

Washington School Research Center



Improving Academic Achievement in Primary Students Through a Systemic Approach to Guidance and Counseling

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**Christopher Sink
Seattle Pacific University
Heather Stroh
Washington School Research Center**

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Washington School Research Center
3500 188th St. S.W., Suite 328
Lynnwood, WA 98037
Phone: 425-744-0992
Fax: 425-744-0821
Web: www.spu.edu/wsrc

Jeffrey T. Fouts, Ed.D.
Executive Director
Professor of Education

Martin L. Abbott, Ph.D.
Senior Researcher
Professor of Sociology

Duane B. Baker, Ed.D.
Director
School Information Services

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A Research Report From
The Washington School Research Center

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INTRODUCTION

While the trajectory of institutional change tends to be more gradual in American education, elementary (primary) and secondary (middle and high) schools have not been immune to the accelerating pace of societal evolution (e.g., socio-technological advances or changes in the family structure). Moreover, the publication of *A Nation at Risk: The Imperative for Educational Reform* (National Commission on Excellence in Education, 1983) and the subsequent passage of the Goals 2000: Educate America Act (US Congress, 1994), have further accelerated the pace of school reorganization and reform already underway in various states. Genuine modifications, however, in the industrial model of schooling and traditional pedagogy are often times difficult to detect, especially in secondary buildings (Herr, 2002) and educational scholars and pundits remain unconvinced that American schools will ever truly remake themselves for the better (e.g., Kinsler & Gamble, 2001; McNeil, 2000; Shanker, 1990).

During the past two or so decades, the school counseling profession has transitioned through a developmental process of reorganization as well, with its traditional emphases yielding to a more broad-based structure of assisting schoolchildren and their caregivers (see e.g., Gysbers, 2001; Gysbers & Henderson, 2000; MacDonald & Sink, 1999; Sink, 2002; Sink & MacDonald, 1998; Snyder & Daly, 1993, for further discussions). This “new” direction was originally labeled “developmental guidance and counseling” (Dinkmeyer & Caldwell, 1970), whereas in contemporary parlance, the reorientation—one that has to a degree paralleled general school reform—is called a “comprehensive guidance and counseling program” (CGCP; Gysbers, 2001; Sink, 2002) or “comprehensive school counseling programs” (Campbell & Dahir, 1997; Dahir, 2001; Dahir, Sheldon, & Valiga, 1998). To be consistent with the primary framers’ terminology (Gysbers & Henderson, 2000), we refer to this approach as a CGCP.

In order for school reform to be deemed “efficacious,” student performances in a variety of areas must demonstrate *bona fide* improvement. As such, we believe, similar to other leading scholars in the field (e.g., Adelman & Taylor, 2002; Gysbers, 2001; Herr, 2002; House & Hayes, 2002), that to accomplish this goal administrators must realign their counseling interventions and services within the context of a CGCP (Gysbers & Henderson, 2001; Lehr & Sumarah, 2002; Sink, 2002). Given this assertion, this unavoidable research question necessitates an answer: Do school counselors operating within a well defined and implemented CGCP actually promote higher academic achievement and a range of noncognitive outcomes in schoolchildren? To respond to this query in some measure, we report here the most germane results of a large investigation

conducted in Washington State's elementary schools. Prior to summarizing the study and its relevant findings, we attempt to clarify the pertinent CGCP terminology for potential international readers and those educators unfamiliar with this orientation to school counseling. For the purposes of discussion, we also proffer various recommendations on how school administrators and other educational personnel may be able to enhance academic achievement in elementary school students by deploying a comprehensive approach to guidance and counseling. First, though, a context for this investigation by reviewing the stage-like history of the American school counseling profession is provided.

Research Contextualization: Three Stages of Professional School Counseling

Phase 1: Position approach. Like most disciplines, professional school counseling in the United States continues to experience shifts in its foci (see e.g., Gysbers & Henderson, 2000; Gysbers, 2001; Herr, 2002; Myrick, 2003b, 1997, for more extensive discussions). The first period (circa 1910s to 1950s) instituted a "position" orientation, where guidance personnel (i.e., typically vocational and classroom teachers) dispersed occupational and career information to high school students (Grades 9 to 12, ages 14 to 18 years) with the objective directed largely on employment training (Gysbers & Henderson, 2001). Little thought was given to students' psychosocial and educational issues, and elementary-age children and early adolescents remained, essentially, beyond the scope of the guidance professional's work.

Phase 2: Services model. During the next stage (circa 1960s to 1980s), a "services" model (also called a "process-based" or pupil-personnel orientation; Gysbers & Henderson, 2000; Herr, 2002) was established. Middle (Grades 6 to 8, ages 12 to 14 years) and high school counselors, as well as other guidance personnel (e.g., nurses, attendance officers, teachers) attempted to provide (a) adequate psychoeducational support (reactive/crisis) services to students at risk for school failure or those experiencing personal-social difficulties, and (b) educational and career guidance to the college- or university-bound. For this reason, a more psychological-clinical outlook replaced the work focus of the previous period. Simply stated, students on either end of the normal curve (about 15 to 20% of the student population) were the center of attention, leaving the mainstream pupil without vital counseling and guidance services. Even though school counseling at the elementary level (Grades K to 6, ages 5 to 11 years) surfaced during this time, the influence on students' overall welfare was insufficient given that nearly all school districts had (and continue to have) few resources to employ one or more school counselors per building and public accountability targeted general education rather than counseling and guidance.

Phase 3: Comprehensive guidance and counseling movement. Approaching the late 1970s and early 1980s, several leading researchers in school counseling and career education (e.g., Donald Dinkmeyer, Norman Gysbers, Edwin Herr) argued that the profession required a major transformation. While the background for these appeals for change is well summarized in the literature (e.g., Dinkmeyer & Caldwell, 1970; Gysbers & Henderson, 2000; 2001; Herr, 2002; Myrick, 2003b, 1997; Paisley & Borders, 1995;

Vanzandt & Hayslip, 2001), briefly they are: (a) the enactment of federal legislation (e.g., National Defense Education Act of 1958 and Carl D. Perkins Vocational Educational Act of 1984) that supported the advancement of school counseling, (b) the influence of developmental (e.g., Piaget's cognitive, Kohlberg's moral reasoning, and Erikson's psychosocial) and career education (e.g., Donald Super's stage model) theories, and (c) the economic-political demands for educational accountability, program evaluation, and curricular revisions. In response to these catalysts, the school counseling mission has been revitalized, where all children, not just those on the margins, are supposed to be served within a framework of a competency-based or results-based CGCP (Johnson & Johnson, 2003; Johnson & Whitfield, 1991; Lapan, 2001).

Over the past decade or so, this programmatic vision has emerged as the most commonly deployed organizational structure for the profession (Sink & MacDonald, 1998), endorsed strongly by the national professional guild, the American School Counselor Association (ASCA, 1997, 1999, 2003; Campbell & Dahir, 1997; Dahir, 2001; Dahir et al., 1998; Wittmer, 2000a, 2000b). More than 50% of the states have devised or are working on some form of a comprehensive program (Sink & MacDonald, 1998). The ASCA national model (ASCA, 2003) is now available for school districts to use as a framework for their CGCPs.

