The Affect of the Implementation of a Ninth Grade Academy Program on Student Achievement and Behavior

Eric Primrose
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Dedication

This paper is dedicated to my wife, Kara Primrose. Her unfailing support and encouragement has helped to drive the completion of this project. She endured long nights, frustration and sacrifice to motivate me towards the end goal of the completion of my research. Without her help, this paper could not have been written.
Acknowledgements

The author would like to acknowledge the hard working faculty and administrators of Waterloo High School. Without their hard work, the new Ninth Grade Academy at Waterloo would not have been the success it so clearly is. Their support and input over the course of the school year has also helped to make this action research possible. Their continued enthusiasm for the achievement of ninth grade students at Waterloo High School promises to enhance the success of the Ninth Grade Academy for years to come.
Table of Contents

Abstract pg. 2
Dedication pg. 3
Acknowledgments pg. 4
List of Tables pg. 6
Introduction pg. 7

*High School transition programs*

*The Ninth Grade Academy at Waterloo High School*

Literature review pg. 11

*The high school transition* pg. 11

*Student's perceptions of high school* pg. 14

*Ways to prepare students for the ninth grade transition* pg. 16

*Academic strategies used to combat transition issues* pg. 19

*Social strategies used to combat transition issues* pg. 20

*Training and support of faculty and staff involved in a transition program* pg. 22

Methodology pg. 26
Results pg. 29
Discussion pg. 36
Conclusion pg. 39
List of Tables

Table 1:
Overall Grade comparisons pg. 30

Table 2:
Laboratory reports #9-#12 grades compared between 2006-2007 pg. 32
and 2007-2008

Table 3:
Comparison of the number of discipline referrals and detentions between the pg. 34
2006-2007 and 2007-2008 school years-second marking period
The Affect of the Implementation of a Ninth Grade Academy Program on Student Achievement and Behavior.

High school is a difficult time for children. There are a vast number of things to distract teenagers, including academic issues, changes in social interactions, and athletic competition. The expectations of teachers, administrators, and parents are much greater as student's transition to high school, and most students have expectations and apprehension about the transition. High school students typically have more assignments, and peer relation become increasingly complex. Further, the high school is a more anonymous setting than is the middle school (Gifford & Dean, 1990).

Many students do not know what to expect of high school, and find that their expectations and apprehensions do not match the real experience. Many students change roles, such as no longer being among the top athletes or scholars. Due to changing roles and new stressors, students loose self-esteem, and therefore their ability to perform at higher levels academically and socially (Wigfield and Eccles, 1991). Research has also shown that participation in extracurricular activities significantly declines in the first year of high school (Gifford & Dean, 1990). Most students are concerned about how they will be treated by older students, and procedural issues such as finding lockers, offices, and classrooms, adjusting to the daily schedule, and getting to class on time. What they do not realize is that these issues are a very small part of the high school transition, and will cease to be issues after the first few weeks of school.

The absence rate of students tends to increase, to lower grades and may eventually lead to dropping out of school. In terms of tracking, placement in a class that requires too much or too little ability may cause the student to lose interest, cut class, and
consequently earn lower grades (Legters & McDill, 1994). Many students gave little thought to the real issues that confront ninth graders, such as effective time management, the increased academic rigor of high school classes, and the intense pressure of the implications of failure or success in academics at the high school level.

*High School transition programs*

Moving to a new school is an ecological transition encompassing changes in both a student’s setting and niche. Students are faced with a new physical environment, new teachers with different expectations, and often new peers. The size of the high school, as compared the previous school, contributes to students' ability to adapt. As a result, students may feel lost and forgotten in high school (Bronfenbrenner, 1979).

In an effort too lessen or alleviate many of the issues encountered by students during their transition to high school, and increasing number of schools are implementing some form of transition program to assist students during their transition. Most agreed that an effective program includes a number of different components. To prepare students before ninth grade begins, middle schools must have programs to let students know what to expect, and high schools must have meetings with students and parents to ease the initial transition (Akos & Galassi, 2004). The bulk of the preparatory programs should deal with alleviation of students’ fears of the procedural issues that most see as the biggest hurdle of their ninth grade year. Preparatory programs also serve to inform parents, and include them in their child’s transition to high school.

Research on the social adjustment and academic achievement of young students offers strong support for the usefulness of an ecological approach. Socioeconomics, the nature of a student’s neighborhood, family and extended family relationships, and the
school environment all influence a child's academic motivation and achievement (McLloyd, 1990). To that end, a successful high school transition program must include as many elements of a student's ecology to be successful.

Transition programs also include activities that occur during the school year. These include social and academic programs to introduce new students to upperclassmen, and have them hopefully form bonds that help ease some of the social issues that arise in high school. Academic programs are implemented to help students with the increased rigor of high school work, and to catch them up as they fall behind academically. These provide a safety net for students, allowing them a situation where they can ask for help without being embarrassed or intimidated (Butts and Cruzeiro, 2005).

Finally, most transition programs offer life skills instruction as part of the curriculum, including study skills, time management, and common sense reasoning that many high school teacher have expected them to have merely based on their age. With all these bases covered, students are less confused about what is expected of them, and have a clearer picture of how to deal with the increased responsibility that is placed on them when they enter high school.

