PERCEIVED READINESS OF JAMAICAN COMMUNITY COLLEGE STUDENTS FOR POSTCOLLEGE GOALS

by

DAWN V. SMITH-HENRY

(Under the Direction of Jay W. Rojewski)

ABSTRACT

Concerns have been raised about how effectively Jamaica's community colleges prepare students for academic transfer and career transition. This survey study examined the extent that involvement, personal characteristics, and college-related variables predicted students' perceptions of their readiness for postcollege goals. The study investigated 11 predictors—class involvement, involvement in extracurricular activities, age, gender, employment status, family responsibilities, mother education, father education, enrollment, academic major, satisfaction with college—and two outcome variables, i.e., perceived readiness for work, and perceived readiness for higher education.

The study's conceptual framework was developed from Astin's (1984) student involvement theory, Pace's (1984) student development model, and Tinto's (1975, 1993) student departure theory. Based on these theories, it was hypothesized that class and extracurricular involvement would be important factors in predicting student perceptions of readiness for work and higher education goals. Descriptive statistics and regression analyses were used to analyze data from a criterion-based convenience sample of 554 full- and part-time final-year students. The students were enrolled in four majors—business, hospitality, computer, architecture and construction—at seven public community colleges in Jamaica.

Higher education was the chief postcollege goal. Involvement variables were the best overall predictors of perceived readiness for higher education and work. Class involvement was a stronger predictor than extracurricular involvement. Student age and mother's education were the only statistically significant personal characteristics variables. Satisfaction with college was the only significant college-related variable for predicting perceptions of readiness for higher education. Based on these findings, recommendations for practice, policy, and future research were proposed.

INDEX WORDS: Academic Transfer, Career Transition, Involvement, Postcollege Goals, Perceived Readiness, Jamaica Community College

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DEDICATION

This document is dedicated to past and present students of Jamaica's community colleges, including those who have successfully transferred into higher education and the workforce, those preparing for these transitions, and those who have felt disenchanted by obstacles in the tertiary education system. It is a call to united action by all who have a vested interest in tertiary education—community college and university educators, administrators, program planners, policy makers, employers—to remove the barriers to a meaningful and relevant tertiary education experience. Such action is needed if Jamaicans are to be effectively and efficiently prepared for the workforce.

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CHAPTER 1

INTRODUCTION

Context of the Study

The call for an enhanced tertiary (i.e., postsecondary or higher) education and training system in Jamaica is both timely and urgent, especially in light of Jamaica's 2010-2011 overall *Global Competitiveness Index* (GCI) ranking of 95 out of 139 countries (World Economic Forum, 2010). This latest ranking suggests that Jamaica's global competitiveness has not improved since the 2009-2010 report in which the economy was ranked 91 of 133 countries (World Economic Forum, 2009). Both reports identified higher education and training as one of 12 pillars of global competitiveness critical for economies to advance beyond simple production and products. The 2010 report concluded that of 15 "most problematic factors for doing business [in Jamaica, an] inadequately educated workforce" (p. 194) was among the top five. However, globalization "requires economies to nurture pools of well-educated workers who are able to adapt rapidly to their changing environment" (World Economic Forum, 2009, p. 18).

To address the country's economic and social ills, the Jamaican government launched a 25-year national development plan focused on helping Jamaica achieve developed status by 2030. The national development plan—*Vision 2030 Jamaica*—advocates continuous improvements to Jamaica's tertiary education system. The goal is to ensure that "adequate and high quality tertiary education is provided with an emphasis on the interface with work and school" (Planning Institute of Jamaica [PIOJ], n.d., p. 16). Concerns have also been raised about deficiencies in education and training in the wider Caribbean region. A World Bank (2005)

report linked the Caribbean's economic and social ills to inadequacies in the region's education sector. Wolff (2009) called for the strengthening of Caribbean postsecondary education and training institutions, such as community colleges, to enable them to respond more effectively to the region's pressing economic and social challenges. Pointing to the changing world economy and increased demand for higher-order skills, Wolff advocated immediate reform rather than waiting for improved quality at lower levels of the education sector.