Two recent studies on the dissemination of CGCPs across the U.S. showed that the implementation process creates significant obstacles for many counselors (Sink & Yillik-Downer, 2001) and numerous state CGCPs require better evidence that their programs were theoretically grounded (MacDonald & Sink, 1999). Furthermore, many state and district programs posit in their mission statements that one of the central outcomes is to facilitate the development of "good" or "productive" citizens or people of character (e.g., Coats, Ash, & Dorsey, 1998; Hatch, 2000; Sink, 2002). Some evidence suggests, however, that citizenship or character/moral education, among others, is a largely ignored domain in most state and district-wide CGCPs (MacDonald & Sink, 1999). Given the lack of civility in our schools, this domain is badly needed (Sink, 2002). Despite these concerns, as mentioned earlier, preliminary efficacy research on a wide array of student and program outcomes is encouraging (see e.g., Borders & Drury, 1992; House & Hayes, 2002; Lapan, 2001; Whiston & Sexton, 1998, for reviews). Before we discuss the current study, the key terminology and elements of the CGCP are overviewed.

Definitional Issues and Key Components of a CGCP¹

¹ According to Myrick (2003b), the usage of the term *guidance* in the US has changed over time, where in the early 1900s, the term normally involved vocational guidance. Currently, "guidance" tends to be an overarching term, which involves a collection of services aimed at students' educational, personal-social, and career development, as well as school adjustment. Educators, including school and career counselors, teachers, and school psychologists (or as in the UK, educational psychologists), perform these activities. Most schools have *guidance programs* that include a formal curriculum that is taught in the classroom. Some educationalists still tend to use *guidance* interchangeably with the term *counseling*. Most often, when school counselors speak of *counseling*, they are referring to the interactive and confidential process of helping a student(s) either individually or in a small group setting with personal, social, or other concerns.

Principal elements. For those who are unfamiliar with the essence of a CGCP, its primary characteristics are summarized. A CGCP acts as an organizational and pragmatic scaffold from which counselors and guidance personnel (e.g., nurses and career counselors) direct their interactions with students, parents, and community members (Campbell & Dahir, 1997; Gysbers & Henderson, 2000, 2001; Paisley, 2001; Wittmer, 2000a, 2000b). Structurally, the majority of programs, whether they are district- or state-developed, comprise statements that address their mission, underlying assumptions, and rationale. Students are provided with classroom guidance presentations (lessons that address specific curricular outcomes), individual planning (e.g., advisement, assessment, placement, and follow-up), responsive services (e.g., individual and small group counseling, consultation, and referral), and overall system support (e.g., program management activities, community outreach, public relations). CGCPs also include student competencies which are carefully arranged in a scope and developmental sequence (at least kindergarten through secondary school or Grade 12) and have performance benchmarks. The outcomes are largely restricted to three principal areas: personal/social behavior, educational skills, and career/vocational proficiencies. Some programs have additional competences that relate, for example, to multicultural issues, emotional intelligence, and moral and character formation.

At their heart, school counseling programs should be *comprehensive*, *collaborative*, and *developmental* (Campbell & Dahir, 1997; Myrick, 2003b, 2003b, 1997; Paisley, 2001; Paisley & Hubbard, 1994). They are wide-ranging because they attempt to (a) serve all pupils and their caregivers, (b) encourage the attainment of the prescribed student competencies, (c) offer an assortment of services (e.g., counseling, coordination, consultation, and large-group guidance), and (d) provide remediation and prevention (ASCA, 1997; Gysbers & Henderson, 2000, 2001; Henderson & Gysbers, 1998).

Comprehensiveness also refers to a multisystemic orientation to guidance and counseling, which implies that in order to be helpful to students (i.e., promote behavior change), school counselors need to be mindful of the various, interconnected subsystems (e.g., family, peer group, the school, and the community) that influence their lives (Keys & Bemak, 1997; Keys, Bemak, & Lockhart, 1998; Keys & Lockhart, 1999; Littrell & Peterson, 2001). A systems perspective draws upon both general systems (e.g., von Bertalanffy, 1968) and social ecological theories (Bronfenbrenner, 1979), where the school counselor, for instance, directly confers with the child's teachers and caregivers in a coordinated way to facilitate student growth. Enduring behavior change, thus, is not chiefly the responsibility of the schoolchildren, but instead necessitates a salient alteration of their microsystems (i.e., their day-to-day relationships among relevant persons), and perhaps, of their macrosystems (i.e., school and societal levels) as well (Keys & Lockhart, 1999).

If a systems adjustment is, therefore, often required for students to do well at school, comprehensive programs must support collaboration and partnerships among school personnel and leading stakeholders (e.g., parents, community agency representatives; Keys & Lockhart, 1999; Lehr & Sumarah, 2002; Littrell & Peterson,

2001; Myrick, 2003b, 1997; Porter, Epp, & Bryant, 2000; Rowley, 2001). Paisley (2001) suggested that collaborative school counseling programs focus on group rather than individual problem solving and are integrated rather than isolated counselor interventions either in the office or in the classroom. Recent research on CGCPs nationwide points to the lack of meaningful collaboration among counselors during the program planning and implementation phases (Sink & Yillik-Downer, 2001). Clearly, this dilemma needs to be remedied.

Further, CGCPs should support healthy development across curricular domains (Clark & Stone, 2000; Gysbers & Henderson, 2000, 2001; Myrick, 2003b, 1997; Neukrug, Barr, Hoffman, & Kaplan, 1993; Olson & Perrone, 1991; Paisley, 2001; Paisley & Benschoff, 1996; Paisley & Peace, 1995). Pupils are assumed to advance through a series of qualitatively disparate developmental stages involving such dimensions as cognition, moral and ethical reasoning (care and justice), psychosocial dynamics, and career decision-making. Because developmentally based programs are educative and pre-emptive in nature, rather than mainly crisis or remediation oriented, school guidance personnel are charged with promoting students' psychological growth and school and life success (Paisley, 2001). To do so, school counselors, in partnership with other key members of the program leadership team, must formulate developmental curricula that reflect up to date research and best practices. Moreover, systemic counseling interventions should focus on student mastery of developmental tasks (e.g., Havighurst, 1972). Succinctly stated, developmental theory is the foundation for most aspects of the program structure.

While the supposition that comprehensive programs are devised on a solid developmental footing remained largely uncontested until recently, contemporary scholars have raised serious questions. Keys et al. (1998) suggested, for instance, that CGCPs are insufficient to effectively address the developmental needs of at-risk students. MacDonald and Sink's (1999) qualitative developmental analysis of nearly 25 state programs found major deficiencies as well. Numerous programs were largely replicas of preexisting models (see e.g., Gysbers & Henderson, 2000 or ASCA, 2003, for template). Nearly all programs failed to address in depth vital issues affecting development such as children's cultural heritage and ethnicity (MacDonald & Sink, 1999; Sink, 2002). We now consider the potential role programs may have in improving the academic performance of schoolchildren.