The Ninth Grade Academy at Waterloo High school

Over the course of the 2007-2008 school year, a Ninth Grade Academy program was implemented to help improve the academic achievement and behavior of ninth grade students at Waterloo High school. Several situations lead Waterloo high school to make this move. First, the positive outlook of current research on the effectiveness of ninth grade transition programs helped to justify the decision (Smith, 1997). There was also a need to improve the academic achievement and behavior of ninth grade students at
Waterloo high school. Finally, the high retention rate and the increased drop out rate of ninth grade students pointed to a need for a change in the way business was done. Clearly, many ninth grade students were faltering at Waterloo high school, and the ninth grade academy program was instituted to help these at-risk students be more successful.

The researcher is an Earth Science teacher at Waterloo High School, teaching predominantly ninth grade students, and is therefore an integral part of the Ninth grade academy. As part of the Ninth Grade academy, several teaching and management strategies were implemented, such as team teaching, academic achievement after school programs, and the sequestering the ninth grade students and core subject teachers in a separate wing of the building.

The goal of this study is to assess the success of the Ninth grade academy at Waterloo high school in increasing the academic achievement of ninth grade students. A secondary goal of the academy was to decrease the number and severity of behavioral issues. The success of the ninth grade academy program will be indicated by an increase in academic achievement, and a decrease in the number and severity of behavioral issues.
Literature Review

This review of the literature concerned with high school transition programs will be divided into several distinct sections. The first section will deal with the traditional issues encountered by students transitioning to high school such as lower grades, increased behavior issues and increased drop out rates. The second section will discuss 8th grade student's perceptions of what high school will be like, and how their perceptions coincide with reality. The next section of this review will deal with ways students can be prepared for the high school transition during their eight-grade year, which is a factor that is ignored by many programs. The review will continue by outlining several common academic and social programs that schools have incorporated. The final section will deal with ways that faculty and staff can be prepared to play an effective role in a successful high school transition program. The goal of this section is to provide an overview of the many components that contribute to the success or failure of a ninth grade transition program.

The high school transition

Today’s society inflicts upon adolescents a massive barrage of distractions. Students have a hard time juggling family issues, academics, sports, and social engagements. It is no surprise that many students today have a difficult time making the transition into high school (Barone, Aguirre-Deandreis, & Trinkett, 1991). Some students get lost in the shuffle, unable to cope with new academic and social challenges simply because they were never taught how to. Teachers and administrators assume that if they tell students, study harder, they know how to do it. Many students need a hand adjusting to the new rigors and expectations of high school, and with a little guidance, can cope
with the new environment well. Many times students lose their way simply because they were not shown how to succeed.

Students are vulnerable to declines in academic motivation and performance during the transition to ninth grade, which sometimes are not regained in the subsequent years of high school. Self-esteem and the capacity to enjoy certain subjects (such as math and science), also decreases. This loss of self-esteem can be attributed partly to student role changes, and the shifting of interests due to social concerns. The ability to cope with school transitions in ways that sustain high levels of academic motivation, knowledge, and skills is essential for student progression toward college (Wigfield and Eccles, 1991). However, with a decrease of motivation exhibited by this group, many students are not successful enough to make it to college. This core group of struggling students is one of the biggest reasons that ninth grade transition programs are becoming increasingly popular.

Poverty also has a direct impact on the health and nutrition of adolescents, affecting school attendance, energy level, and concentration (National Commission on Children, 1993). Many students from low-income households drop out, often shortly after they enter high school, or they fall behind and fail to graduate on time (Bureau of Census (DOC), 1997; National Center for Education Statistics (ED) 1995). Far more students than is known will fall through the cracks. Many students from low-income families fall in to category of at-risk teens. At risk students are particularly in jeopardy of failing to graduate. As many as 60% of all those students that are identified as at-risk for failure going in to high school will not graduate with their class (Green & Scott, 1995). Students that start high school with the disadvantage of troubled home lives, historically low
performance, behavioral issues, and educational disabilities fall prey to self-doubt and fall behind not because they cannot do the work required, but believe they are not capable.

Students can also develop a negative view of themselves due to the pressure put on them by high school. Due to this negative view, they feel an increased need for peer relationships to help bolster their fears (Hertzog, Morgan, Diamond, & Walker, 1996). Students know that their peers are going through the same problems as they are, so they can talk about these issues and find empathy from their peers. Sadly, the need for stronger peer relationships comes at a tough time for students. The transition into high school often disrupts friendship networks. Friend groups grow apart due to differing interests and issues, and students find themselves needing to find new friends, or depend on friends that they have not been historically as close to. This disruption causes stress, which in turn interferes with student’s success in high school (Barone, et al, 1991)

High school is usually a very different world for students transitioning from middle school. Most high schools are bigger than the middle schools that feed in to them. Teachers and administrators teach in different ways, and expect more behaviorally and academically from students (Mizelle, 2005). Students experience a greater diversity of teachers and peers in high school, and they have more choices in their curricular and extra-curricular activities. In this environment, many student’s grades drop, and they do not attend school as regularly as they did (Reyes, Gillock & Kobus, 1994). With the huge amount of social and academic choice that students have, many become overwhelmed, and simply give up. High school is not what many students expected it to be.
Student's perceptions of high school

In a study of school stressors, middle school administrators, teachers and students were found to have different perceptions (Elias et al, 1985). Administrators listed academic concerns (such as harder schoolwork), harder teachers, and high expectations for students as the primary stressors. At the high school level, teachers seemed to have more of an appreciation of students' academic concerns as reflected by their choices of hard classes and pressure to do well. At the same time, they also viewed social adjustment, fitting in/making new friends as a top student concern (Akos & Galassi, 2004).