Demographics

Jamaica's eight primarily commuter colleges have main and subsidiary campuses in most of the island's 14 parishes (see Appendix A). Two of the larger colleges are situated in the country's urban centers—one in the capital city, and the other in Montego Bay, the second city. A third college is located in close proximity to the capital city. The other five colleges are located in traditionally farming-oriented rural parishes. With the country's economy heavily dependent on the service sector, tourism may also be an important source of livelihood for residents in these parishes (Jamaica Tourist Board, n.d.). Kingston, the capital city, has a population of 667,778—nearly one-third of Jamaica's estimated 2.7 million people (Statistical Institute of Jamaica [STATIN], n.d.a.). There is ongoing migration from rural parishes to Kingston, and to a lesser extent Montego Bay, a major tourist resort, in search of employment and better educational opportunities. Montego Bay has a population of approximately 82,000. Jamaica's economic underperformance and low economic growth have led to the displacement of workers (PIOJ, 2010). Unemployment is pronounced among youth and women (McArdle, 2004; STATIN, n.d.b.).

Development and Features of Community Colleges

Community colleges are nontraditional, relatively new postsecondary educational institutions with multiple goals and missions, constantly evolving to meet the needs of diverse populations (Bahruth & Venditti, 1990; Cohen & Brawer, 2008; Phillippe & Sullivan, 2005). The important pioneering work of the American community college movement cannot be disputed. Developed outside of the mainstream of formal education, the community college movement in America began in the late 19th to early 20th centuries, fuelled by rapid expansion in secondary and higher education, demand for trained workers, and a campaign for social equality (Cohen & Brawer, 2003, 2008). These educational, economic and social factors have also propelled the development of community college models globally (Raby & Valeau, 2009). This is true of the Caribbean region where the development of community colleges was driven by the inability of the regional university to meet increased demands for tertiary education (Chevannes, 2005). The introduction of the community college concept in Jamaica and the wider Caribbean more than 40 years ago was influenced by community college models in the U.S. and Canada (Grant-Woodham & Morris, 2009; Wolff, 2009).

Typically, community colleges are 2-year postsecondary education institutions whose primary mission is to prepare students for direct entry into the workforce (Cohen & Brawer, 2003, 2008; Laanan, 2000). Over time, the community college mission has expanded and has become more complex (Bryant, 2001, Laanan, 2000; Phillippe & Sullivan, 2005). Two distinguishing features of community colleges make them attractive to potential postsecondary education students. First, they provide educational access to large numbers of persons, despite having to confront skepticism about their quality and place in higher education (Townsend & Twombly, 2001). Second, their tuition is generally lower than tuition charged by other postsecondary institutions (Council of Community Colleges of Jamaica [CCCJ], n.d.c; Phillippe & Sullivan, 2005). In the Caribbean, cost is related to equality of access to tertiary education (Miller, 2000). Not only is postsecondary education costly in Jamaica, but student loans are also limited and not easily accessed. Another important feature of the community college is the increasing diversity of the student population. This diversity is exemplified in the age range, gender composition, race/ethnicity, social status, and varying goals of students enrolled in these institutions (Bahruth & Venditti, 1990; Bryant, 2001; Cohen & Brawer, 2003, 2008; Coley, 2000; Laanan, 2000). In addition, the diversity of community colleges is demonstrated in their size and location—factors which may influence their mission. Small rural colleges would be expected to have a different focus from larger colleges situated in major cities.

Purpose Statement

Issues of educational quality are particularly relevant to Jamaica's eight public community colleges. The community colleges have traditionally occupied a place near the bottom of the country's higher education hierarchy—below the universities, teacher-training colleges, and some private colleges. Consequently, although Caribbean governments have embraced community colleges as legitimate institutions, some educators still consider them to be mediocre education institutions (Grant-Woodham & Morris, 2009). Jamaica's public universities do not readily accept community college transfer students in their upper division classes (University of the West Indies [UWI] Research and Policy Group, 2005). Therefore, after completing a 2-year associate degree program at the community college, a transfer student may only be exempted from the first year of a 4-year baccalaureate degree program. Based on enrollment status at the 4-year institution, a student may spend a total of five or more years pursuing a baccalaureate degree. This situation has resulted in "tremendous waste of personal and public resources [and] much frustration for the individual" (Stennett, 2005, p. 333). Consequently, the Jamaican colleges are challenged by academic transfer and curriculum articulation issues. These concerns also confront American community colleges (Ignash & Townsend, 2001).

In response, community colleges in Jamaica and across the Caribbean have continued to lobby for greater acceptance of their programs by the universities (Grant-Woodham & Morris, 2009). The Jamaican colleges have made direct representation to local universities via speciallycommissioned hearings and review meetings. Caribbean community colleges have also adjusted their programs to conform to changes in the higher education system. Moreover, the Jamaican community colleges have been increasing education offerings to meet rising demand for postsecondary education and increased competition from foreign institutions with local-based campuses (Marshall, 2007). Primarily associate degree-granting institutions, the Jamaican community colleges have added bachelor's degrees to their program offerings. Currently, five of the eight colleges offer one or more of four bachelor degree programs (CCCJ, 2009a). By offering baccalaureate degrees, the community colleges are increasing higher education options to graduates of lower-level programs who desire to "jump-start [their] education and career goals" (Adamson, n.d., para. 1). In addition, all associate degree programs include a work experience or internship component intended to prepare students for business and industry (CCCJ, n.d.a).

