teacher regarding a poor grade on an assignment, 73% stated that they only contacted the teacher if the student’s overall grade was poor, while 13% stated that

they only contacted the teacher if the poor grade was on a major assignment. Finally, 15% stated that they contacted the teacher every time there was a poor grade posted.

Another important feature of the online gradebook system is that parents can sign up for “missing assignment” alerts that automatically send an email to the parent if an assignment is marked missing. Parents were asked if they were aware of this feature and if so, if they used it. Table 2 indicates that the majority of parents were unaware of this feature. Table 3 demonstrates that parents, who are aware of the feature, generally use it.

Table 2: Are Parents or Guardians Aware of the Missing Assignment Alert?

Yes	No
30	52
37%	63%

Table 3: Do Parents or Guardians Use the Missing Assignment Alert Feature?

Yes	No
22	7
76%	24%

Comparing the data by gender, the researchers can make comparisons in the use of the online gradebook and subsequent contact with teachers. Figure 1 shows that parents or guardians of male students were more likely to check the online gradebook system more frequently with 69% responding that they checked at least weekly, while only 60% of parents or guardians of female students did so.

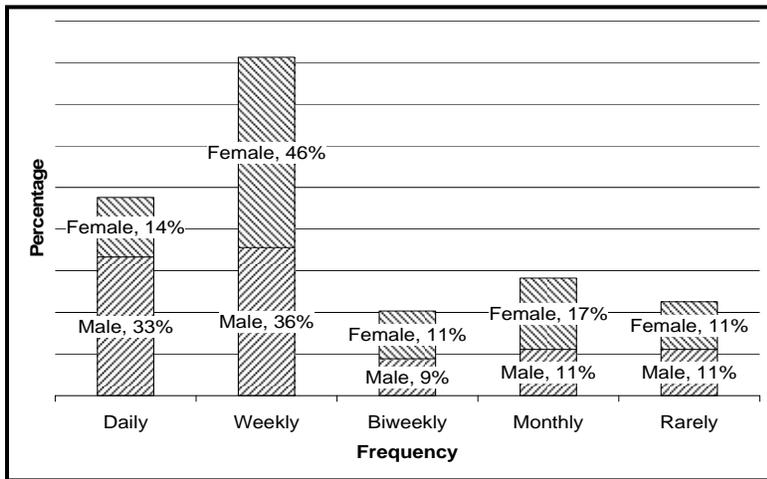


Figure 1: Comparing frequency of gradebook use by parents and guardians based on gender of student

This trend continued as parents or guardians were asked if they contacted teachers about grades posted online. About half of parents or guardians of female students had contacted a teacher, while 65% of parents or guardians of male students had. Figure 2 shows that parents or guardians with a male student were more likely to contact the teacher about a poor grade.

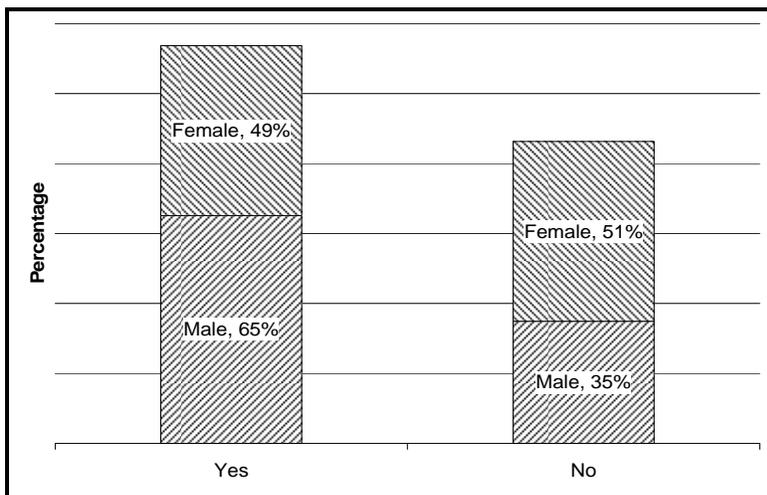


Figure 2. Comparing parent or guardian contact based on gender of student

Finally, Figure 3 shows that out of parents or guardians that know about the “missing assignment” alert, 93% of parents or guardians of male students used the feature, while only 57% of parents or guardians of female students did. This clearly shows a trend of parental involvement based on the gender of the student. Further study is warranted in this area.