Students said conflict with authority, including being sent to the vice-principal and verbal arguments with teachers, was the source of a great deal of stress. (Elias et al, 1985). Students also agreed that the amount of homework and getting lost were top concerns. At the high school level, student and parent top concerns focused on academic performance. At the high school level, students identified homework, a variety of social and organizational changes, and grades as the most difficult aspects of actually being in the high school (Akos & Galassi, 2004).

In a 2006 study, young teenagers made it clear that 9th grade marked the beginning of a new, high-stakes period of their lives. Out in the real world, people had been telling them it would really matter how they behaved and whether they succeeded in high school (Cushman, 2006). How students perceive what they will encounter in high school is shaped by many factors. What their friends, family members and teachers tell
them all leads to a confusing picture of what to expect when students begin their ninth grade year.

Students’ perceptions of issues they will encounter transitioning to high school are very complex. Many are confused as to what to expect of their first year of high school. If a middle school student were asked, most would be very curious and would definitely want to know what high school is going to be like (Mizelle, 2005). While most are concerned about what will be expected of them academically, many more are concerned about social and procedural issues. Students admit to being nervous and scared about older students teasing them; getting lost in their larger, unfamiliar schools, and getting bad grades (Phelan, Yu, & Davidson, 1994).

Student’s ideas of what they will face in high school are common concerns for students of their age. Students believe that high school will be huge and confusing, older students will haze and bully the new ones and the work will be harder, and there will be more of it (Cushman, 2006). Students usually experienced these fears before they actually attend school in the fall of their ninth grade year. These comments appear to indicate that these students that have not been prepared for their transition, as they could be easily alleviated by teachers and administrators in their eighth grade year. Teachers sometimes perpetuated some of these ideas in an effort to motivate students to increase their level of performance in preparation for their entry into high school (Cushman, 2006).

Once they made the transition to high school, students may find that some of their initial fears are unfounded and that some of the opportunities that they looked forward to carry a lot of responsibility (Butts & Cruzeiro, 2005). Students find that high school gives them a chance at a fresh start, and that while high school is more academically
challenging, the courses build on concepts and information that they had learned in the lower grades (Cushman, 2006). Maturity, good study skills, and an active and balanced social life were the characteristics that teachers noted in ninth graders who were adjusting well to the high school (Akos & Galassi, 2004).

In order to get adjusted to or feel comfortable in the new school, high school students spent time with old and new friends, focused on completing school work, and participated in clubs or sports (Akos & Galassi, 2004). After the first few weeks of school, students know where their lockers are, know their schedule, and know their way around school. These things, while important, are just the beginning of a student’s struggle through their first year of high school. After the initial honeymoon period, students begin to realize that they should have been more worried about things that are more pressing. Important issues such as more rigorous academics and increased pressure to perform on state mandated tests have much farther-reaching affects in student’s academic careers.

Students find that teachers have an increased number of students to take care of, so the time they can spend on each student decreases. Secondly, teachers tend to cut students less slack, expecting them to live up to due dates and deadlines. Students find it easier to fall behind due to the increased pace of instruction. Finally, students begin to realize that their decisions and performance have long term and far reaching affects (Cushman, 2006), potentially determining if and where they will attend college, and what their career paths may be.

Ways to prepare students for the ninth grade transition

In recent years, more and more middle schools have developed transition programs to address the particular needs of their students (Butts & Cruzeiro, 2005). The
transition to high school is no longer perceived as a ninth grade issue. If many of the
procedural issues can be front-loaded or taught to the students when they are in eighth
grade, some of the fears that they have about the transition to high school can be
eliminated. This allows them to contemplate and prepare for the real challenges, such as
increased academic rigor and social issues such as dealing with older students.

High school students suggested providing information and insight, better tours of
the school so that students know exactly where classes are located and sending high
school students to the middle school for discussions about the high school (Akos &
Galassi, 2004).

By the time that students make it through most of their eighth grade year, many
have a good idea of what to expect during their ninth grade year. Most students would
love to have their questions answered, and misconceptions dispelled. Ninth graders
pointed out that addressing the issues of transition early on could bolster their confidence
and performance (Cushman, 2006). To be able to address these concerns, an effective
transition program needs to include preparation during the eighth grade year.

Research has shown that fewer students were retained in the ninth grade when
middle school students experience a high school transition program with several diverse
activities (Mac Iver, 1990). These activities help to orient students to what they might
expect in high school and serve to alleviate fears as to things like finding lockers,
knowing the schedule, and knowing their new teachers. Middle school principals
expected fewer of their students to drop out before graduation when the school provided
supportive advisory group activities or responsive remediation programs (Mac Iver &
Epstein, 1991). More must be done in middle school to help students be truly prepared to succeed in high school.