To address concerns about program and institutional quality, the Jamaican community colleges have sought and received accreditation for several programs from the University Council of Jamaica (UCJ), the national tertiary accreditation body. Accreditation is the most popular form of quality assurance, and it benefits the tertiary education sector as well as the country (London, 2005). As of February 2010, seven of the eight community colleges have had a number of their programs accredited. While larger colleges have received accreditation for approximately six to nine programs, most of the smaller colleges have each had at least two programs accredited (UCJ, n.d.a.). To date, one college has not had any of its programs accredited, although it is currently offering core associate degree programs that are accredited at other community colleges. However, this college has review visits pending. The process of accreditation is ongoing and several colleges either have review visits or accreditation pending as they seek to have programs re-accredited and/or receive initial accreditation (CCCJ, 2009a). Although the eight community colleges collaborate to offer common programs, they also develop unique programs that meet the education needs of their communities. This flexibility is generally accepted as an advantage. Yet, students want assurance of program quality, typically associated with program accreditation (UCJ, n.d.b.). Moreover, programs unique to individual colleges may take longer to be accredited than those offered jointly with other community colleges. According to the UCJ, accreditation indicates confidence in an institution's mission and goals, quality of faculty, students, academic programs, and appropriateness of resources. Decisions to accredit or reaffirm program accreditation are primarily based on confidence that an institution is providing quality education.

Students play a "profoundly important role in shaping the ethos, culture, and orientation of colleges and universities everywhere" (Altbach, 1994, p. 203). Ultimately, they are the subject of education policies, and are directly affected by curriculum practice and review. Jamaica's community colleges have been striving to improve their image in the tertiary education sector and to remain competitive by vigorously pursuing program accreditation and articulation with higher education institutions (Grant-Woodham & Morris, 2009; Marshall, 2007). In 1999, the

Tertiary Level Institutions Unit of the UWI approved advanced placement for the CCCJ's associate degree in business studies program (Roberts, 2003a). Yet, more than 10 years later, students still do not make a smooth transition into higher education institutions (Leo-Rhynie, 2007; Stennett, 2005) and they may not be adequately prepared for industry (Wolff, 2009; World Bank, 2005). Gauging student perceptions of the total community college experience and their preparedness for post-college goals is warranted. Educators need to understand those for whom they design education products and services, if these are to be effectively and efficiently utilized. Research in this area is also very limited. Therefore, the purpose of this survey study was to examine perceptions of Jamaican community college students about their readiness for immediate postcollege goals. Specifically, the study investigated the extent to which involvement in class and college extracurricular activities, personal characteristics, and college related factors predicted students' perceived readiness for identified post community college goals.

Research Questions

Six research questions guided this study. They were:

- 1. What are the personal and college-related characteristics of Jamaican community college students, and what goals do they intend to pursue after completing current studies at the community college?
- 2. What forms of class-related and college extracurricular activities do Jamaican community college students actively and regularly engage in?
- 3. What work- and college-related tasks do Jamaican community college students feel most ready to perform?

- 4. What aspects of their college experiences are Jamaican community college students most satisfied with?
- 5. To what extent does involvement in classes and college extracurricular activities *independently* and *collaboratively* explain Jamaican community college students' perceived readiness for work and for higher education, *respectively*?
- 6. What are the best overall predictors of perceived readiness of these Jamaican community college students for work and for higher education, *respectively*?

Conceptual Framework

The conceptual framework for this study was based on a synthesis of three related theories: Astin's (1984) student involvement theory, Pace's (1984) student development and college impress model, and Tinto's (1975, 1986, 1993) student departure theory. All three theories are related in that they focus on student involvement and integration into the academic and social spheres of college as predictors of positive outcomes of the collegiate experience. Therefore, the study's premise was that class and extracurricular involvement at Jamaican community colleges were very important factors which, combined with specific background and college-related characteristics, might account for students' perceived readiness for higher education and employment goals. Evidence accumulated over two decades supports the claim that student achievement at college depends considerably on student engagement and the quality of effort expended in educational and non-educational activities (Friedlander, Murrell, & MacDougall, 1993; Pascarella & Terenzini, 1991, 2005).