Linkage Between CGCPs and Academic Achievement

In keeping with Lapan's (2001) recent recommendations for CGCP evaluation, Green and Keys (2001) and others (e.g., Adelman & Taylor, 2002; Gysbers & Henderson, 2000; Johnson & Johnson, 2003; Johnson & Whitfield, 1991; Myrick, 2003a; Schmidt, 2000) emphasized that school counseling programs (a) align their student targets with the goals of school reform, (b) use evidence-based best practices, and (c) report outcome-based data as way of ensuring accountability of their work with students and their caregivers.

In particular, several prominent scholars in the school counseling field have recommended that CGCPs should include results-based assessments, where school counseling program outcome data ought to be directly aimed at improving student learning (e.g., Gysbers, 2001; Lapan, 2001; Lapan, Kardash, & Turner, 2002; Paisley & Hayes, 2003). For instance, House and Martin (1998) and House and Hayes (2002), resonating with the positions of Green and Keys (2001) and Gysbers, called for school counselors to provide evidence that they positively impact student achievement and other relevant outcomes (see also Paisley & Hayes, 2003). Bemak (2000) pressed the issue a bit farther. He suggested that by revising school counselors' position descriptions to include the advancement of student academic achievement, the highly publicized performance gap among low income, disadvantaged pupils and other student groups would diminish. As if to put a capstone on the issue, a leading school counseling researcher alleged, in the context of a CGCP: "By performing a more proactive leadership role in empowering students to become self-regulated learners, professional school counselors will both motivate young people to *more fully realize their academic potential* [italics added]..." (Lapan et al., 2002, p. 264).

Although Glossoff and Koprowicz (1990) offered preliminary research findings in the area of elementary school counseling and its relationship to enhancing academic achievement, student retention rates, and children's socio-emotional behaviors, attitudes, and skills, studies attesting to the potential efficacy of CGCPs as a scaffold for improving, in particular, academic achievement, are scarce (House & Hayes, 2002). Program evaluation research conducted in Missouri (see summaries in Gysbers, 2001; House & Hayes, 2002; Lapan, 2001) and to a lesser extent in Utah (Nelson & Gardner, 1998) indicates that CGCPs can have a positive influence on various noncognitive and cognitive student outcomes, including achievement.

These results tend to be correlational in nature and rely heavily on self-report surveys which measure student and staff perceptions of self-efficacy or change (Lapan, Gysbers, Multon, & Pike, 1997). For instance, in a large state-wide study of seventh-graders (13 to 14 year olds), Lapan, Gysbers, and Petroski (2001) reported that in more fully implemented comprehensive school counseling programs, no matter what the socio-economic status (SES) of the surrounding community, middle school students "felt" they were doing better in school (earning higher marks) and were safer. These results appear to be largely consistent with previous CGCP studies conducted by Gysbers, Lapan, Hughey, and their research colleagues (e.g., Hughey, Gysbers, & Starr, 1993; Lapan, Gysbers, Hughey, & Arni, 1997; Lapan, Gysbers, & Sun 1997). Other research reviewed in the school counseling literature (Borders & Drury, 1992; Whiston & Sexton, 1998) support these findings.

Research Focus and Hypothesis

Given that the claims for improved elementary-age student achievement in the cognitive and noncognitive domains appear to be rigorously untested, this document reports on the empirical findings of one dimension of a larger study which intends to

answer this question: Do CGCP elementary (primary) school pupils² show enhanced performance over those children in buildings without a school- or district-wide school counseling program?

To respond to this research question, the following alternative hypothesis was examined: Third and fourth grade students enrolled in elementary schools with at least five years of CGCP implementation will significantly out perform those children who were attending schools with no systemic guidance and counseling program on various formal measures of academic achievement (e.g., reading, mathematics, and listening).

² This study examined results for 3rd, 4th, and 6th grade students. However, this report discusses the results for 3rd and 4th grade students only; 6th grade students' results will be examined in a subsequent report.

METHOD

Participants

School level. One hundred and fifty elementary schools from Washington state were randomly selected to participate in the study. The buildings represented small (enrollment from 1 to 365 students, $n = 49$, or 33%), medium (enrollment from 366 to 499 students, $n = 57$, 38%), and large (enrollment of 500 or more students, $n = 44$, 29%) schools and were distributed across the state in rural ($n = 59$, 39%), suburban ($n = 57$, 38%), and urban ($n = 34$, 23%) areas. Schools reported an average of 39% of their students eligible for a U.S. government financial assistance program for low income or “disadvantaged” families. Qualified pupils receive a free or reduced cost lunch, and in some cases, breakfast as well. This percentage has been used as an estimate of a family’s level of poverty in several statewide educational studies (personal communication with researchers at the Washington School Research Center, 2002).

School personnel. Of the 150 elementary schools, 31 did not have a formally educated counselor on staff, and therefore, these schools were *a priori* categorized as a non-CGCP building and further questioning was not needed. Of the original 150 schools contacted, 119 school personnel were surveyed by telephone. They were primarily female (79%) and European American or white (93%), with an average age of 45.5 ($SD = 9.6$), representing the general state-wide demographics for school counselors. Most respondents (95%) also reported having at least one graduate degree (e.g., master’s). Those more fully queried about their counseling program either were a Washington State Educational Services Agreement (ESA) Certification as a school counselor ($n = 99$ out of 119 or 83%), non-certificated but formally trained counselors (2.5%), ESA certificated school psychologists (10%), ESA certificated counselors who were also teachers (2.5%), or ESA certificated social workers (1.7%). Not uncommon in elementary schools, some respondents reported working full time (58%), while others indicated that they were employed only part time (42%). The school personnel’s caseloads averaged 451 students and they had worked on average nine years total in their specific profession and five years in their current educational position. Finally, of the original 150 schools, 67 schools were identified as having implemented a CGCP (i.e., the research group) and 83 schools were identified as not using a CGCP (i.e., the comparison group).

Students—total sample. During the 2000-2001 school year, data on students ($N = 20,131$) within each of the 150 participating elementary schools were also collected. Specifically, information was garnered from schoolchildren in Grades 3 ($n = 9,863$, 49%) and 4 ($n = 10,268$, 51%). In general, the students reflected the ethnic diversity of the state (European American, 72%; Hispanic, 12%; Asian American, 6%; African American, 5%; Native American, 3%; other, 2%). The gender distribution was 51% males and 49%, female, with less than 1% no gender indicated.

Research and comparison groups. The total student sample was divided into research (CGCP, $n = 9,816$) and comparison (non-CGCP, $n = 10,315$) groups. Overall, the research sample (European American, 68%; Hispanic, 11%; African American, 7%; Asian American, 8%; Native American, 3%; other, 2%) was slightly more ethnically diverse than the comparison group (European American, 76%; Hispanic, 12%; Asian American, 5%; African American, 3%; Native American, 2%; other, 2%). The former group was comprised of 4,999 (51%) males, 4,805 (49%) females, and another 12 (0.1%) students who did not indicate a particular gender. A similar gender breakdown was reported for the comparison group: 5,308 (52%) males, 4,975 (48%) females, and 35 (0.3%) non-identified students.

