

**Academic Case Managers:
Supporting the Educational Life of
Urban Multicultural
Middle School Students**

**Nancy Van Kannel-Ray
Associate Director for Programs,
GEAR UP Learning Centers
Western Michigan University**

**Warren E. Lacefield,
Associate Professor,
Information Systems Specialist,
GEAR UP Learning Centers
Western Michigan University**

**Pamela J. Zeller
Director of Evaluation,
GEAR UP Learning Centers
Western Michigan University**

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This paper documents the impact of placing academic case managers as an intervention in middle schools for students of poverty who are not passing core courses. Academic case managers provide a mechanism to facilitate students learning to cope with their own challenges within the system of public school education. Such structural supports are a step toward overcoming what Kozol (1991) refers to as a “divided and unequal education system [that] is still in place four decades after Brown” (p. 196). In this case, the academic case managers, who are the structural supports, deliberately facilitate academic success for students of poverty. Additionally, they help students to “cope with the challenges and adversity [as they learn to engage] in learning, particularly within the context of schooling” (Lee, 2005, p. 94).

Background and Significance

School systems across the country grapple with how to provide a comprehensive and systemic program of restructuring public schools that involves establishing support structures for students and families (Kretovics, Farber, Armaline, 2004). The first step in academic success is to provide a positive learning environment within which students can cope with the challenges and barriers in their lives so that they can succeed academically (Lee, 2005). This is particularly true for children who live in low-income, urban settings. How does a school system work with key issues in students’ lives to help them understand and overcome matters such as teen pregnancy, neighborhood violence, and substance abuse?

Academic case managers engage students in effectively “understanding existence, knowledge, and ethics in a context of cultural, social and political upheaval” (Slattery, 1995, p. 25). In addition to increasing their understanding of the larger context outside of schoolhouse walls, this intervention focuses students on learning not only to come to an “understanding of

themselves and others in the world,” but also to focus on and cope with their own academic success (Schubert, 1986, p. 33).

Social constructivism has much to add to this conversation. Social patterns are grounded on assumptions of connection and community (Ernest, 2004). By focusing on the shared experience of culture, as Gergen (2001) asserts, institutions can understand both the social context of individuals and groups and change happening within living systems. For example, Michigan, where the intervention schools are situated, currently has the highest unemployment rate (7.7%) in the country. The delicate structures of family life often are disrupted. In addition there often is an increase in the number of students who qualify for free and reduced lunch, an increased rate in transiency, and an increase in adolescent and teen problematic behaviors. These issues with regard to poverty have a direct impact on student academic achievement.

The dialectal nature of social constructivism provides what Spector and Kitsuse (1977) refer to as “understanding the problems a society calls attention to” and attempts “to mobilize the institutions to do something about them” (p.78). By identifying a problem and giving a voice to the issue and a possible solution, groups can come to a transformative process to develop a more satisfactory lived experience for individuals and groups. Such is the process with the academic case manager model, which was designed to affect directly the social and contextual understandings of the students within the target population.

We are proposing an academic case manager intervention that focuses on two specific features: 1) facilitating students completing classroom assignments and 2) understanding the context of students’ lives outside of school and using this understanding as a vehicle for developing specific interventions to help students relate to their school concerns. The premise of this model is founded on the idea that well-planned practical case manager interventions

focusing on these two key features will go a long way toward overcoming the significant obstacles created by the gap between the school and community environments. Such intervention strategies hold great promise for motivating and encouraging students to become responsible for their own learning.

Research Model

During a year-long pilot study, which ran from September to June of 2006-2007, three questions were examined. First, were there observable student grade changes in core courses (English/language arts, math, science, history/social studies) from one semester to the next over the course of the academic school year? Second, were there changes in attendance? Third, were there changes in behavior over the year for this particular population? This population included cohorts of approximately 40 seventh grade students served by each case manager in each of 3 urban middle schools for an approximate N=120 students assisted/supported by case managers out of a population of some 600+ students in total.