Student Involvement Theory

To explain persistence in college among traditional students, Astin (1984) proposed the student involvement theory, based on a 1975 longitudinal study of college dropouts. Earlier,

Astin (1970) had conceptualized an input-environment-outcome (I-E-O) model to explain student development in higher education. Inputs refer to characteristics and traits students take to college, the *environment* includes academic and social activities at college, and *outcomes* comprise measures of student achievement. Student involvement theory was therefore an outgrowth of the I-E-O concept used to explain persistence in college among traditional students. The essence of this theory is that college student learning and persistence are dependent on the degree of student involvement in academic and nonacademic pursuits (Astin, 1985). Astin's (1975) study found that holding a part-time on-campus job facilitated persistence and institutional commitment, but retention suffered if a student had a full-time off-campus job. Furthermore, Astin (1984) distinguished a highly involved student from one who is typically uninvolved—the former is often on campus, spends much time studying, is actively involved in campus activities, and frequently communicates with peers and faculty. By contrast, an uninvolved student is more likely to neglect studies and spend less time on campus, resulting in infrequent participation in campus activities, and reduced contact with faculty and peers. Astin (1993) revisited student involvement theory and concluded that the college environment was important to student satisfaction and persistence. Responding to criticisms of student involvement theory, Tanaka (2002) defended its robustness in predicting a wide range of factors influencing student outcomes.

Student Development and College Impress Model

Pace (1984) outlined a model for studying student development that underscores the impression college makes on the overall student experience. The *student development and college impress* model underscored Pace's conviction that college does make an impression on students (Pace, 1979). The model has three basic premises: (a) the college experience comprises

all activities and events encountered in college, (b) aspects of the environment and the quantity and quality of student effort influence the nature or interpretation of these activities and events, and (c) combined effects of environment and effort result in student development and college impress. According to Pace's (1984) model, students enter college with varying competencies and personal traits that are influenced by experiences at college. These experiences might include academic activities, extracurricular events, and interactions with faculty and peers. The combined experiences are further shaped and given meaning by the breadth and depth of student effort and the impression made by academic, vocational, and social environments. Central to Pace's model is the concept of *quality of effort*, defined as "the amount, scope, and quality of effort [students] invest in their own learning and development, and specifically in using the facilities and opportunities that are available in the college setting" (Pace, 1984, p. 6). Like Astin, Pace was convinced that all learning and development required students to make an investment of time and effort. Thus, quality of effort was a key construct in two instruments developed and/or influenced by Pace—the College Student Experiences Questionnaire (CSEQ) and the Community College Student Experiences Questionnaire (CCSEQ; Pace, 1982). The instruments measure student experiences in three areas: benefits from attending college, amount of time and effort expended in various activities, and perceptions of the college environment (Kuh, Pace, & Vesper, 1997). Findings from administrations of the CSEQ and the CCSEQ support the premise that what students learn in college is significantly influenced by the amount of effort they invest in the experience. More specifically, results from a pilot study of the original CCSEQ survey led Pace to conclude the applicability of the quality of effort construct to community college students (Pace, 1992, 2001).

Student Departure Theory

Essentially, Tinto's (1975, 1986, 1993) student departure theory states that commitments to one's educational goals and to the institution are shaped by the congruence between student characteristics and the institution's academic and social systems. Therefore, a student who is deeply committed to completing college and to the institution has a greater likelihood of persisting to graduation. Tinto (1987) compared colleges to human communities in terms of the way they both influenced membership. As learning communities, colleges provide opportunities for students to form supportive peer groups that go beyond the classroom (Tinto, 1998). In this way, learning is enhanced as students spend more time together outside of class actively engaged in course-related activities. However, Tinto (1982) conceded that his model was limited in that it did not account for external factors that may impact student participation at college, nor did it adequately distinguish between behaviors leading to transfer as against those resulting in permanent withdrawal from college. Perhaps to compensate for these gaps in student departure theory, Bean and Metzner (1985) advocated a nontraditional student attrition model that deemphasized social integration on campus, while focusing on factors in the external environment that may exert greater influence on older college students. Researchers have recognized the utility of the student attrition model in accounting for the academic integration of nontraditional students (Braxton, Shaw Sullivan, & Johnson, Jr. 1997; Webb, 1989). Yet, the weakness of this model may lie in the absence of an alternate approach to social integration appropriate to nontraditional students.