In regards to total building enrollment, the research group's students were enrolled in large (enrollment of 500 or more students, $n = 4,464$ or 46%) schools, with fewer medium (enrollment of 366 to 499 students, $n = 3,941$, 40%) and small (enrollment of 1 to 365 students, $n = 1,411$, 14%) schools than the comparison group's students (i.e., large, 38%; medium, 42%, small, 20%). The research sample's schools represented a more even distribution of urban (31%), suburban (42%), and rural (26%) buildings than the comparison group's buildings (urban, 16%; suburban, 38%, rural, 44%). Schools in the research group reported an average of 39% of their students eligible for a U.S. government program for low income families that involves receiving a free or reduced cost lunch as compared to an average of 37% for the non-CGCP group.

Research subgroup. The CGCP sample was further broken down into a group of "high" CGCP implementation (5 or more years, $n = 3,027$). In general, the students in these buildings reflected the ethnic diversity of the larger research group from which it was comprised (European American, 68%; Asian American, 12%; African American, 10%; Hispanic, 8%; Native American, 2%; other, 1%); males (51%) slightly outnumbered females (49%). Students in high CGCP schools also represented mainly large (total enrollment of 500 or more students, $n = 1,391$ or 46%) schools, with fewer medium (total enrollment of 366 to 499 students; $n = 1,295$, 43%) and small (total enrollment of 1 to 365 students, $n = 341$, 11%) schools compared to both the total sample and the comparison group (non-GCGP schools). Students in these high-implementation schools represented rural ($n = 743$, 25%), suburban ($n = 1,487$, 49%), and urban ($n = 797$, 26%) areas of the state and reported an average of 37% of their students eligible for a federal lunch assistance program for economically disadvantaged pupils.

Instrumentation

The Comprehensive Guidance & Counseling Programs and Student Success in Washington State Elementary Schools Telephone Survey was constructed by the researchers for this study. The questionnaire, orally administered to the respondents over the telephone, consists of simple items that solicit various background (e.g., current educational position, full time equivalent, age, gender, ethnicity, academic degree, years as a school counselor, years in current position) and school (e.g., location [urban, suburban, or rural], grade levels served, total caseload) data.

If the school or district had a CGCP in place, which was largely aligned with the standard Gysberian-type (Gysbers, 2001; Gysbers & Henderson, 2000), school personnel answered these survey items as well:

1. What was the program's origin?
2. What is the level of district-wide implementation (i.e., across all elementary schools, in counselor's school only, or across multiple schools but not in all)?
3. How long (in months and years) has the program been in use?
4. What developmental phase was the program currently operating in (a. Planning, b. Designing, c. Implementing, or d. Evaluating)?
5. Rate on a seven-point Likert scale (a) your level of involvement with the CGCP (1, not involved, to 7, very involved), (b) your perception of the importance of a CGCP within the district (1, not important, to 7, very important), and (c) the level of the positive impact the CGCP has made on students' academic performance (1, no impact, to 7, significant impact).

The Iowa Tests of Basic Skills-Form M (ITBS) are a series of norm-referenced achievement measures designed to provide a broad assessment of student progress in basic academic skills. It is administered annually to Washington State's 3rd, 6th, and 9th grade students. The well-established and widely used group-administered test battery has produced internal consistency and other reliability coefficients in the satisfactory range of low .70s to mid .90s (Hoover, Hieronymus, Frisbie, & Dunbar, 1996). In addition, numerous research studies have generally confirmed the validity of the ITBS (see Riverside, 1997, for a literature review).

The *Washington Assessment of Student Learning (WASL)* is a relatively new criterion-referenced test (CRT) group-administered annually to Washington's fourth, seventh, and tenth grade students (Taylor, 2000). A modified Rasch model (Masters's [1982] partial credit scoring approach; see Taylor for details) was used in developing an equal interval scoring system, where a theta value (θ) was computed for each examinee and then transformed to a positive, whole number scale through a linear conversion procedure. The possible scale score range for the WASL's four subtests (Mathematics, Reading, Listening, and Writing) is 150 to 600. The general standard for passing the test is 400; however, this cutoff varies to some extent depending on the subtest and year of test administration. The actual range of scale scores in the content areas can also vary slightly each year.

Recently, Taylor (2000), one of the statistical specialists investigating the instrument, reported on the psychometric properties of the WASL administered to fourth-graders in 1999. The validity of the WASL scores was examined using the intercorrelations among WASL strand scores (r s ranged from .42 to .75) and an exploratory factor analysis. The latter analysis revealed three underlying dimensions, that is, language arts, mathematics, and writing (factor loadings ranging from .62 to .79; Taylor, 2000). Internal consistency reliability coefficients for the 1999 Grade 4 WASL were generally satisfactory for the Listening ($\alpha = .61$), Reading ($\alpha = .86$), Mathematics (α

= .88), and Writing ($\alpha = .81$) tests. Inter-rater reliability coefficients for the open-ended questions on the different subtests were high (.97 to .98). Since this CRT continues to be refined each year, the psychometric properties for the other versions of the WASL have not, at the time of publication, been reported in the professional literature or by the State of Washington's Office of the Superintendent of Public Instruction (OSPI).

Procedures

Telephone surveys were administered in the spring of 2001 by three trained confederates who were also school counseling doctoral students at a western Washington university. Essentially, those schools without an identified school counselor completed only the demographics part of the survey and were subsequently classified as a non-CGCP school. The rationale behind this assumption involved the recommended leadership of CGCP. The school counselor, in collaboration with other educators, largely facilitates the program (Gysbers & Henderson, 2000; Henderson & Gysbers, 2001). The remaining school representatives were queried further about whether the building had in place some type of a CGCP. If it was a "CGCP school," the respondent was administered the entire questionnaire. Where there was confusion about the data coding, the surveyors conferred with the primary investigators to resolve the issue.

Data for the 2000-2001 school year on the percentage of students eligible for a free or reduced cost school lunch, the school's enrollment, and the district's total enrollment were obtained directly from the Washington School Research Center's database. The Center received the information from OSPI officials. In addition, data on students' gender, ethnicity, number of years enrolled in the building, and number of years enrolled in the district were gathered from OSPI on the third and fourth grade students in those schools.

Students' 2000-2001 test scores from the ITBS and WASL were collected from the Washington School Research Center via OSPI. This data included Grade 3 ITBS Vocabulary, Comprehension, Reading, and Mathematics standard scores, and Grade 4 WASL Listening, Reading, Writing, and Mathematics scale scores.

Data Analysis

Telephone surveys were coded and tabulated and data were analyzed by the researchers and their assistants. To examine the parametric assumptions underlying the multivariate procedures, the data were checked for normality using standard procedures (Gall, Gall, & Borg, 2003; Green & Salkind, 2003; Grimm & Yarnold, 1995). Although the specific output is not reported here, Box's test of equality of covariance matrices and Levene's test of equality of error variance were computed. Given the large sample sizes and the reasonably normal distributions, parametric analyses were justified. Intercorrelations among the variables and hierarchical multiple regression (HMR) procedures were calculated as well. Because this document addresses only the potential differences between groups, the matrices and HMR results are not presented.

