The Effects of Peer Mentoring on Student Mobility Outcomes

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**Introduction**

Student mobility creates more problems in U.S. schools than many realize (Engec, 2006; Gruman, Harachi, Abbott, Catalano, & Fleming, 2008; Han, 2014; Langenkamp, 2011; Rumberger, 2003). While school initiatives put the majority of their focus on the high academic standards put forth by national and state leaders, high mobility students experience more and more difficulty in our school systems (Engec, 2006). In this study, mobile students may be operationally defined as students entering or exiting their current school for reasons other than promotion to the next school level (i.e. elementary school, middle school, high school) and may include students making this move any time before, after, or during the school year. A number of studies on student mobility outcomes pinpoint issues in academic performance and troubling behaviors as the major difficulties mobile students face (Engec, 2006; Gruman, Harachi, Abbott, Catalano, & Fleming, 2008; Han, 2014; Langenkamp, 2011; Rumberger, 2003). Unfortunately, it is not uncommon for new students needs for assistance in adjusting to their new school to go unaddressed (Engec, 2006).

Student mobility is a widespread concern that can occur at any school for any number of reasons. Although research on the effects of student mobility has been mixed, many studies do state that student mobility can lead to a number of negative consequences. Negative effects of student mobility may differ depending on other student factors. However, studies that have controlled for these extraneous factors have discovered that, with all other factors controlled for, academic and behavioral problems still remain (Gruman et al., 2008; Han, 2014; Langenkamp, 2011). Not only are there negative consequences for individual students who are highly mobile, but there are negative consequences for teachers and whole schools as well. It is likely difficult for teachers to adequately teach their students when their classes have high student turnover rates. The difficulty in catching new students up with the rest of their class is also reflected in school test scores which, in turn, may negatively affect the school (Rumberger, 2003).

While many suggestions have been made to combat the issue of student mobility, no studies have examined the effects of peer mentoring on mobile students’ outcomes. The literature on peer mentoring programs for new students deals mostly with college-level students. Peer mentoring programs in colleges and universities have been designed for the purpose of making the transition from high school to college smoother for incoming freshmen, as well as for the purpose of improving academic performance and retention rates. Studies have shown that peer mentoring for college freshmen is related to increased satisfaction with their university (Sanchez, Bauer, and Paronto, 2006), intent to graduate (Sanchez et al., 2006), increased freshmen retention rates (Budny, Paul, and Bon, 2006; Hall and Jaugietis, 2010), increased academic performance (Budny et al., 2006), higher self-confidence (Hall and Jaugietis), and enhanced communication, social, employment, and organizational skills (Hall and Jaugietis, 2010). Additional benefits for mentors involved in such programs may include increased commitment to university, degree area, and profession, which may also lead to increased commitment to graduate (Sanchez et al., 2006).

 Unlike peer mentoring programs designed for college students, peer mentoring programs for younger students found in the literature have not focused on new students specifically. However, peer mentoring programs for primary and secondary students do exist. In particular, a cross-age peer mentoring program, referred to as CAMP, has been designed for use with elementary and middle school student mentees and high school mentors. The program may be delivered in a number of different ways, but the underlying purposes of CAMP include promoting connectedness to self, others, and society and increasing academic performance. Research on CAMP has shown social, emotional, and academic benefits for mentees, including improvement in social skills, self-efficacy, academic performance, connectedness to peers, behavior problems, and attitudes toward antisocial behaviors (Karcher, 2008, 2009). CAMP mentors have also seen gains in self-esteem, and both mentors and mentees reported better connection to school (Karcher, 2008, 2009).

 A review of both the literature on the negative effects of student mobility and on the benefits of peer mentoring inspire hope for a peer mentoring program to negate the consequences of student mobility. If applied to mobile students in the high school setting, peer mentoring may increase academic performance, connectedness to school, social functioning, and decrease dropout behaviors common amongst this population, among other benefits. This study will contribute to the literature on student mobility by suggesting a peer mentoring intervention for mobile students. Specifically, it will apply a modified CAMP framework for mobile middle and high school students.