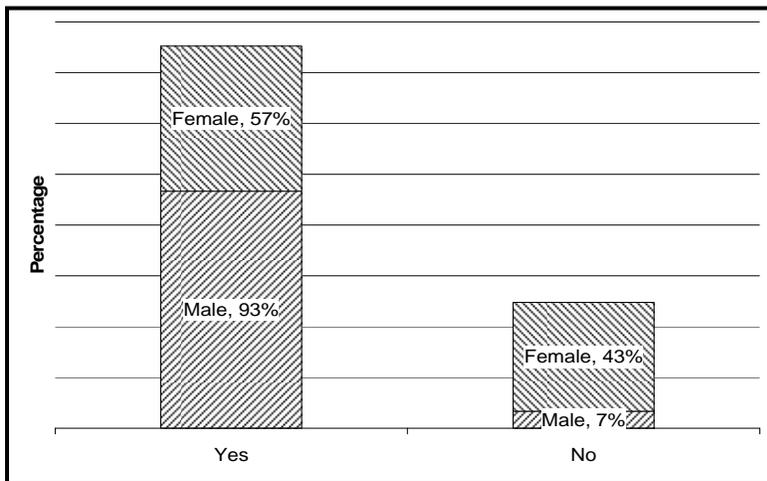


Figure 3. Comparing the use of the missing assignment alert based on gender of student

Will Parent Involvement Increase with Digital Communication?

If parents are aware of and use the online gradebook system, they have increased involvement in their children’s learning immediately. Logging into the system affords parents an opportunity to access grades that were previously only available four times a year with a report card. Sixty-five percent of parents who use the online gradebook system log on daily or weekly. With about 40-weeks in an average school year, this effectively increases the frequency of grade access ten-fold. Even if parents do not use this information to contact a teacher, simply knowing information about their children’s grades allows more active involvement in the students’ academics. Thompson (2008) also found that the fact that students know that their parents have easy access to their grades,

whether it be through an online gradebook system or emails between parents and teachers, can drastically improve their effort in school.

Online gradebooks also allow for better understanding of how an overall grade is earned over the course of a marking period or entire school year. Traditional report cards only show final averages, but they do not show specific strengths and weaknesses of a student. A student earning a C in a class could be a student that does well on quizzes and tests in class but does not complete any work outside of school. Likewise, a student could do poorly on quizzes and tests, but earn a C from other work for the class. Both of these students would need to focus on vastly different skills to improve their grades, but with only a letter grade, a parent or student would not be able to determine what needs to be done. While this is not guaranteed, a parent who has access to this information could be more likely to start a conversation with his or her child about academics.

The online gradebook system also has a feature that automatically sends an email notification to parents when an assignment is marked as missing by a teacher. Simply using this feature shows an increase in parent involvement because it automatically reaches out to the parent. A surprisingly large percentage, 63% of parents or guardians, are not aware of the “missing assignment” alert feature, but out of the parents or guardians who are aware of it, 76%, use the feature. This leads the researchers to believe that if parents were aware of the “missing assignment” alert feature, most would use it.

Will Digital Communication Such as an Online Gradebook Prompt Parents to Initiate Communication with Teachers?

The researchers found that 58% of parents who use the online gradebook system have contacted a teacher because of a grade that was posted. This shows that if parents are given access to the information, many of them will use it to initiate contact with a teacher. Benoit (2008) found similar information in her study where parents who were sent progress reports felt more involved with their child's academics and would, therefore, be more likely to initiate and continue conversations with teachers.

Of the parents who had contacted a teacher because of a grade that was posted, 15% of these parents contacted the teacher every time a poor grade was posted and 13% contacted the teacher if the poor grade was a major assignment, showing a definite increase in parent-teacher communication. Even the remaining 73% who only contacted a teacher if an overall grade was poor communicated with teachers more often than they would have if this information had not been available. Thompson (2008) found that grades were the most common reason that parents emailed a teacher. This correlates to the information collected by the researchers; parents were prompted to contact a teacher because of the information they were able to find through the online gradebook system.