Student’s fears about what they will face in ninth grades are easily alleviated with the implementation of effective communication between the school, parents, teachers and students. One of the most important groups to include in all communication in preparation for their children’s transition to high school is parents. Middle school parents and students need to know about and understand high school programs and procedures to be successful (Phelan et al, 1994). With support from parents, most students will be more successful. Parents need to be involved and understand the decision that their eighth graders must make about classes they will take in ninth grade (Baker & Stevenson, 1986; Paulson 1994). If parents understand what will be expected of students, it is easier for them to guide their child through a tough time in school, and can more closely monitor their child’s progress.

For students to be more successful in high school, middle schools must also implement programs that challenge and support students (McAdoo, 1999). Most successful programs included programs to provide info to parents and students about new school and provided students social support during the transition (Mac Iver, 1990). Many schools do little to help their eighth grade students, hoping that the high school faculty and staff will take care of the problem. While middle schools often seek to ease the transition of their outgoing students into high schools, the time and effort invested in this aspect of their program is limited (Cauly & Jovanovich, 2006).
Academic strategies used to combat transition issues

Research indicates that facilitating a student's transition from middle school to high school requires programs to specifically address the transition period (Felner, Ginter, & Primavera, 1982). Programs can include after school structured learning groups, common facilities for all freshman, interdisciplinary instruction, teacher grouped in teams, and presentations specifically designed for ninth grade students. Students who participated in a well structured transition program were more consistent in their performance in transition to high school (Oates, Flores, & Weinshew, 1998).

Effective transition programs typically are defined as ones that improve student attendance, achievement, and retention (Cauly & Jovanovich, 2006). As was motioned in the first section of this literature review, many students transitioning to high school will exhibit some level of decreased performance in all of all of aforementioned issues. An enriching transition program is needed to address attendance, achievement, and retention issues of new ninth-grade students for them to be successful in the transition to high school. (Butts & Cruzeiro, 2005).

An effective transition program includes many different programs to be successful. According to Butts and Cruzeiro (2005), changes to scheduling and academic procedures that are considered effective include the following:

- Structuring the internal environment to feel like a smaller school, something similar to the school-within-a-school concept or a wing within the building that is specifically ninth grade.
• A block schedule with longer class periods addresses the need for students to spend more time with teachers. With the extended time frame, teachers work with students to deliver lessons in greater depth.

• The core structure groups of approximately 75-80 students share the same team of teachers in mathematics, social science, science, and language arts. Students have the same classmates for those four classes.

• Cards, certificates, and special prizes were given to ninth graders to celebrate perfect attendance and birthdays. Rewards for successes such as perfect attendance, good grades, and good citizenship added to the celebration of achievements.

All these programs are designed in an effort to provide students with a sense of community and academic cooperation. Student interpersonal relationships with their peers should be improved in such a setting (Butts & Cruzeiro, 2005), with collaboration and informal peer tutoring becoming more prevalent as students realize that they all face the same teachers, teaching the same topics in the same way. Another benefit of the teaming concept is that teachers can get a better hold on their students' strengths and weaknesses, especially when discussions are structured to help point out these qualities. Teachers get to know students better and discussion among the core teachers to identify struggling students earlier is an advantage.

Social strategies used to combat transition issues

Parents remain most influential regarding children's long-term educational plans; however, peers have more influence on daily behaviors. Students who receive both parental and peer academic support are more likely to have academic success (Steinberg
et al, 1992). If students see that their peers are more academically successful, they will be more likely to do so themselves. If the culture of the students and school is to succeed academically, it will be more likely that students will be successful during their first year of high school.

One of the most important groups to involve in a transition program is the parents of incoming ninth grade students. Parents involved in their children’s transition process to high school tend to stay involved in their child’s school experience (Mac Iver & Epstein, 1991) Talking about academics and personal/social issues, providing general encouragement, and visiting the school were the primary ways that parents attempted to help with the move to the high school (Akos & Galassi, 2004).

Parents of high school students also tended to employed interventions that had a more academic flavor such as helping with study skills, encouraging time management, talking with teachers as well as having talks with their children that involved listening, providing support, and encouragement. In their view, the school could help by providing greater accessibility of teachers and counselors, and by more communication about the work (Akos & Galassi, 2004). The parents listed a better tour, more middle school-high school interaction, and small group orientation as good ways to prepare students for the transition to high school (Akos & Galassi, 2004).

Research has shown that when parents are involved in their child’s high school experience, students achieve more (Linver & Silverberg, 1997), are better adjusted (Hartos & Power, 2000), and are less likely to drop out of school (Horn & West, 1992). Parents sometimes decrease the amount of attention to their children when they transition to high school. Educators are concerned that, typically, parental involvement decreases as
student's transition to high school, unless schools make a concerted effort to involve parents before, during, and after the transition (Epstein, 1995).