**Literature Review**

Student mobility may occur for a large number of reasons, including a residential move, disciplinary actions, difficulties with the way their current school is run (Rumberger, 2003), school closures (Han, 2014), and opportunities for advancement or higher ability programs (Langenkamp, 2011). For instance, students from high poverty, inner city, migrant, or limited English proficiency backgrounds, or who have experienced stressful life events and/or initial poor school performance may also be more likely to have high mobility (Engec, 2006; Gruman et al., 2008). A number of suggestions have been made to fix the problems of high student mobility. Rumberger (2003) suggests improving the overall quality of schools, which would make it more desirable to students and parents to stay, as well as providing counseling to new students who are high risk. Engec (2006) encourages educators to pay more attention to students who experience any school moves, and to work closely with parents to inform them of the negative effects of changing schools. While reviewing the research a common theme was found. Almost every article reviewed for this paper suggested some sort of social component to mitigate the negative outcomes of student mobility, whether it be a specific program (Rumberger, 2003), social events, a student council to work with mobile students (Han, 2014), participation in extracurricular activities (Langenkamp, 2011), support from teachers (Gruman et al., 2008), or the facilitation of friendships (Gruman et al., 2008). However, as was stated in the introduction of this paper, studies have not yet examined peer mentoring as an intervention for combating negative student mobility outcomes.

This literature review will touch on both the current research on student mobility and the proposed benefits of peer mentoring based on successful peer mentoring endeavors completed with incoming freshman students at the college level. It will also examine cross-age peer mentoring at the elementary and middle school levels. For the purpose of this literature review, peer mentoring may be defined as a mentoring relationship between two individuals of similar age or social groups, in which one individual (the mentor) has experienced certain events that the other individual (the mentee) is now beginning to experience. Cross-age mentoring will refer to a similar relationship amongst students of dissimilar age groups, with the older of the two serving as the mentor. Topics covered will include academic performance, behavioral concerns, and dropout rates. An overview of one of the current peer mentoring programs available for elementary and middle school students will also be discussed.

**Academic Performance**

While research has been mixed on the exact effects of mobility on students, some academic concerns for mobile students include low test scores, particularly in math and reading (Engec, 2006; Gruman et al., 2008; Han, 2014; Langenkamp, 2011; Rumberger, 2003), low classroom participation (Han, 2014), high retention rates (Gruman et al., 2008; Han, 2014), low aspiration to perform well in school (Engec, 2006: Han, 2014), and lower grade point averages than non-mobile peers (Langenkamp, 2011). While peer mentoring programs have not widely been used to combat the negative academic effects of student mobility, some success has been shown with peer mentoring new college-age students. Specifically, improvements in academic success have been found with peer mentoring for college freshmen.

Budny et al. (2006) implemented a college peer mentoring program for incoming freshmen engineering majors. This program took place during their first semester of college and included both a large group lecture and a small group mentoring component that occurred each week. The small group component was run by senior engineering majors who served as mentors. The peer mentoring program showed a significant impact on freshmen academic performance. Performance increases included an increase in students making first semester honors (receiving a 3.50 GPA or higher), a decrease in students on first semester probation (receiving a 2.00 GPA or lower) and an almost half point overall GPA increase (from C+ to B-). In subsequent years using this program, mentor involvement was adjusted to study the effects of peer mentoring further. After previously encouraging peer mentors to be very active in their approaches with their students, peer mentors were then instructed to take a more relaxed, wait-and-see approach. As a result, freshmen students reported feeling that their mentors were not as helpful. These students also performed more poorly when compared to classes that had highly involved peer mentors. The researchers concluded that this indicated the importance of implementing proactive peer mentoring programs, as opposed to waiting until students thought they needed assistance.