In the 1993 revision of departure theory, Tinto added three phases—*separation*, *transition*, and *incorporation*—to explain the process of student integration into academic and social systems at college. In order to effectively transition into the new community, i.e., college, the student must disassociate from certain norms of past communities (Milem & Berger, 1997). A student at the incorporation stage has fully integrated into the norms and behaviors of the new community. Despite limitations, Tinto's integration model has exerted considerable influence in empirical research (Kuh, Bean, Hossler, & Stage, 1989; Milem & Berger, 1997), and has been effectively employed to study student outcomes for over a decade (Cabrera, Nora, & Castaňeda, 1993; Pascarella & Terenzini, 2005).

Application of Theories

Involvement in college is important to student persistence and goal achievement (Pascarella & Terenzini, 1991, 2005). Theories of student involvement, quality of effort, and student departure focus on the student as an active participant at college, and assign a prominent role to the context in which a student participates. Likewise, all three theories assert that benefits to be gained from college are proportional to the quality and quantity of effort expended by the student. Besides, Astin's student involvement theory considers the influence of external factors such as employment on student involvement. Conversely, Pace's quality of effort construct is an appropriate measure of the community college experience (Douzenis, 1996; Ethington, Guthrie, & Lehman, 2001; Friedlander et al., 1993; Pace, 1984; Pace, Friedlander, Lehman, & Murrell, 1990). Together, these three theories captured variables deemed important in investigating the perceived readiness of Jamaican community college students for post-college goals.

Variable Selection

Selection of outcome and predictor variables for this survey research was primarily based on student involvement and integration theories, and on review of the community college literature. Postcollege goals were operationalized as work and higher education. Thus, the study utilized two outcome variables—perceived readiness for work, and perceived readiness for higher education. Three sets of predictor variables—student involvement, personal characteristics, and college-related factors—were examined. The selected predictor variables were: (a) involvement in class, (b) involvement in extracurricular activities, (c) age, (d) gender, (e) enrollment status, (f) employment status, (g) family responsibilities, (h) time on campus, (i) parent education, (j) academic major, and (k) satisfaction with college.

Post community college goals. The complex mission of American community colleges includes preparing students for employment and for higher education opportunities (Bailey, Jenkins, & Leinbach, 2005; Cohen & Brawer, 2003, 2008; Ignash & Townsend, 2001; Laanan, 2000). These are also key functions of Jamaica's community colleges (Grant-Woodham & Morris, 2009; Miller, 2000; Walsh, 2005; Wolff, 2009). Community colleges enable individuals to pursue these goals by providing a curriculum that is both academically and vocationally oriented (Laanan, 2000). To ensure educational success, meet workforce mandates, and address the lifelong learning demands of varied student groups, community colleges need to offer comprehensive services constantly adjusted to target specific needs (Phillippe & Sullivan, 2005).

Involvement in class and extracurricular activities. The quality and quantity of student engagement in academic and college extracurricular activities is positively related to educational achievements, individual and social growth, and positive perceptions of the collegial experience (Cohen & Brawer, 2003, 2008; Davis & Murrell, 1993; Douzenis, 1996; Ethington & Horn, 2007; Ethington & Polizzi, 1996; Friedlander & MacDougall, 1991; Glover, 1996; Polizzi & Ethington, 1998; Swigart & Murrell, 2001). These findings also support the inferences of several involvement and engagement theorists (see Astin, 1984; Pace, 1984; Tinto, 1993). However, the nature of involvement may differ for traditional and nontraditional students (Kasworm, 2003, 2005). The traditional or younger college student typically engages in class-related and campus

social activities, which define the college experience. For the nontraditional or adult student, opportunities for collegiate social integration may not exist (Bean & Metzner, 1985). In such a case, engagement in a connected classroom becomes the defining feature of the collegiate experience.

Age, gender, and enrollment. The average age of Jamaican community college students has not been confirmed. However, most students enrolled in full-time (i.e., day) programs are likely of traditional age (Buckle, 2010). Those enrolled in part-time (i.e., evening) programs may be nontraditional-aged. Generally, college students older than 25 are termed *nontraditional*, while those below age 25 are of traditional age (Bahruth & Venditti, 1990; Spitzer, 2000). Fulltime Jamaican community college enrollees take between 15-18 course credits per semester and part-time students generally take a maximum of 12 course credits each semester (CCCJ, 2009b). Over the years, the Jamaican community college sector has been experiencing steady growth in enrollment (Robotham, 2000). Less rigorous entry requirements and lower fees at the community college may be attracting an increasing number of students just out of high school. Additionally, high schools in some parishes have discontinued upper division pre-university courses, and these students transfer directly into the community college. For the 2009-2010 academic year, Jamaica's community colleges enrolled an estimated 12,106 students, comprising 8,032 females and 4,074 males (Ministry of Education and Culture [MOEC], Jamaica, 2009). This represents a 1.5% decrease in reported student enrollment for 2008, and a 10% increase over total community college enrollment for 2007. In 2007, total tertiary enrollment in Jamaica was well below the regional average of 34% (United Nations Educational, Scientific, and Cultural Organization Institute of Statistics [UNESCO-UIS], 2009). In addition, gender disparity in favor of females is a noted feature of Jamaica's postsecondary education system (Bailey, 2004; CCCJ, 2009a;

Evans & Burke, 2006; Hausmann, Tyson, & Zahidi, 2009; Miller, 2000). This trend of female dominance is noticeable in community college student enrollments over the last five years (CCCJ, 2009a; 2010).