The current study is part of a 5-year longitudinal project that will focus on multiple factors including course selection and academic performance, attendance and drop-out, and patterns of student behavior as a result of the academic case manager intervention. The partnership district involved in this study was one of 6 project sites in the MERC GEAR UP service area. This district is located in southwest Michigan. There are 7,364 students enrolled in 15 elementary schools, 3 middle schools, a high school, and an alternative 6-12 building. More than 63% of the students in this district qualify for free/reduced lunch, about 50% are from minority groups, and there is an increasing population with limited English proficiency.

The cohort for this study included all seventh and eighth graders in three urban middle schools in the 2006-2007 academic school year (N=2144). Baseline academic and behavior data

were obtained for this cohort for the previous year (when the students were in sixth and seventh grade). Students were selected and assigned to case managers at the beginning of the school year based on these indicators (N~120). The primary data source was school and district student information system records. Secondary data sources included case manager records, GEAR UP student, teacher, and parent surveys, and student focus groups. Variables examined include marking period GPA in core academic subjects and semester data on mandatory and discretionary behavioral incident referrals. Analytical methodology employed was a 2B1W repeated measures ANOVA model examining differences between the case-managed and reference groups across the 8 marking periods (or 4 semesters) covering academic school years beginning in 2005 and ending in 2007. The criterion for statistical significance for this study is $\alpha = .05$.

Case Manager Intervention Model

The case manager model emerged from discussions between project personnel and a team of teachers and administrators. To begin the discussions, project personnel shared descriptive data about the school with the team. Teachers were familiar with the dismal state achievement data (30% passed the Reading Proficiency test, 29% passed Math Proficiency) and that 86% of the student body qualified for free/reduced price lunch. We also showed them cohort data concerning retention rates, behavioral referrals, and GPA trends. Teachers were well aware of the academic and behavioral problems of their own (6th grade) students. Though the data brought into relief the severity of the problem for each school as a whole, more students were failing core courses by 8th grade, setting the scene for high school dropout.

During these initial conversations with the school personnel, teachers and administrators shared that the personal problems and issues in their students' lives were constant barriers to

learning and to building a sense of their personal and educational efficacy. As Kant (1787/1996) has argued, knowledge production arises from the experiences of the knowledge producer. The social and experiential landscape in which a person interacts is a key component of that cognitive growth. As teachers described, the effects of the social and experiential landscape for their students of poverty were wide ranging and these also affected school achievement and motivation to learn. As Piaget (1967/1971) also asserted that humans organize their cognitive capabilities by acquiring knowledge through interaction with and adaptation to the environment, then interventions which address these environmental issues may affect directly student learning.

The case management model was developed to address the social and experiential context of students lived experience. In this model, case managers focused on facilitating a student-centered learning environment. Such an environment encouraged the organization of the student's experiences into some personally meaningful idea of the world (Fosnot, 1996; Becker and Varelas, 1995). The case managers helped students to become active participants in their own educational lives. A first step towards this goal was to build relationships with the students and their families in order to understand the lived experiences of the students. This is particularly important since, in a constructivist framework, the voice of the student is valued (Brooks and Brooks, 1999; Desautels, Garrison, and Fleury, 1998).

To understand the students' voices, evaluators for the GEAR UP project worked with academic case managers in order to develop a student discussion group protocol. Student discussion group sessions were held in each of the three schools at the beginning of the year.

Questions such as the following were asked:

- Tell us about your classes this year.
- Tell us how things are going with your teachers this year.
- Are you comfortable in your school environment?