There are other people that can serve as role models for ninth grade students. It is vital that students get a chance to meet and form relationships with older students and other incoming students (Mac Iver & Epstein, 1991). These relationships can help ninth grade students transition to high school in many ways. Many ninth grade students have questions about social or procedural issues. If they know older students, they are more likely to ask questions because they are more comfortable asking them of people their age.

Research shows that students that participated in a number of social interactions with older students received fewer failing grades and missed fewer days of school than those that did not interact with older students (Butts, & Cruzeiro, 2005).

**Training and support of faculty and staff involved in a transition program**

As has been mentioned earlier in this review, an effective transition program not only takes place in ninth grade, but also prepares students for the transition during their eighth grade year. High school teachers suggested a harder middle school curriculum, more help with study skills at the middle school level, and meetings about the new career/pathways curricula that the state had recently adopted as ways to improve student's transit on to high school (Akos & Galassi, 2004).

The same is true of the faculty and staff that teach and guide these students. Most successful transition programs included meetings to bring middle school and high school personnel together to learn about one another's curriculum and requirements (Mac Iver, 1990). It is important that the middle school teachers and staff know what is expected of...
students at the high school level. If the expectations of the high school staff are known
the middle school staff, they have a better chance of preparing students for high school.

Middle school teachers can help prepare students by teaching them procedural
rules, which many students are the most apprehensive about (Mizelle, 2005). Middle
school teachers that have a good idea of the changes that students will encounter can also
better inform students. This helps to lessen the proliferation of rumors among students,
which can be re-enforced by poorly informed adults in their school (Cushman, 2006).
When middle school teachers and staff are better informed, the transition to high school
for their students can be less stressful and more eagerly anticipated

Successful transition programs also include activities that bring together high
school administrators, counselors, and teachers to learn about the programs, courses
curriculum and requirements of their respective schools (George, Stevenson, Thomason
& Beane, 1992). All the players in the transition program must be on the same page, so
that there is agreement about the creations and implementation of programs. There also is
a chance for cooperation to improve the quality of programs through collaborative
efforts.

For a teacher to be included in a transition program, they must be able to provide
a supportive environment for their students. A supportive environment includes teachers
who explain expectations and standards to students and who have a variety of methods
available for the delivery of the curriculum. Many teachers require training and support
not only to live up to these expectations, but also to remain consistent in their practices
with the other teachers of their team. Continuity of procedure leads to students that are
better able to cope with the stressful transition process.
Many teachers will require specialized training and continued professional development to feel they are prepared for inclusion in a ninth grade transition program. So that classes are interesting and students want to attend classes, the teachers and the building principal may work in collaboration to improve instruction techniques (Butts & Cruzeiro, 2005). The principal should be available in a supervisory or collaborative role to assist classroom teachers in their development as effective instructors. Principals should also help facilitate the increased professional development that teachers feel they need. Another aspect of assistance for teachers would be to include a peer-coaching program. Teachers could help other teachers to further develop interesting activities and incorporate a variety of methods to achieve the instructional and developmental goals (Butts & Cruzeiro, 2005).

In the end, the big question is: Have high school transition programs worked. Yes, says Smith (1997), and points out that large scale compilation of nationwide data that points toward the fact that school with a full transition programs exhibit a lower dropout rate and higher academic performance overall, even after taking in to account the demographic variables of family, socioeconomics, and the level of preparation during eighth grade.

A full transition programs incorporates many different variables. Mizelle (2005), points to several factors that are included in a successful program, including the incorporation of academic, social and rewards programs. The incorporation of teachers, administrators, and parents in to the program is also key. Programs that incorporate a component of preparation during the eighth grade year tend to be more successful, and have more willing participants (Smith, 1997). Finally, faculty training and support is a
component that many programs overlook, but is a vital component toward keeping teachers motivated and innovative in their approaches to the unique group of students that they teach. Furthermore, as the transition plan is developed, it needs to be implemented with the most receptive teachers (Cauly & Jovanovich, 2006). If all stakeholders in a program are positive and enthusiastic about a program, its chance of success will greatly increase.
Methodology

Over the course of the 2007-2008 school years, Waterloo High school implemented a Ninth Grade Academy program to improve the academic achievement and behavior of ninth grade students. Waterloo high school is a rural, predominantly Caucasian; lower middle class high school in Waterloo, New York. Waterloo high school educates approximately 700 students, 150 of which are ninth grade students. 28% of the students at Waterloo High school receive free or reduced lunches, and 55% of all students that graduate from Waterloo high school go on to some form of higher education.

Participants

The population researched was a group of 75 first time ninth grade Earth Science students a Waterloo high school, under the instruction of the researcher. Most students in this group are 13 or 14 years of age. The group is 58% female, 42% male. The students were broken up in to three sections, the first block class of 26 students, the third block class of 30 students, and the fourth block class of 24 students. The researcher excluded a second block class of 14 students because they were not traditional ninth grade students, and were taking the class a second or third time due to previous failures. These students were also prone to poor performance and behavior issues due to factors beyond the scope of this research and were not included in the programs and activities of the Ninth Grade Academy due to these issues.