**Behavioral Concerns**

School mobility may contribute to increases in negative behavioral outcomes such as relational violence, drug use, and depression. Han (2014) found that elementary school boys who change elementary schools more than once are more likely to become involved in relational violence later in life. He also found that adolescents who experience residential change were involved in more violence than their non-mobile peers, and that residential mobility as associated with drug usage, teen pregnancy, and depression. Lastly, Han (2014) found that schools with higher mobility rates tended to have more frequent issues involving insubordination. Engec (2006) found that school suspension rates increased as the number of times a student had moved schools increased, with the highest number of suspensions belong to students who had moved the most and lowest number belonging to students who had never moved. Langenkamp (2011) noted that students who are mobile feel less connected with teachers, are less popular amongst peers, and report lower than average participation in extracurricular activities. All of these factors are in fact associated with higher GPAs.

Promising results from college peer mentoring studies may provide suggestions for peer mentoring programs at the middle and high school levels to combat behavioral concerns. For instance, Hall and Jaugietis (2010) conducted a peer mentoring program similar to that of Budny et al. (2006). However, Hall and Jaugietis’ program was voluntary, lasted for the first seven weeks of the school year, and was closely monitored and modified over the course of six years. Looking at the data from the six year time frame, it was found that, as a result of participation in the program, mentors reported enhancement in their communication, social, employment, and organizational skills. They also reported improvements in their self-confidence.

**Dropout Rates**

With respect to academic issues, mobility is likely to impact high school graduation rates, with many high mobility students dropping out before graduation (Han, 2014; Rumberger, 2003). College peer mentoring studies have had positive results concerning student retention that may be of use to those seeking a peer mentoring program to keep high mobility students from dropping out. Sanchez et al. (2006) conducted research on a college mentoring program in which all incoming freshmen business majors were mentored by seniors in the business program over the course of one semester. The results of this study found that there were significant benefits of peer mentoring, and that these benefits persisted over time. During the intervention semester, as well as at the end of the following semester, it was found that peer mentoring was related to satisfaction with the university. It is important to note that the quality of mentoring was strongly related to satisfaction with the university. Satisfaction with their university experience may theoretically lead to a higher likelihood of successful degree completion within the university.

While these results are positive, it was found that results for the relationship between mentoring and affective commitment were mixed. There was a relationship between attitudinal variables and intentions to graduate from the university, but not between attitudinal variables and intention to graduate from the school of business specifically. This may have been a result of students being committed to graduation overall, but unsure that they would be able to meet the school of business requirements for graduation. This study also cites research stating that serving as a mentor could increase an individual’s commitment to their profession and lead to a likelihood of persisting in this profession. The researchers state that perhaps at the university setting it is possible that serving as a peer mentor may increase commitment to the university, degree area, and profession which could, in turn, lead to an increased commitment to graduate. Overall, the results of this study show promise for low-cost mentoring programs geared toward university students.

In addition to the academic improvement mentioned earlier, Budny et al. (2006) found that peer mentoring at the college level had an impact on freshmen retention rates. Upon implementation a reduction in the number of students leaving the engineering program was found. For those students who did leave the program, less than 2% of the transfer population left the university, while the rest transferred to new programs within the university. Hall and Jaugietis (2010) also found additional benefits relating to retention. Data showed that adjustments made to the program from 2004 to 2009 lead to an increase in the number of students who considered discontinuing or deferring their academic careers but decided not to.

**Cross-Age Peer Mentoring at the Elementary and Middle School Level**

While literature on peer mentoring for new students typically focuses on college-level freshmen transition from high school to college, peer mentoring programs do exist at the primary and secondary school levels. Michael Karcher provides a number of articles on his cross-age mentoring program, referred to as CAMP, which involves high school student mentors working with elementary and/or middle school mentees. Karcher’s (2008) program consists of varying combinations of mentor-mentee meetings during school hours (typically at lunch time), afterschool hours, full day Saturday meetings, and even a two-week summer camp. CAMP’s highly structured design includes the use of academic and social development activities, as well as free play activities and sports. Within the program, mentees complete a connectedness curriculum that is geared towards teaching connectedness to self, others, and society. Mentors in the program are given ongoing training on topics such as providing empathy, praise, and attention with a clear, consistent structure. Training also focuses on the developmental needs of mentees and is tailored to assist mentors in meeting their mentees where they are at developmentally.