Using SPSS's (version 11) general linear model (GLM), the hypotheses were examined using a series of factorial multivariate analyses of covariances (MANCOVAs; see Green et al., 2000 and Tabachnick & Fidell, 2000, for details). The independent variables were: Group (participants in CGCP vs. non-CGCP schools), Length of Enrollment (i.e., length of time students were enrolled in the particular school), and Gender. The dependent measures were the student achievement ITBS or WASL test scores. In each analysis, the percentage of students receiving a free or reduced cost lunch was used as the covariate. This concomitant variable correlated largely in the moderate range with each dependent measure ($r_M = .35$).

RESULTS

The majority (54.6%) of the participating schools with high CGCP implementation used as their template the *Washington State Guidelines for Comprehensive Counseling and Career Guidance Programs from Kindergarten through Community and Technical College* (Coats et al., 1998). On average these schools had their CGCP in place for over 6.5 years ($M = 6.64$, $SD = 2.17$), almost double the amount of time the non-high usage or general CGCPs had implemented their programs ($M = 3.66$, $SD = 4.96$). The mean length of time respondents in the general CGCP group and high CGCP sample worked in their current positions were 4.96 and 5.46 years, respectively, and their total number of years of educational service were comparable ($M_s = 9.4$ and 10.5 years, respectively). All counselors in CGCP schools generally viewed themselves as moderately to highly involved in their program. For example, the mean rating for counselors in the high-usage CGCP subsample was 6.27, as opposed to 5.85 for the general CGCP group. The perceived levels of CGCP importance and student impact were similar as well, ranging in the moderate to high levels ($M_s > 5$).

The magnitude of the average intercorrelations among the dependent variables was in the moderate to strong range. For instance, for the entire Grade 6 sample, the mean Pearson correlations, ranged from .20 (ITBS school environment scores) to .62 (ITBS achievement subtests). For the third and fourth grade students, the correlations among the covariate and the dependent measures were on average .58 and .43, respectively.

Means and standard deviations were calculated by Group (CGCP vs. non-CGCP), Length of Enrollment, and Gender for Grade 3 ITBS standard scores and Grade 4 WASL scale scores. In addition, means and standard deviations were computed by Group (high CGCP vs. non-CGCP), Length of Enrollment, and Gender for the Grade 3 ITBS standard scores and Grade 4 WASL scale scores. Some preliminary trends are discernable. For example, students enrolled for several years in high usage CGCP schools seemed to have performed better on various achievement tests than those pupils in non-GCCP buildings. Gender differences and interaction effects among factors appear to have emerged on several dependent variables as well.

In order to address the two research hypotheses, the following inferential statistics are reported by grade level. Most notably, we anticipated that students in Grades 3 and 4, who were attending CGCP schools with at least five years of practice (i.e., high usage CGCP schools), would produce significantly higher achievement test scores than comparable children in non-CGCP schools. In other words, it was expected that the Group X Length of Enrollment interaction would be significant for each dependent variable. The Gender and Year of Enrollment main effects and the other interactions (e.g., Gender X Year of Enrollment) were of lesser import in this study.

Grade 3. To examine the initial part of Hypothesis 1, a 2 (Group: CGCP vs. non-CGCP) X 4 (Length of Enrollment) X 2 (Gender) MANCOVA with the poverty index as a covariate was computed on Grade 3 ITBS Vocabulary, Comprehension, Reading, and Mathematics standardized test scores. The statistical procedure produced significant ($p = .00$, $\eta_p^2 = .00$) main effects for Group (favoring the non-CGCP sample on all dependent measures), Length of Enrollment (i.e., the longer the enrollment, the higher the test scores), and Gender. Furthermore, for Gender, only ITBS Vocabulary score was nonsignificant ($p > .10$), with the girls scoring significantly higher than the boys on the Comprehension and Reading subscales; whereas, the males did significantly better than the females on the Mathematics test. The Group X Length of Enrollment and Group X Gender interactions were significant ($ps = .00$, $\eta_p^2 = .00$) across the four ITBS Grade 3 subtests. While the latter interaction is not particularly germane to the study, the former shows, not surprisingly, that the longer the students in either group remain in their schools, the higher their test scores. Interestingly, across the four content areas, students in CGCP schools consistently scored lower than pupils in the non-CGCP buildings, but the performance gap disappears gradually over time such that by about the fourth year of enrollment, students' mean test scores in both groups are virtually identical.

A 2 (Group: high CGCP implementation vs. non-CGCP) X 4 (Length of Enrollment) X 2 (Gender) MANCOVA with the poverty index as a covariate generated a significant main effect for Length of Enrollment across the dependent measures ($ps = .00$, $\eta_p^2 = .01$) and a significant Gender effect for ITBS Comprehension ($F = 5.81$, $p = .02$, $\eta_p^2 = .00$) and Mathematics ($F = 14.11$, $p = .00$, $\eta_p^2 = .00$) subtests. Similar to the results above, these indicate the longer the students in either sample remain in their schools, the better their performances. The significant Gender effect showed that females significantly outperformed the males on Comprehension and males did better than females on Mathematics. The Group X Length of Enrollment interaction effects for Vocabulary, Comprehension, Reading, and Mathematics scores were significant ($ps = .00$, $\eta_p^2 = .01$), where students who were enrolled for several years or more in high usage CGCP schools scored significantly higher on these ITBS measures than comparable students in non-CGCP schools. (See Figures 1, 2, 3, & 4).

Figure 1. 3rd Grade ITBS Vocabulary subtest. Group x Length of enrollment interaction.

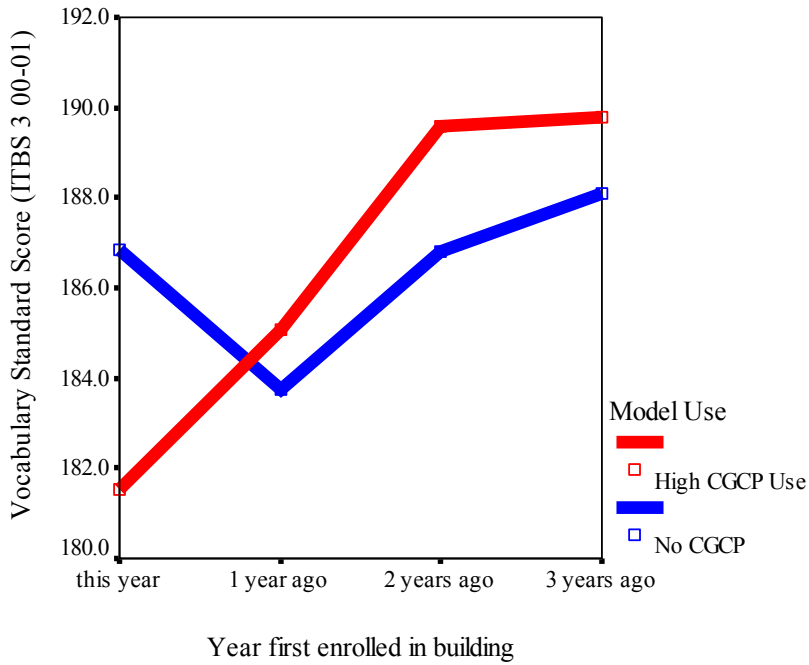


Figure 2. 3rd Grade ITBS Comprehension subtest. Group x Length of enrollment interaction.