Employment status, family responsibilities, and time on campus. Findings from U.S. postsecondary education research have confirmed that full-time employment while enrolled and family responsibilities may pose substantial risks to persisting in college (American Council on Education [ACE], 2003; Horn & Premo, 1995). Nontraditional students enrolled in public community colleges and other 2-year private institutions are particularly susceptible to these risks. They are required to balance multiple roles—as spouses, parents and full-time employees—while pursuing a college education. Unlike their younger peers, these students may be unable to spend extra time on campus, and are therefore less likely to be involved in extracurricular activities. Time on campus is important if students are to maintain supportive relationships with faculty and peers (Astin, 1984; Tinto, 1998). When extenuating circumstances arise, nontraditional students may be forced to postpone or totally abandon school. To date, no published study has examined the effects of employment status, family responsibilities, or time on campus on Jamaican tertiary education students.

Parent education. A report commissioned by the U.S. Department of Education concluded that college enrollment is strongly linked to parents' education, even when other factors are considered (Choy, 2001). The report findings indicated that as parents' education increased, so too did involvement in their children's education, resulting in a greater likelihood of the student enrolling in postsecondary education. Moreover, students from lower-income families tended to be over represented among those whose parents had low levels of education. No studies of the social background of Jamaican community college students have been conducted. However, in view of the biases inherent in the tertiary education sector, these colleges may primarily enroll students from lower socioeconomic classes (Miller, 2000). On the other hand, students enrolled in the region's universities may disproportionately represent higher socioeconomic classes.

Academic major. In addition to core associate degree programs, several community colleges now offer shorter (i.e., certificate and diploma) programs (CCCJ, 2009a). Altogether, the colleges offer 14 associate degree programs comprising about 400 course subjects, and four bachelor degree programs. Participants in the current study were enrolled full- and part-time in bachelor and associate degree programs drawn from four majors—business, hospitality and tourism, computer, and architecture and construction.

Satisfaction with college. Satisfaction with college implies acceptance of and integration into the academic, social and physical environments of college. Studies of student satisfaction with the college experience consistently indicate that satisfaction is more likely to be influenced by the college experience than by students' background or personal characteristics (Astin, 1993). Student satisfaction with college should not be ignored because the college environment determines the quality of the undergraduate experience (Kuh, Kinzie, Buckley, Bridges, & Hayek, 2007).

Importance of Study

This study has importance for practice, policy and further research across the Jamaican community college sector. First, study findings will be beneficial to on-going program accreditation efforts and institutional self-study processes at individual colleges. Additionally, results of the study can provide the basis for professional development activities and influence dialogue among community college teachers and program coordinators. Such dialogue may include reviews of teaching and evaluation techniques, strategies for improving classroom involvement, and teacher-student interactions within as well as outside of the classroom.

Second, colleges may be encouraged to initiate or expand collaborative arrangements with local higher education institutions, and with industry. These arrangements should enable students to make a seamless transition from the community college into higher education institutions and to receive authentic work experience or internship opportunities.

Third, the study may have implications for revision of existing community college policies. Student assessment of academic and non-academic experiences may provide a point of reference for college presidents and principals, CCCJ administrators, curriculum planners, program coordinators, academic advisors, and counselors. Revising student-centered policies might impact practice, resulting in more student-friendly academic and social environments.

Fourth, colleges may be further motivated to seek innovative ways to obtain human, financial and physical resources needed to improve existing student services and facilities.

The fifth and final reason why this study is important is that it attempted to supplement community college research. To date, no published study has comprehensively investigated student perceptions of readiness for employment and higher education goals after completing studies at the community college. One earlier study (Stewart, 2006) examined student, teacher, and employer perceptions of the utility of a previously offered program. Two other studies (i.e., Buckle, 2010; Marshall, 2007) explored community college transfer effectiveness and the accreditation process, respectively. It is hoped that this study will stimulate further community college research in Jamaica and the wider Caribbean. Generally, study findings may complement the scholarly literature about involvement, integration, and the education and career goals of community college students.