 In spite of evaluation of individual CAMP programs, little generalizable research has been done. However, research that has been completed has been promising. Overall, positive outcomes have been noted in the realms of social, emotional, and academic benefits (Karcher, 2008). Mentees in CAMP programs have shown improvements in connectedness to peers, self-efficacy, social skills, grades and academic achievement, behavior problems, and conventional attitudes toward behaviors that are antisocial and illicit (Karcher, 2008, 2009). Mentors in CAMP programs report gains in self-esteem, and participation in cross-age peer mentoring predict more favorable connection to school for both mentees and mentors (Karcher, 2008, 2009).

**The Current Study**

 The many benefits of peer mentoring and cross-peer mentoring could potentially mediate a number of the consequences of student mobility. Peer mentoring could enhance the academic performance of mobile students who receive low test scores and low GPAs. The feeling of connection to and satisfaction with school, as well as an increase in self-efficacy associated with peer mentoring may assist those mobile students experiencing low aspiration to perform well in school. For mobile students with increased negative behavior outcomes like relational violence, drug use, insubordination, and high suspension rates one may look to the decrease in behavior problems and negative attitudes toward antisocial and illicit behavior that are associated with peer mentoring participation. Students in peer mentoring may be swayed from dropping out of high school for similar reasons. It was also shown that freshmen students who participated in peer mentoring had higher retention rates, higher satisfaction with their university, and an increase in their intention to graduate. Finally, the push for connectedness to self, others, and society may be useful for mobile students who feel less connected to their teachers, who are less popular among peers, and who have lower than average participation in extracurricular activities. Overall, peer mentoring appears to be a promising fit for mobile students.

The current study proposes a social program to combat the negative effects of student mobility. Specifically, this study will examine the effects of peer mentoring on mobile students. As no research was found concerning peer mentoring programs for mobile students specifically, this study will contribute to the research by testing out the effectiveness of peer mentoring for mobile students. The program used will be an adapted version of Karcher’s CAMP model, created by the researcher. The research questions for this study are as follows: a) will the implementation of a peer mentoring program for mobile students increase the academic performance of mobile students?, b) will the program decrease problematic behavior, including incidences of violence, drug use, and insubordination, in mobile students?, and c) will the program decrease dropout rates for mobile students?

**Methods**

The proposed study will be conducted at a rural Indiana combined middle/high school. The purpose of this study will be to implement a peer mentoring program for students moving into the school during the 2016-2017 school year and to examine the effects of this program on students’ academic and behavioral outcomes. Academic outcomes will be measured using student GPA, while behavioral outcomes will be measured using student discipline referrals. Events of student dropout will also be recorded. Student data from the 2016-2017 school year will be compared to mobile student data from the past three years to examine any changes in academic performance or behavior.

**Participants**

 Participants will include all students moving into the middle/high school during the 2016-2017 school year, as well as selected high school student mentors. New students will be identified by the high school guidance secretary upon enrollment. As each new student will be invited to participate in the peer mentoring program, there is no way to identify the number of mentees that this study will have. High school mentors will be selected during the spring semester of the 2015-2016 school year. The process of selecting high school mentors will include teacher recommendation and student willingness to volunteer. Potential mentors will be required to hold a C or better in all course work for the 2015-2016 fall and spring semesters. The rationale for this is to ensure that students do not neglect their own academic work, and that mentors are able to assist their mentees with academic concerns. Approximately 10 to 15 students will be selected for mentor roles in each grade at the high school level. As new students move in, they will be assigned to a high school mentor. Middle school students will participate in true cross-age peer mentoring, as their mentor will be older than them, while new high school students will be matched with students in the same grade as often as possible, to explore the effects of same-age peer mentoring.