The compiled results gave GEAR UP personnel, academic case managers, teachers, and principals a broader understanding of the lived experiences of the students within their school environments, highlighting areas for intensive conversation and focus for the year. For example, most of the students experienced difficulty with math and were struggling to keep up. They explained that they did not understand the subject area and were having difficulty keeping up with teacher expectations. As a result of this conversation, case-managed students received GEAR UP tutoring especially designed for them by their academic case manager. To facilitate this, case managers spoke both with the student and his/her teacher. The teacher conversations focused on three understandings: 1) how the child was doing in class, 2) how the child learned within that particular environment, and 3) what were the assignments the teacher was asking the child to complete. From time to time, case managers attended students' classes in order to hear what was being taught and how assignments were framed to further help their students. In another example, there were mixed responses with regard to student/teacher relationships. Most of the students did not believe that they were able to get extra help from their teachers after school and did not believe that they could get behavioral issues resolved. When asked if they had approached teachers about extra help, some said yes, but most said no. Those who said they did not ask for extra help explained that they were not comfortable with asking some teachers for help. Using this information, case managers helped their students by modeling how to get extra help from a teacher and how to resolve their behavioral issues. This was done individually with students in response to their particular issues. Additionally, discussion group information provided GEAR UP personnel with a list of further resources and materials that would support student success during and after school. These included additional tutoring, mentoring, and after school recreation.

With the focus group as an initial foray into understanding students' educational landscape, case managers then met with students daily. Some of the meetings were unstructured such as saying hello in the hallway, while some were structured such as bi-weekly individual meetings lasting between thirty to sixty minutes per student. These meetings were the springboards for student success. Further, case managers worked with students to develop their educational goals and plans (see Table 1) and helped them to analyze the tasks needed for completion. In some cases, this was a formal interview; in most, an informal conversation.

Table 1. GEAR UP: Setting and Achieving Goals	
STUDENT DISCUSSION QUESTION	KEY POINTS OF STUDENT RESPONSES
What's the difference between a wish and a goal?	
How do you decide what your goals are?	
Is it every okay to take risks? What kinds of risks are okay?	
What is the difference between failing and being a failure?	
If you don't accomplish all your goals, does that make you a failure?	
What are some good ways to deal with disappointment?	
Why is it a good idea to set goals?	
What are your goals?	

They helped students understand their classroom assignments. They talked with students about their daily lives and helped students to gain control of their own educational experiences. They talked with parents and guardians and significant adults in their students' lives to help them in advocating for and supporting their child's educational success. They helped to find and connect students and families to outside social services.

In addition to building relationships, an integral component of the case managers' intervention model was to track the number of assignments completed by each student (Table 2).

Table 2. Academic Case Manager Record-Keeping Chart	
Current Grades in Core Classes	Missing Assignments
Science	
History	
English	
Math	

This became the intervention lynchpin to help students improve in their academic endeavors. A primary conversation point at each student meeting was a discussion about what assignments students had and had not completed. The case managers would share their tracking of assignments with students and discuss what students needed in order to complete. This evolved into a weekly communication with each student's teacher, tutoring sessions during school and after school, parent/guardian communication, and a series of student incentives and rewards. The rewards included a wide spectrum of possibilities from pencils or t-shirts to oral and written positive communication to parents and guardians to field trips that connected what was being learned in school with life outside of school. Additionally, this conversation naturally flowed into discussing barriers to completing assignments from social and environmental factors outside of the school house walls and on to behavioral, organizational, and foundational skills needed for school success. Some of this discussion became an autobiographical worksheet for the students documenting when and where case managers, students, and their families discussed questions such as: *"Does the future look good to you?" ... "Why?"* or *"What is the one thing that could possible hold you back and prevent you from getting what you want out of life?"* and *"Why?"*

Analytic Findings

Two longitudinal data analyses were performed to examine academic performance and behavioral effects over a two year period before and during the case manager intervention as functions of GROUP, SCHOOL, and TIME. Both analyses were two-between, one-within

ANOVAs with two fixed between-group effects, GROUP (with two levels representing non-case-managed and case-managed students and SCHOOL (with three levels representing the three middle schools in the study). The repeated measures factor TIME in the first analysis has 8 levels representing the 4 marking periods during Year 1 before identification of students receiving the case-management intervention and 4 marking periods during Year 2 while those students were receiving case-management services. The dependent variable in the first analysis is student GPA in core courses. Group sizes with complete data sets were $N_{\text{ref}}=537$ and $N_{\text{cm}}=94$. The results of this study are presented in Table 3 with a plot of mean GPAs over time shown in Figure 3.