CHAPTER 2

REVIEW OF LITERATURE

This chapter focuses on literature illuminating the effects of student involvement on higher education and employment goals of community college students. The chapter highlights four main areas, including a global perspective of the community college mission, tertiary education in the Caribbean, history and development of the community college movement in Jamaica, and empirical studies of student preparedness for post community college goals. The empirical research section is organized under the following subheadings: post community college goals; student involvement/quality of effort; age, gender and enrollment status; employment status, family responsibilities and time on campus; parent education; academic major; and satisfaction with college.

Global Overview of Community Colleges

The United States has been the world leader in higher education developments for many decades, but during the past decade other countries have followed in their lead, while breaking new ground to address their unique challenges (Boggs & Irwin, 2009). As demand for flexible postsecondary education options increases globally (Alfred, Ewell, Hudgins, & McClenney, 1999; Elsner, Boggs, & Irwin, 2008; Raby & Valeau, 2009), traditional 4-year education institutions are hard-pressed to satisfy these urgent needs. Consequently, this urgency is being answered by "an explosion of community college models that provide educational opportunities and alternative pathways for students who do not fit the traditional higher educational profile and are often excluded from getting such education" (Raby & Valeau, 2009, p. ix). The increasing

demand for postsecondary education is fueled by globalization as well as local challenges. Accordingly, virtually every country has or is contemplating a community college system characterized by flexible curriculum and service to local populations. Cohen and Brawer (2003) acknowledged that countries in Europe, Asia, Africa, and South America have established institutions that provide functions similar to the American community colleges. However, they emphasized that "no other countries but the United States, (and to some extent Canada) have formed comprehensive community colleges" (p. 26). Yet, based on case studies presented in their 2009 book, Raby and Valeau identified five recurrent themes that define community college models worldwide: academic, philosophical, economic, institutional, and community reforms. Academic reforms embrace the community college curriculum, teaching strategies, and program accreditation. Philosophical reforms are linked to sociocultural and political reforms, and speak to the community college as an equal access and second opportunity institution. Raby and Valeau (2009) also assessed global adoption of community college systems as motivated by a desire for economic reforms; and they noted that many case studies also focused on the nature of institutional reforms. Finally, community reforms refer to the community-oriented nature of community colleges, which enables response to local needs and empowerment of local citizens.

Community colleges are defined by their response to the local environments they impact, and thus go by different names in different regions (Elsner et al., 2008; Raby & Valeau, 2009). For example, community colleges across the globe are also called technical colleges, polytechnic institutions, institutes of technology, and junior colleges. Yet a common mission—to provide the education and skills training necessary to positively influence economic and social improvements in their respective territories—unites these institutions. The U.S. community college model is considered most influential. In some cases, this model has been "so extensively adapted to fit local needs that an educator from a U.S. community college might not recognize it" (Halder, 2008, p. 275) except for the fundamental features of open access, workforce training, and credit transfer. Despite the dominance of the U.S. community college model, several countries have developed unique, exemplary models. One such example is Denmark whose vocational education and training (VET) system has reportedly influenced education initiatives and policy in the U.S. (Elsner et al., 2008). Through various education reforms, Denmark's VET system has experienced continuous improvements. Students are able to access multiple pathways from varying education institutions at different levels: vocational, technical, adult, and university education, and their goals are purposefully matched with the various options available. Denmark's VET system (Bagley & Rust, 2009). These schools provide opportunities for students to explore subjects not directly related to their course of study for a year, without having to worry about grades.

Tertiary Education in the Caribbean

In the Caribbean, the term *tertiary education* is used interchangeably with *higher education* to indicate education and training provisions in third level (i.e., postsecondary) institutions (Howe, 2003). Tertiary education, therefore, includes university- and college-level programs, technical and vocational education and training, professional and paraprofessional training, and continuing education programs. Consequently, tertiary education fosters intellectual, social, personal, professional and occupational growth (Henry-Wilson, 2005; Roberts, 2003a). Howe reported that the current structure of tertiary education in the Englishspeaking Caribbean comprises approximately 150 tertiary-level institutions (TLIs). Of this number, more than 60% are either national or are publicly supported, 30% are private, and the rest are privately owned with some support from government. An increasing number of offshore distance providers, some of dubious quality, offer online programs in the region (Brandon, 2003). The University of the West Indies (UWI) performs a regional role, serving 14 Caribbean territories. With campuses in Jamaica, Trinidad and Barbados, the UWI is the largest university in the Caribbean. Diversity in the Caribbean tertiary education sector is reflected in the student population, staffing, and mission of the various institutions (Roberts, 1999, 2003a, 2003b). This diversity has created challenges related to employability of graduates; competition within the sector; partnership arrangements (i.e., equivalence, credit transfer, articulation, and accreditation); technology; availability and use of resources (Leo-Rhynie, 2007).