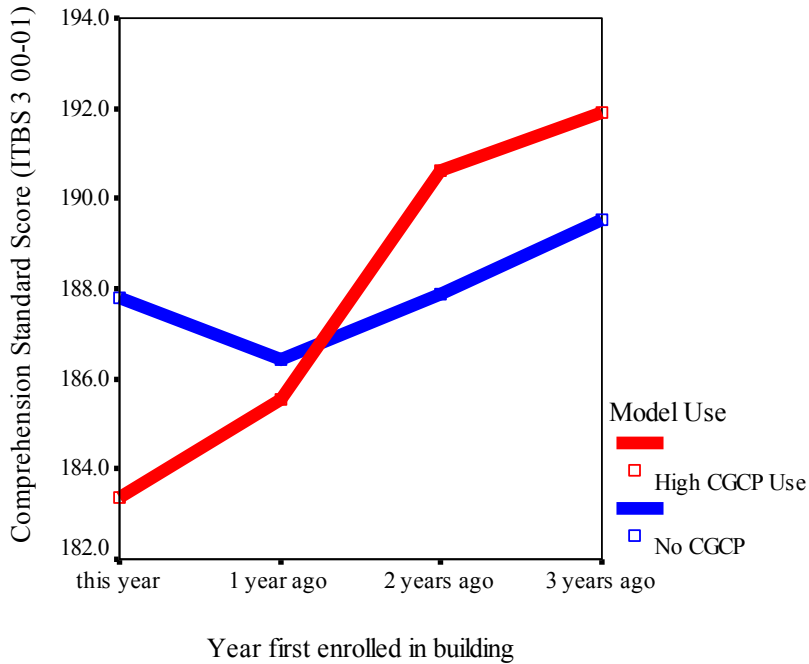
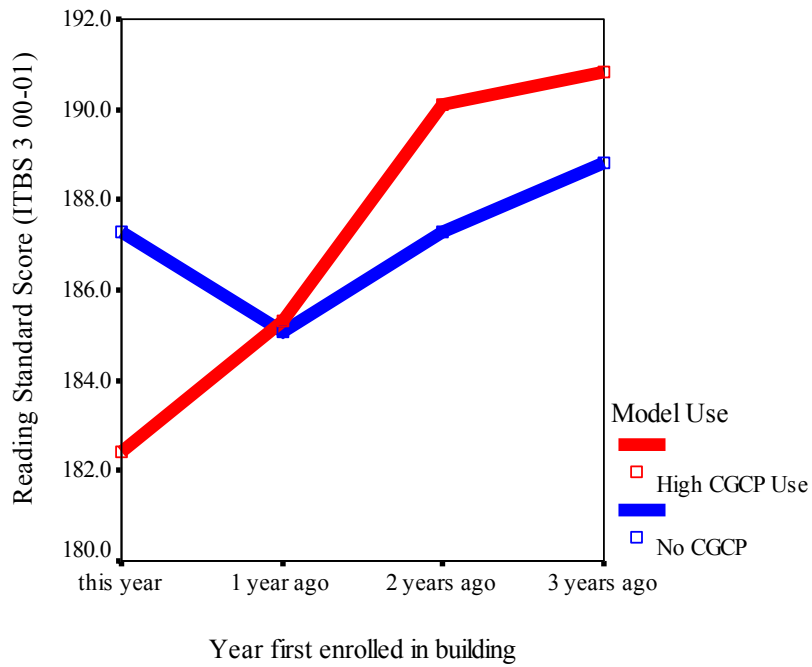
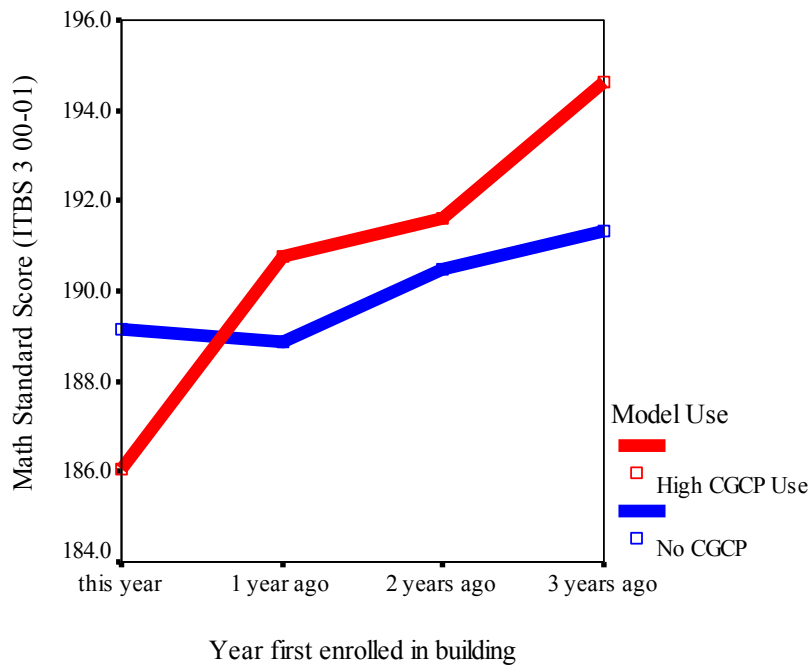


Figure 3. 3rd Grade ITBS Reading subtest. Group x Length of enrollment interaction.**Figure 4.** 3rd Grade ITBS Math subtest. Group x Length of enrollment interaction.

Grade 4. Similarly, a 2 (Group: CGCP vs. non-CGCP) X 5 (Length of Enrollment) X 2 (Gender) MANCOVA with the percentage of students receiving a free or reduced cost lunch as a covariate was computed using Grade 4 WASL Listening, Reading, Writing, and Mathematics scale scores as dependent variables. Significant main effects favoring the non-CGCP sample on all dependent measures were found for Group ($p_s = .00, \eta_p^2 = .00$) and Length of Enrollment ($p_s = .00, \eta_p^2 = .01$). Additionally, a significant Gender effect favoring the girls for the WASL Reading ($F = 133.20, p = .02, \eta_p^2 = .00$) and Writing ($F = 321.62, p = .00, \eta_p^2 = .03$) measures were found. The MANCOVA also yielded significant Group X Length of Enrollment interactions for Grade 4 WASL Listening ($F = 4.91, p = .00, \eta_p^2 = .00$), Reading ($F = 3.81, p = .00, \eta_p^2 = .00$), and Mathematics ($F = 3.60, p = .00, \eta_p^2 = .00$) scale scores. These interactions reflect those reported for the Grade 3 ITBS data, in that, for Grade 4 WASL Listening, Reading, and Mathematics scores, students in CGCP schools consistently scored lower than pupils in the non-CGCP buildings in the first few years of school enrollment, but the initial significant mean differences diminished over time. By the fourth year of attendance, students' scores in the high-implementation CGCP group were on par with the performances of the non-CGCP participants.