The researcher is an Earth Science teacher at Waterloo High School, and is therefore an integral part of the Ninth grade academy. As part of the Ninth Grade academy, several teaching and management strategies were implemented, such as team teaching, academic achievement after school programs, and the sequestering the ninth
grade students and core subject teachers in a separate wing of the building. The ninth grade class was broken up in to two groups, and each was assigned to a team of teachers teaching the four core classes of Earth Science, Algebra, Global Studies, and English.

The researcher participated in a professional development seminar in preparation for the school year. The Ninth Grade Academy team met to plan together before the beginning of the school year, and participated in limited planning meetings throughout the school year itself.

Procedure

Several different variables were assessed to determine the effectiveness of the ninth grade transition program at Waterloo high school. The academic achievement of 75 9th grade students in a Regents Earth Science course was tracked by calculating the mean, median and passing percentage for the second marking period grades. Additionally, the overall mean and median grades were calculated for laboratory reports 9-12. Finally, the mean, median and passing percentage on the mid-term grade was calculated for the group as a whole. The topics covered during this time included Earth Materials and Plate Tectonics. The researcher was already collecting this data to assess the learning of students.

The data collected was then compared to the mean and median marking period scores, laboratory report grades and mid-term grades for 94 ninth grade Regents Earth Science students during the second marking period of the 2006-2007 school year. This data was used for comparison because the ninth grade academy and associated programs had not been instituted during the 2006-2007 school year. The same topics were covered in the same order during both school years. The pacing of instruction was altered slightly
during the 2007-2008 school year to accommodate the ninth grade academy programs. Lessons and labs were streamlined for the 2007-2008 school year based on notes taken by the researcher and suggestions of peer teachers from the previous year.

Behavioral issues were also assessed. The total number of discipline referrals for the second marking period of the 2007-2008 school year was compared to the number during the same period from the 2006-2007 school year. Additionally, the number of students serving detention assigned by the assistant principal was accessed. Data for this part of the assessment was acquired through the use of the school’s student files.

The final piece of data collected was input from informal discussions and round table meetings with the vice-principal and faculty of the Waterloo Ninth Grade Academy. As can be imagined, every person on the faculty involved with the Ninth Grade Academy had made observations on the successes and failures of the program, and held opinions on what programs and strategies worked and those that did not. This information was compiled over the course of the first three marking periods of the 2007-2008 school year, and used to assess the quality of the program from an educator’s standpoint. This data will also be used to improve the program for the next school year, hoping to eliminate the major issues, and add components to the program that will improve the transition process for the next cycle of ninth grade students.

The success of the Ninth grade academy will be assessed using the all of the data collected. A successful program would increase mean unit test scores and mean mid term grades, and decrease the number and severity of disciple issues in ninth grade students. Finally, the faculty input will serve to improve the program, minimizing teacher frustration and improving their level of enthusiasm for the project.
Results

Over the course of the 2007-2008 school year, a Ninth Grade Academy program was implemented to improve the academic achievement and behavior of ninth grade students at Waterloo High school.

The academic achievement of 75 9th grade students in a Regents Earth Science course was tracked by calculating the mean, median and passing percentage for the second marking period grades. Additionally, the mean, median and passing percentage on the mid-term grade was calculated for the group as a whole. Table 1 below summarizes the data collected and used for this comparison.

The mean second marking period grade increased by one point in the 2007-2008 school year, going from 75 percent to 76%. The median marking period grade increased by a larger margin, going from 75 percent in 2006-2007 to 79 % in 2007-2008. Finally, the passing percentage for the second marking period decreased from 89% in 2006-2007 to 87% in 2007-2008.

The mean mid-term grade increased from 71 percent in 2006-2007 to 72 percent in 2007-2008. The median mid-term grade increased from 73 percent in 2006-2007 to 74 percent in 2007-2008. The passing percentage on the mid-term increased drastically from 64 percent in 2006-2007, to 79 percent in 2007-2008.

The overall mean and median grades were calculated for laboratory reports 9-12. These laboratory reports were chosen because the worksheets and procedures on them remained unchanged between school years, and all four labs were administered to both groups of students. On all four labs, there was clear improvement in both the mean and median grades, and the passing percentage on all four increased.
Table 1:
Overall grade comparisons

<table>
<thead>
<tr>
<th>School year</th>
<th>Mean 2nd marking period grade</th>
<th>Median 2nd marking period grade</th>
<th>Passing percentage 2nd marking period</th>
<th>Mean mid-term grade</th>
<th>Median mid term grade</th>
<th>Passing percentage Mid term</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006-2007 school year</td>
<td>75</td>
<td>75</td>
<td>89%</td>
<td>71</td>
<td>73</td>
<td>64%</td>
</tr>
<tr>
<td>2007-2008 school year</td>
<td>76</td>
<td>79</td>
<td>87%</td>
<td>72</td>
<td>74</td>
<td>79%</td>
</tr>
</tbody>
</table>
The Earth Science students of 2007-2008 achieved much higher grades on laboratory reports than the Earth Science students from 2006-2007, and turned in their labs at a much higher percentage. The results of the analysis of grades on laboratory reports 9-12 are presented in Table 2 below.