The second analysis examines trends in serious behavioral incidents over time, semesters 1 and 2 of Year 1, followed by semesters 1 and 2 of Year 2. Group sizes with complete data sets were $N_{\text{ref}}=554$ and $N_{\text{cm}}=97$. The results of this study are presented in Table 4 with a plot of average number of mandatory behavioral referrals over time shown in Figure 4. In both analyses, Mauchly's Test for Sphericity was significant and the Huynh-Feldt epsilon degrees of freedom adjustment was applied.

This study provided evidence of the need for and the value of explicit formal structural supports for students' personal and social lives within the school context. The two-way interactions between Group and Time for GPA ($F_{5,006,3128,503} = 22.101, p < .0001$) and for the measures of behavior ($F_{2,420,1565,922} = 8.640, p < .0001$) were highly significant, although these interaction patterns changed from one school to the next (Figures 3 and 4). The main effect for Group was also, of course, highly significant (for GPA: $F_{1,625} = 65.041, p < .0001$ and for behavior: $F_{1,647} = 8.902, p < .003$), but this simply documents the initial design and selection differences between the two groups. How these patterns diverged over time reflects differences among schools as well as case manager treatment effects.

In terms of typical academic performance and rate of behavioral incidents, the reference group of students (who were not selected for case management) showed little change and slight trend over the two year period. At the beginning, there was only a small difference between the reference group and the case managed group in terms of GPA (-.5 pts) and very little difference in terms of behavior. By the end of the first year, a substantial, almost -1.0 point, GPA difference had grown between the reference group and the case managed group as well as almost a doubling in the rate of behavior related problems (in at least one school). At this point, these latter students were identified on the basis of GPA and behavior and began to receive case manager intervention. The case manager intervention appeared effective. The case managed students' downward trajectories appeared to be attenuated and in some cases reversed during the first semester of the pilot year. This general effect differed significantly by school (for GPA: $F_{10.011,3128.503} = 4.630, p < .0001$ and for behavior: $F_{4.841,1565.922} = 5.877, p < .0001$) as can be seen in the Figures.

Table 3: 2B1W ANOVA Summary of average student group and school GPA effects over the year before and year during the case-manager intervention.

Mauchly's Test of Sphericity

Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Huynh-Feldt Epsilon
Time (as marking period)	0.315	718.571	27	0.0000	0.715

Tests of Within-Subjects Effects (Huynh-Feldt adjusted)

Source	SS	df	Mean Square	F	Sig.
Time	70.370	5.006	14.058	39.467	0.0000
Time * Group	39.407	5.006	7.873	22.101	0.0000
Time * School	40.051	10.011	4.001	11.231	0.0000
Time * Group * School	16.513	10.011	1.649	4.630	0.0000
Error(time)	1114.399	3128.503	0.356		

Tests of Between-Subjects Effects

Source	SS	df	Mean Square	F	Sig.
Group	366.161	1	366.161	65.041	0.0000
School	28.414	2	14.207	2.524	0.0810
Group * School	19.781	2	9.890	1.757	0.1734
Error	3518.580	625	5.630		

Table 4: 2B1W ANOVA Summary of average group and school mandatory behavioral referrals over the year before and year during the case-manager intervention.

Mauchly's Test of Sphericity

Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Huynh-Feldt Epsilon
Time (as semester)	0.659	269.125	5	0.0000	0.807

Tests of Within-Subjects Effects (Huynh-Feldt adjusted)

Source	SS	df	Mean Square	F	Sig.
Time	973.380	2.420	402.176	33.373	0.0000
Time * Group	251.987	2.420	104.115	8.640	0.0001
Time * School	1137.372	4.841	234.967	19.498	0.0000
Time * Group * School	342.820	4.841	70.822	5.877	0.0000
Error(time)	18870.581	1565.922	12.051		