A 2 (Group: high CGCP implementation vs. non-CGCP) X 5 (Length of Enrollment) X 2 (Gender) MANCOVA with the poverty index as a covariate was generated. The analysis indicated a significant Group effect for Grade 4 WASL Writing scale scores, $F = 4.54, p = .03, \eta_p^2 = .00$. The high-implementation CGCP students significantly outperformed those participants in the comparison group. Like the earlier MANCOVAs, Length of Enrollment was a significant main effect across each of the WASL subtests ($p_s = .00, \eta_p^2 = .01$), where students who were enrolled the longest in their particular school outperformed all others on each of the dependent measures. Significant Gender effects were also found for Listening ($F = 4.78, p = .03, \eta_p^2 = .00$), Reading ($F = 51.65, p = .00, \eta_p^2 = .01$), and Writing ($F = 141.66, p = .00, \eta_p^2 = .02$) subtests. The girls had significantly higher achievement than the boys on the Reading and Writing WASL tests, whereas the boys produced superior mean Listening scores than their female counterparts. Finally, as with the third grade students attending a high implementation CGCP school, those Grade 4 pupils enrolled for multiple years in the same high usage CGCP school significantly outperformed comparable children in non-CGCP schools. Significant Group X Length of Enrollment interaction effects for Grade 4 WASL Listening ($F = 7.54, p = .00, \eta_p^2 = .01$), Reading ($F = 4.73, p = .00, \eta_p^2 = .00$), and Mathematics ($F = 3.87, p = .00, \eta_p^2 = .00$) scale scores were found. (See Figures 5, 6, & 7).

Figure 5. 4th Grade WASL Listening subtest. Group x Length of enrollment interaction.

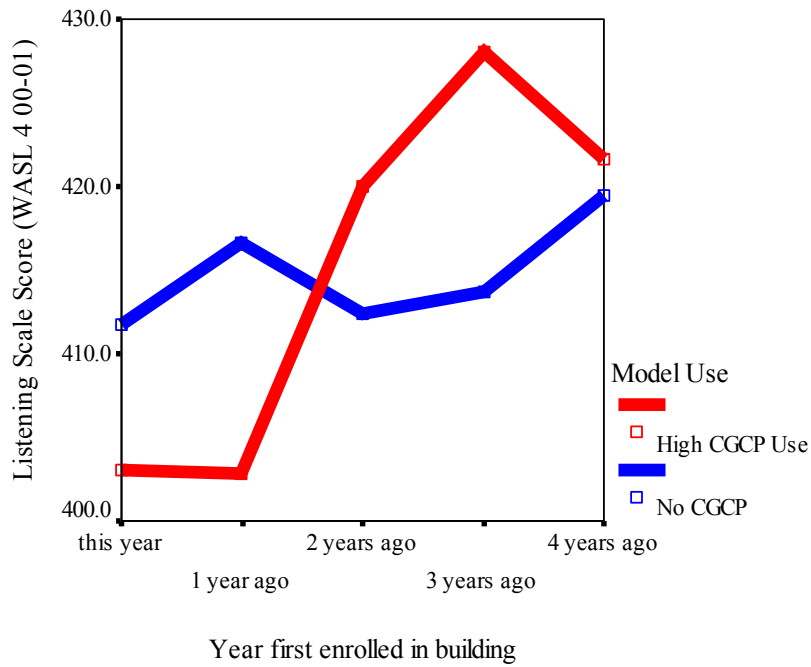


Figure 6. 4th Grade WASL Reading subtest. Group x Length of enrollment interaction.

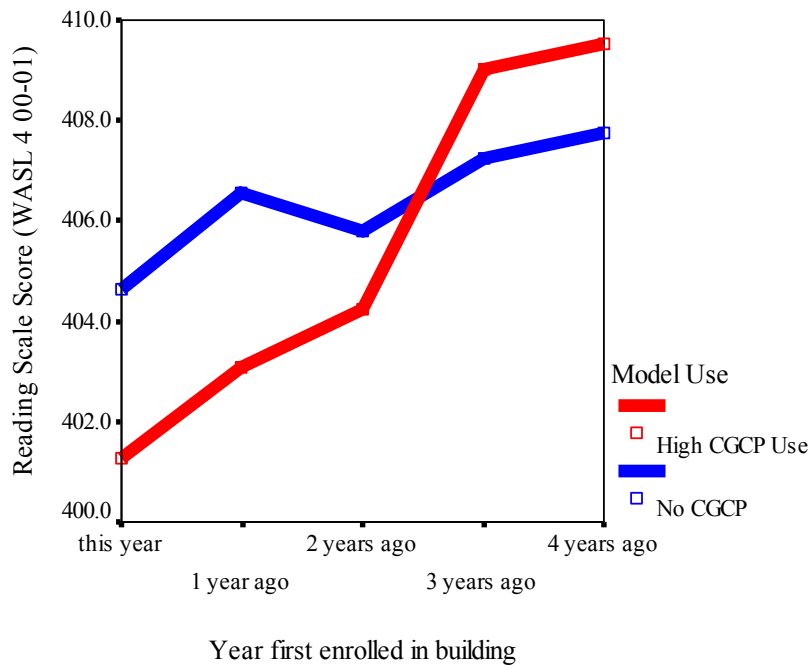
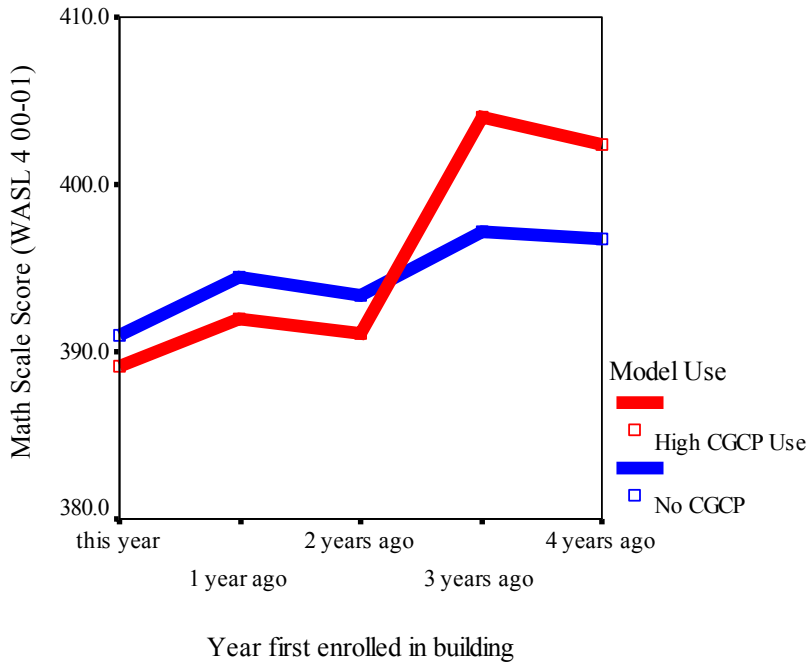


Figure 7. 4th Grade WASL Math subtest. Group x Length of enrollment interaction.