In general, the effect of the implementation of the ninth grade academy had a positive effect on the academic achievement at Waterloo high school. Students performed better on the midterm exam, achieved better marking period grades, and turned in lab reports on time, and that were more complete and accurate. Additionally, the percentage of students achieving passing grades on the mid-term and on labs 9-12 increased.

Behavioral issues were also assessed. The total number of discipline referrals for the second marking period of the 2007-2008 school year was compared to the number during the same period from the 2006-2007 school year. Additionally, number of detentions assigned to freshman by the principal was assessed.

The number of discipline referrals and detentions for ninth grade students during the second marking period of 2007-2008 was much higher in comparison to the same period during the 2006-2007 school year. In total, there were 77 discipline referrals and 79 detentions for the second marking period of 2007-2008. In comparison, there were 44
Table 2
Laboratory reports #9-#12 grades compared between 2006-2007 and 2007-2008

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Median</td>
</tr>
<tr>
<td>Lab #9-Rock Identification</td>
<td>55</td>
<td>60</td>
</tr>
<tr>
<td>Lab #10-Continental Drift</td>
<td>59</td>
<td>57</td>
</tr>
<tr>
<td>Lab #11-Movement of Tectonic plates</td>
<td>75</td>
<td>76</td>
</tr>
<tr>
<td>Lab #12-Finding the Epicenter of an Earthquake</td>
<td>75</td>
<td>78</td>
</tr>
</tbody>
</table>
discipline referrals and 53 detentions during the 2006-2007 school year. The results of the study of discipline referrals and detentions can be seen in Table 3.

In general, the effect of the implementation of the ninth grade academy did not show a positive effect on the behavior of ninth grade students at Waterloo high school. Many more discipline referrals were written, as well as many more detentions served. While these data seem to portray poorer behavior under the Ninth Grade Academy program, several pieces of evidence will be discussed that will attempt to explain the apparent shortcoming of the program in this respect.

The final piece of the puzzle was faculty input. During planning meetings and informal round table discussions, several positive and negative comments were common among the teachers. In general, most teachers felt that student achievement was improved by the Ninth Grade Academy, as was behavior. Most teachers noted that having the entire ninth grade sequestered in their own hallway allowed easier control of students, and cut down on the number of students disciplined for being late to class and taking too long with locker and bathroom breaks. Teachers also agreed that keeping upper class students separated from the ninth graders helped with behavior issues.

Most teachers appreciated a weekly meeting to plan and discuss students, and thought that many students that may have slipped though the cracks academically were caught by these weekly discussions. Many more parent meetings were planned to motivate failing students to get back on track. Finally, while some teachers balked at the idea of sending grade reports home on a weekly or biweekly basis through e-mail, most
Table 3
Comparison of the number of discipline referrals and detentions between the 2006-2007 and 2007-2008 school years-second marking period

<table>
<thead>
<tr>
<th>School year</th>
<th>Number of discipline referrals</th>
<th>Number of detentions assigned</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006-2007</td>
<td>44</td>
<td>53</td>
</tr>
<tr>
<td>2007-2008</td>
<td>77</td>
<td>79</td>
</tr>
</tbody>
</table>
teachers did see an improvement in parent communication, with a subsequent improvement in both behavior and academic achievement of students.

However, the negative aspects of the Ninth grade academy were many. First and foremost, teachers felt that the students were being watched too closely, and not really allowed to make their own mistakes. Many teachers worried about how some students would perform in tenth grade without the support they had received in ninth. The academic achievement after school program was also a major issue, as many students did not take advantage of it, and those that needed it the most were the most likely to not participate.

Teachers were worried about the extra time and effort that they were asked to spend, and wondered how that fit in to their contract. Finally, many teachers in the faculty of the Ninth Grade Academy hoped that they would receive more professional development that was targeted towards team teaching and working in a Ninth grade academy. They hoped to be better able to plan collaboratively in the future with better training provided by the school district.
Discussion

Several points will be discussed during this discussion. First, the goal of implementing a ninth grade academy at Waterloo High school seems to have been met in part. Student achievement was increased, but sadly, student behavioral issues were not decreased. Teachers of ninth grade students had many positive and constructive comments, but raised several concerns, which will hopefully be addressed in the future by administrators. Finally, the community and parent reaction to the Ninth grade academy was mixed, being seen as a great improvement by some, and an unnecessary burden by others.

In general, the effect of the implementation of the ninth grade academy had a positive effect on the academic achievement of students at Waterloo high school. This data seems to agree with the findings of both Mizelle, (2005) and Smith (1997), as their studies showed that academic performance of students both improved after the implementation of ninth grade transition programs at many other schools. Students performed better on the midterm exam, achieved better marking period grades, and turned in lab reports on time, and lab reports that were more complete and accurate.

Faculty and administrators proposed several explanations for the increase in behavioral issues. First, the ninth grade students were watched much more closely, and with teachers collaborating on a daily basis, trends in behavior could be tracked and dealt with more quickly. In addition, students were able to get away with fewer behaviors due to the increase scrutiny of their teachers, parent, and administrators.