**Materials**

Materials used for the intervention itself will include a researcher-adapted version of CAMP. In an effort to include as many students as possible, the adapted CAMP will have a decreased time commitment. CAMP mentor-mentee meetings will occur twice a week during a 30 minute block of intervention time already in place at the site school. These meetings will reflect the typical after-school CAMP meeting, which includes an icebreaker, a connectedness curriculum activity, a snack, and a group game or recreational activity (Karcher, 2009). During the first meeting of the week, students will participate in an icebreaker and a connectedness curriculum activity. As often as possible, connectedness curriculum activities will include an academic component, to encourage academic success amongst mentees and mentors. During the second meeting of the week, students will participate in another ice breaker, a brief time for mentors and mentees to check in with one another with any questions or concerns that have arose since the previous meeting, and a group game or recreational activity.

Materials for data analysis will include the use of the school’s current database to track data on mentees’ GPAs, office discipline referrals, and any dropout that occurs. Additionally, the database will be used to observe the same archival data from new students over the past three years. Microsoft Excel and EZ Analyze will be used to compare data from past new students and mentees in the program.

**Design**

 The study will be a quasi-experimental design. The independent variable in this study will be the peer mentoring program. The dependent variables will be new student participants’ GPA, office discipline referrals, participation in extracurricular activities, and dropout rates. All data being examined will be ratio level data. This study will be a within-groups treatment design.

**Procedure**

 After taking teacher nominations and speaking with student volunteers, a call out meeting will be held for potential high school mentors during the spring semester of the 2015-2016 school year. During this meeting students will receive information about the program, including the purpose of the program, their role in the program, and requirements for being accepted as a mentor. At the conclusion of the program, students will sign their names on a signup sheet to confirm their interest in the program. They will also record their preference in receiving a same-age or cross-age mentee. After this, student grades will be checked for all previous grading periods during the current academic year. Students who have a C or better will be accepted as peer mentors. Peer mentors will participate in one training session a week during the 30 minute intervention block during the last four weeks of the 2015-2016 school year. During training sessions, students will learn how to provide consistent structure for their mentees, as well as how to provide empathy and praise. Students will also learn about developmental differences between themselves at middle school students, in preparation for the possibility of receiving a middle school mentee.

 At the beginning of the 2016-2017 school year, all new students enrolled will be assigned to a mentor. With respect to their preference for a same-age or cross-age mentee, mentors will be separated into two groups and will be assigned at random to a mentee. Peer mentor meetings will begin the first week of school. As stated in the Materials section, meetings will occur twice a week for 30 minutes each. Mentees will have the program available to them for nine weeks. At the end of the nine weeks, termination will occur. Enrollment in the program will be on a rolling basis as students enroll. As such, mentors may not be assigned a mentee until further into the semester. Mentors who have not been assigned a mentee or who have terminated with their previous mentee will still participate in weekly meetings as to keep abreast of what is occurring in the program, as they may be assigned to incoming new students at a later time.

**Instruments**

As was stated earlier, academic outcomes will be measured using GPA, while behavioral outcomes will be measured using student discipline referrals. Additionally, any occurrence of dropout will also be evaluated. All data for this study will be collected and stored in the school’s database as part of their usual procedures. Data from the past three school years, which will serve as a comparison to evaluate change, will already be stored in the database as well. Data collection will conclude at the end of the 2016-2017 school year, with data analysis following immediately after. To begin, data for all students moving into the school will be pulled for the 2016-2017 school year, as well as for the previous three school years. Specifically, students’ beginning and end of year GPAs, all discipline referrals, and any dropout that occurred amongst mobile students will be examined. Once this data is collected, it will be organized in an Excel spreadsheet for comparison.

 A repeated measures analysis of variance (ANOVA) will be completed for each student to determine how student GPA changed from the beginning to the end of the school year. The repeated measures ANOVA will provide the mean differences in GPA over one year. I will also conduct an ANOVA test to examine the mean differences between GPA, discipline referrals, and dropout rates during the previous school years and the 2016-2017 school year.

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