Thompson (2008) also found that parents tended to initiate communication with teachers because they were responsible for fewer children. Though they recognized that it was unreasonable for a teacher to contact every parent for every poor or missing assignment, they did wish that teachers would initiate contact more often. Similarly, the researcher found that the online gradebook allows for that information to be available to a parent, essentially initiating a conversation.

Which Form of Communication is Most Preferred by Parents?

An overwhelming 85% of parents responded that email is the most common method of communication used to contact teachers. With free and easily available email services, this is not a surprise, especially because teachers are provided with an email address through the school district. This allows for both parents and teachers to communicate at any time of day without teachers having to give a personal phone number to students or parents.

Many parents may use email primarily because they prefer it, but the researchers found that several parents specified on the survey that they preferred a telephone call, but they used email because it was the teacher's preference. Furthermore, teachers may not have explicitly stated that email was preferred, but parents found a better and faster response to an email because each party could respond when they had the time. Also, if a parent was already online to check the grades, then it would be easier to simply email the teacher than to find the telephone extension and leave a message. This coincides with the study conducted by Rogers and Wright (2008). They found that nearly all teachers preferred email, while most parents preferred more traditional methods of communication because they seemed to be more personal.

Are Parents Aware of the Online Gradebook System and if so, What Other Factors Might Deter Them from Using It?

Ninety-eight percent of parents who responded to the survey were aware of the online gradebook system, which was expected as the online gradebook has been in use for two school years. But out of that 98%, 8% had never logged into the system. The most common reason for not using the online gradebook system was that parents did not feel the need to use it because they trusted their child and felt that it was their child's

responsibility to keep track of his or her grades. One participant even stated that “If I am always checking up to see if my child did his/her work, he/she won’t learn responsibility or consequence.” Thompson (2008) found that while most students had a negative view of communication between parents and teachers, the ones who had a positive response often did because it passed the burden of responsibility to the parent.

The second most common response was that the parent did not know how to log onto the system or did not have a username or password. This shows a breakdown in the communication process from the school to the home. While it is possible that the school inadvertently missed these particular families when sending home information, it is more likely that the information was somehow lost, intercepted, or misunderstood by the parent.

Finally, no parents responded that they did not have consistent access to internet. While this does not mean that every family has consistent access to the internet in the entire school district, it is safe to assume the responses to the survey are a representation of the district and that the percentage of families without internet is relatively low. This is in contrast to what Rogers and Wright (2008) found in their study. They found that parents were not using technology based methods of communication because they did not have access to the internet. This can be explained by the difference in socio-economic status of the families surveyed for each study.

Summary

The purpose of this study was to determine the effects of the online gradebook system on communication between parents or guardians and teachers. The inherent nature of the online gradebook system leads itself to opening conversations within the family about academics and has been shown to extend that conversation to the school as

well. While some parents still elect to not use the technology that is being offered to them, the parents who do have increased communication with teachers and have also become more involved in their child's education. Not all parents are aware of all of the features of the online gradebook system such as the "missing assignment" alert, but most who do know about it use it.

After completing the study, the researchers propose the following recommendations:

For Administrators

- Provide more professional development throughout the entire year when implementing new technology so teachers have an opportunity to learn how to use the system over time
- Provide parents with workshops to assist them in using the online gradebook system and the features it offers.
- Create school-wide standards for grade and assignment posting and using the online gradebook to create uniformity and common expectation.

For Teachers

- Use the online gradebook consistently and communicate habits to parents such as always updating the grades at certain time intervals.
- Do not replace effective communication with the online gradebook; rather, use it to enhance communication.
- Encourage parents and students to check the online gradebook frequently by providing incentives such as extra credit.

- Update the online gradebook to reflect present and future assignments, not just graded assignments, so it can be used to plan ahead.

If parents simply log into the online gradebook system, then they have already increased their involvement in their child's learning. Having the information readily available is the first motivator to opening discussion both at home and school. The researchers found that more than half of the parents, if given access to academic information, will initiate communication with a teacher, though the amount of communication varied quite a bit. Similar to the information found in previous studies, parents preferred online communication for straightforward information, such as grades but continued to prefer more personal methods of communication for sensitive issues, such as behavior or learning issues.

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