Secondly, the increased experience of the vice principal during the 2007-2008 school year allowed him to be more on top of student behavioral issues, instead of these
issues falling through the cracks. 2006-2007 was the vice principal’s first year in that position, so there was a fair amount for him to learn during the course of that school year. In a personal discussion with him, he admitted to being more able to perform his job due to his increased confidence and the experience gained during his first year. Fewer student infractions were allowed to slip due to his increased vigilance during the 2007-2008 school year. Hence, more students were apprehended and punished for behavioral issues.

Finally, the activities of a small percentage of students accounted for a majority of the discipline actions taken by administrators during the course of both school years. During the 2006-2007 school year, seven students accounted for 48% of all the discipline referrals. During 2007-2008, the same seven students, who had been held back in ninth grade, accounted for 43% of all discipline referrals. This small group accounted for almost half of all discipline referrals during both school years. When third marking period records of 2007-2008 were assessed, it was found that most of these student had been expelled for the year or had dropped out of school, and the number of discipline referrals and detentions had dropped to a lower level than the third marking period of 2006-2007. Clearly, these seven students had a large influence on their peers, and when they were eliminated from the picture, behavior of the rest of the group improved.

The Ninth Grade Academy at Waterloo high school included many of the components of a good transition program mentioned by Butts & Cruziero (2005), including the sequestering of students in to a smaller school within a school, core groups of 75-90 students, and reward for good grades and citizenship. Other programs were also incorporated, such as an after school academic achievement program, peer tutoring by
upper-class students, and an increased level of parental contact mandated for teachers. All of these programs, save for one, produced a positive remark from the faculty and parents.

Sadly, there was little training and preparation for faculty, as there were only small number of meetings during the summer to prepare and plan collaboratively, and only a single workshop to prepare teachers for their new assignment. This lead to a great deal of frustration on the part of the faculty involved, and many felt that they did not have adequate training to take on the new responsibilities that were given to them. Also, a few of the teacher selected for the faculty of the Ninth Grade Academy were not very happy to have been so. While they went along with the plan, they seemed to voice the majority of dissent on several occasions. All of these actions by the administration of Waterloo high school went against the findings of Cauly & Jovanovich (2006), who felt that transition programs need to be implemented with the most receptive faculty. Finally, the lack of training for faculty is contrary to the findings of Butts & Cruzeiro (2005) who felt that faculty should be extensively trained to present information in new, collaborative ways.

Little, if any preparation for 9th grade was undertaken by the middle school staff during the eighth grade year. This is contrary to the findings of many researchers, including Mizelle (2005), Cushman (2006), Cauly & Jovanovich (2006), Phelan et al, (1994) and Butts & Cruzeiro (2005). All of these researchers found that early intervention during the eighth grade year was beneficial to both the mental and academic states of transitioning ninth grade students. While an open house and several parent meetings were held during August of 2007, they were poorly attended, and those families that did attend were of students that would have little trouble with the transition to high school, being high performers already.
Conclusion

In conclusion, the implementation of the Waterloo high school ninth Grade Academy was a success in some respects, as most ninth grade student's grades increased. However, the program was not without its problems. Behavioral issues were seen to increase, and several explanations for this trend were given during the discussion. These include the influence of a small number of very poorly behaved students during both school years, increased scrutiny by faculty and administrators due to a the smaller school within a school structure, and the increased experience and confidence on the part of the vice principal. Teacher's perceptions were that behavior had improved, and there was less distraction in the classroom due to behavioral issues.

Further issues still need correcting. Students did not take advantage of all the after school help and peer tutoring that they could of, especially the ones that needed the help the most. The organization of the after school program was cumbersome, and teachers found it hard to keep track of. While this program was a positive addition to the transition program as a whole, it will need re-working in the future to streamline the process.

A second change for the future would be to increase the number of transition programs during the eighth grade year. Collaboration between the high school and middle school faculty and staff could help better tailor programs in the middle school and in the high school to the needs of the students. It could also help to alleviate confusion for the students, allowing faculty and staff to dispel some of the common student misconceptions about high school before they even finish eighth grade. This would necessitate the inclusion and participation of middle school faculty and staff during the planning and implementation of the transition program.
Finally, increased faculty training and an increased amount of common planning time would help to increase collaborative efforts. If students can see the connections between their core subjects, they would be more likely to excel in one in preparation for the other, and could feel that what they are learning is important to their everyday lives. Faculty training might help to alleviate the frustration that many have felt with the program this year, allowing them to learn strategies to deal with the challenging group known as ninth graders.

A change in some staff members to those that are more open to the program would also dispel some of the nay saying in the group, which can become contagious and disheartening. Having to work with adults that are having a hard time buying in to the system can be difficult, for the students and their teachers. Teachers must set an example for the students, and when the example is a poor attitude about the program, students will mimic that poor attitude. That same teacher’s poor attitude about the program can also affect their teaching peers, as they will be less likely to collaborate on planning, and less likely to want to incorporate other’s curriculum and ideas in to their classroom.

This research could be continued by tracking the year long progress of the ninth grade students, and perhaps continuing the research into the following years, tracking the Ninth Grade Academy as it grows into a more successful program for all those involved. Continued research will serve to guide the development and evolution of the program to suit the needs of the faculty, staff and students that take part in it every day.
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