Tests of Between-Subjects Effects

Source	SS	df	Mean Square	F	Sig.
Group	613.282	1	613.282	8.902	0.0030
School	13043.991	2	6521.996	94.666	0.0000
Group * School	855.612	2	427.806	6.210	0.0021
Error	44574.995	647	68.895		

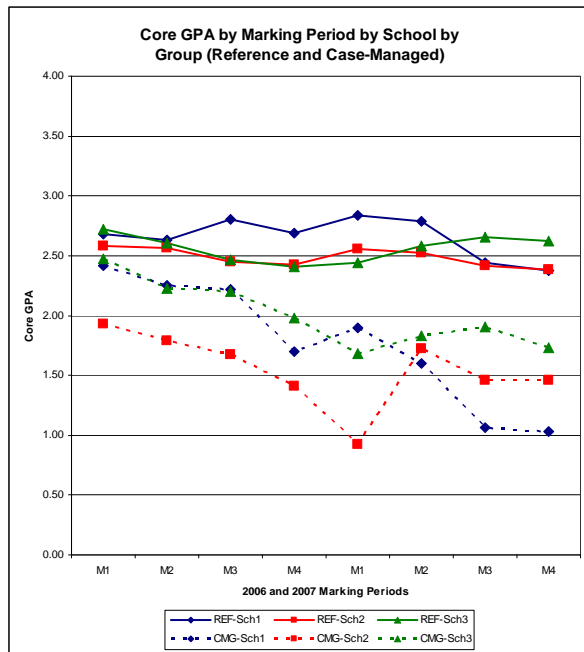


Figure 3. Core GPA by Marking Period by Cohort Group (Ref. & Case Managed)

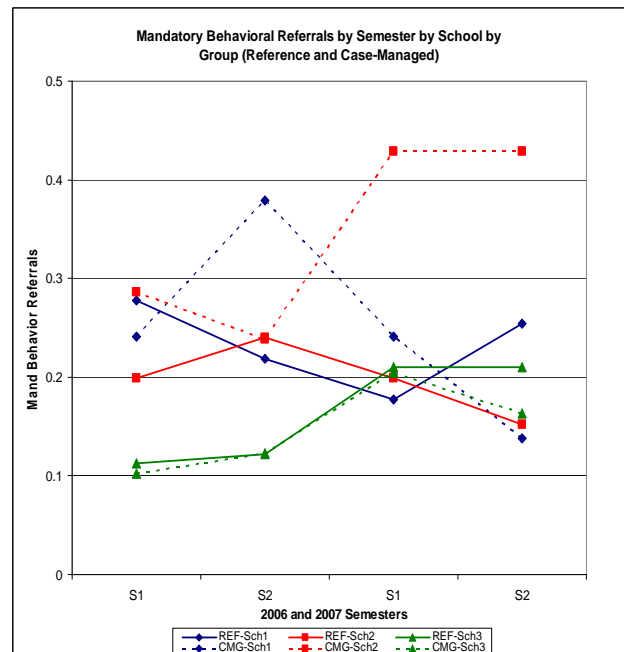


Figure 4. Mandatory Behavioral Referrals by Semester by School

Educational and Scientific Significance of the Study

The case manager intervention model served as a method for uncovering the contextual frameworks that students attribute to their world. Utilizing that contextual information, academic case managers helped students focus on co-constructing environments in which they understood how their personal world and their educational world intersected. This helped students be academically successful.

Borrowed from the health care and social services professions, case management models are relatively new to the educational sector. The study presented indicates that the academic case management intervention model worked with children of poverty in urban schools. Furthermore, this study helps to move the case management intervention model into the set of best practices for learning. This extends beyond mentoring and tutoring and focuses on individualized attention to students. Academic case managers track each student's classroom assignments, homework, tests and quizzes to insure that they are accurate, complete, and submitted to their teachers on time. They also focus on helping students to understand the learning efforts and effects that lie beneath their assignments. Over the next four years of this study, we hope to replicate, document, and focus further on the effects of academic case managers and social service interventions in schools for children of poverty.

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