To summarize the most relevant findings, as measured by the Grade 3 ITBS and Grade 4 WASL test scores, students in their initial CGCP school enrollment years generally produced significantly lower achievement scores than those students attending schools with no systemic guidance and counseling program. As such, it is not altogether surprising that the significant interaction between Group and Length of Enrollment on various Grade 3 and 4 achievement measures generally favored students in schools with no program. However, as students in both groups remained in their buildings for multiple years, the achievement disparity between them became nonsignificant. Moreover, the significant interaction between Group and Length of Enrollment indicated that over time, students in high usage CGCP schools performed significantly better than did students in non-CGCP schools on the Grade 3 ITBS Vocabulary, Comprehension, Reading, and Mathematics, and Grade 4 WASL Listening, Reading, and Mathematics assessments. The Gender main effects for Grades 3 and 4 were somewhat consistent across achievement dimensions. Females tended to do better on the verbally-loaded tests (Reading and Writing), while the boys seemed to outperform girls on the mathematics tests.

DISCUSSION

The principal aim of this study was to examine whether students attending elementary schools with fully implemented comprehensive guidance and counseling programs would significantly increase their academic achievement over and above those children enrolled in non-CGCP buildings. Since there have been no other CGCP studies published with a similar participant base and methodology, it is difficult to draw any firm long-term conclusions. Nonetheless, the results do provide some causal comparative evidence for the research hypothesis.

Specifically, this investigation appears to support the notion that younger children (Grades 3 and 4, ages 8 to 10) may benefit academically, whether they are economically disadvantaged or not, by attending for several years elementary schools with a well functioning comprehensive guidance and counseling program. These students seem to do better on norm-referenced and criterion-referenced measures of reading, writing, and mathematics than their peers in schools without any systemic guidance and counseling program. It also appears that even when children (a) attend a school with a less than totally engaged comprehensive program and (b) have significantly lower initial academic achievement than similar pupils in non-CGCP schools, these CGCP children over a few years tend to close the achievement gap. These findings extend the somewhat dated research reviewed in Glosoff and Koprowicz (1990) and Whiston and Sexton (1998). These writers generally concluded that children are helped academically and interpersonally by attending schools with elementary school counselors in place.

Over the past decade or so, multiple CGCP studies conducted with middle/junior and senior high school students (e.g., Gysbers, 2001; Lapan, 2001) have been published in refereed journals. Gysbers concluded after reviewing the empirical evidence:

[W]hen certified professional school counselors have the time, the resources, and the structure of a comprehensive guidance program in which to work, they contribute to positive student academic and career development as well as the development of positive and safe learning climates in schools. (p. 103)

The differences, however, between the research cited, for example, in Gysbers (2001) and the current investigation not only concern the age range of the samples, but also their design and foci. As mentioned above, the empirical studies conducted in Missouri were largely correlational and prediction focused in design, rather than, as in the current study, directed at examining group differences among CGCP and non-CGCP schools across an array of cognitive and noncognitive measures. Thus, the evidence provided here augments the Missouri research and should encourage those scholars who advocate for school counseling programs to promote academic and nonacademic gains in students (e.g., House & Hayes, 2002; Lapan et al., 2002; Paisley & House, 2003).

Implications for Schools and School Counseling

The research presented in this document lends itself to some recommendations for school practice, especially in the area of guidance and counseling. It appears obvious that school counselors would do well, in collaboration with other building and district-wide personnel, to design, implement, and further refine their comprehensive programs so that all children are adequately served. Continued collaboration, as encouraged by, for example, Keys and her colleagues (Green & Keys, 2001; Keys & Bemak, 1997; Keys et al., 1998; Keys & Lockhart, 1999) and others (e.g., Rowley, 2001; Sink & Yillik-Downer, 2001) should be facilitated by the administrative staff. Ongoing evaluation is also needed to ensure that the program is fostering relevant outcomes (Lapan, 2001).

Research Limitations

Studies tend to have problematic elements and this investigation is no exception. As such, the major limitations are discussed in this section. First, self-report survey data used in this study may bias the findings. Second, since the magnitude of the effect sizes (partial η^2) were modest at best (Green & Salkind, 2003), the practical value of the results may be lessened. Third, the very large sample size and the relative increase in statistical power contributed to producing significant group differences. Fourth, the WASL is a relatively new CRT and its psychometric properties have yet to be firmly established in the literature. Fifth, the poverty index used is less than optimal. Finally, causal attributions cannot be asserted given that the data were derived *ex post facto*. Even though these caveats will influence the validity of the findings, the efficacy of district- and statewide comprehensive programs can be enhanced by the suggestions outlined in the previous section.

Suggestions for Future Research

The current study is a first of its kind to document significant differences in academic achievement between students who attend elementary schools with strong comprehensive programs and those without. Further clarification is needed in those “high” achieving CGCP elementary schools to ascertain which factors explain the most variance in academic performance and perceptions of school climate. Consequently, once these dimensions are better understood, they could be implemented in “underachieving” CGCP schools. Subsequent research should determine whether the positive student outcomes are similar between disparate subgroups of students (e.g., majority vs. minority children or regular education vs. special education students). Finally, potential gender differences on various CGCP student competencies may need to be further explored.

Conclusion

The findings from this CGCP study and those discussed in previous articles (e.g., Borders & Drury, 1992; Gysbers, 2001; Lapan, 2001), provide guidance personnel with a corpus of evidence that provisionally supports the usefulness of their systemic programs to augment the educational goals of schools. Hopefully, the results documented here will

be sustained in other states and at disparate grade levels. Even though our results are hopeful, we believe CGCP leadership teams should target those evaluative dimensions in which valuable data (e.g., truancy rates, number of discipline referrals, short-term outcomes from guidance and counseling interventions) can be more readily collected by very busy school personnel. Raising the goal too high and hastily based on the results of several positive empirical studies, particularly in terms of promising significant achievement gains in CGCP schools, is not altogether defensible. More workable approaches to program evaluation as suggested by Hughes and James (2001) and Schmidt (1984, 2000) are important sources for school counselors to initially consider. These writers suggest that school counseling programs should help facilitate measurable changes in the schoolchildren, but the assessment outcomes and tools need to be tailored to the specific contexts from which the modifications derive.

In summary, the current study reveals that early elementary-age students enrolled for several years in well entrenched CGCP schools can produce significant achievement gains over and above those children attending non-CGCP schools. It is perhaps tempting for elementary school counselors, in response to mounting external pressures, to reprioritize program outcomes, focusing more on academic achievement than those less measurable and “marketable” student competencies (e.g., multicultural and critical thinking skills, citizenship/character development). Acquiescing to the educational agenda of the “back to basics” policymakers, ahead of a strong CGCP research base, seems to put school guidance and counseling personnel in the awkward position of asking more from their programs than they can be reasonably expected to deliver.

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