Jamaica's tertiary education sector is relatively small, with approximately 40,000 students enrolled at various colleges and universities (Ministry of Education, Jamaica, 2009). Yet, over the last 15 years the sector has experienced rapid growth, resulting in diversified program offerings and delivery modes and many entrance and exit points for students (Leo-Rhynie, 2007). There is also greater flexibility between programs and/or between education and employment. Almost half of the approximately 50 TLIs in Jamaica are public, and 90% of programs in the non-university institutions are below bachelor's degrees (Martin & Bray, 2009). Fifteen colleges—including community colleges, teacher training institutions, and business and management schools —provide non-university education and training (Nkrumah-Young, Huisman, & Powell, 2008). Unlike universities which are primarily 4-year institutions, colleges typically offer 2-year curricula.

History and Development of Community Colleges in Jamaica

Background and Rationale

The genesis of the community college movement in Jamaica can be traced to recommendations from a working party on postsecondary education appointed in 1974 by the Ministry of Education (Whyte, 1983). The working party was mandated to review the status of the existing tertiary level system, with respect to (a) its capacity to meet Jamaica's manpower need; (b) inflexible entry requirements into existing institutions; (c) high failure rate among students taking the British Council's Advanced General Certificate Examinations-GCE Alevels; (d) limitations of the curriculum, partly due to the absence of vocational input; and (e) a lack of "orientation towards community and national consciousness" (Stewart, 2006, p. 72). The committee recommended changes to the structure of the GCE A-level program. These changes included a broader curriculum with non-academic options, as well as a focus on inculcating national pride. Whyte reported that the community college was viewed as the institution "that would best convey the spirit of these recommendations and at the same time form a more appropriate sequel to the grades 10 and 11 programmes of secondary schools" (1983, p. 151). Thus, community colleges were established in Jamaica to achieve specific educational and social objectives (Walsh, 2005). Two roles were emphasized: preparation for higher education and for the workforce.

Earlier, Jamaica's movement toward political independence had been accompanied by an increasing awareness of the importance of developing human resources and the economy through education (Whyte, 1983). Therefore, the post-independence government targeted expansion of all levels of education from 1966–1980. However, impacted by slavery and colonialism, Jamaica's education system—particularly postsecondary education—has always favored the

privileged few (McArdle, 2004; Miller, 2005). This elitist orientation characterized the UWI, which was opened in Kingston, Jamaica, in 1948. Ironically, the UWI was established to expand access to higher education in the region. Cobley (2000) recalled that by the 1960s there was widespread disenchantment as critics complained that the university had only succeeded in educating the elites, program offerings were limited and "the structure of its degrees was locked into British models of doubtful utility" (p. 17). Thus, it became urgent for Caribbean territories to set up their own domestic institutions. Subsequently, by the 1990s there was an expansion of higher learning institutions, especially community colleges, in English-speaking Caribbean countries (Howe, 2003). In 1990, the Association of Caribbean Tertiary Institutions was formed to integrate and facilitate equal access to the varied Caribbean higher education initiatives.

Growth and Development

Jamaica's community college system is one of the fastest growing segments within the country's higher education sector (Robotham, 2000; Stewart, 2006). Over the last 20 years, the Jamaican colleges have significantly diversified and increased tertiary education opportunities to the population (Walsh, 2005). In 1974, Excelsior Community College in Kingston and Knox Community College in Manchester were founded, second in the region to Barbados Community College, which was opened in 1968. In 1975, two additional community colleges were established in Jamaica—Montego Bay Community College in St. James and Brown's Town Community College in St. Ann (Whyte, 1983). Today, the eight public community colleges comprising the Council of Community Colleges of Jamaica (CCCJ) have main and secondary campuses in at least 10 of the island's 14 parishes. They account for 30% of Jamaica's TLI student population (MOEC, Jamaica, 2009). The community colleges are open access institutions that provide a bridge between secondary education and university (Grant-Woodham & Morris,

2009). Traditionally, their highest offering is the associate degree, originally developed to facilitate smooth transfer into the third year of baccalaureate degree programs at local and foreign universities (CCCJ, n.d.a.). However, the seamless transfer anticipated by a two-plus-two arrangement did not materialize.

It may be argued that the recent development of bachelor's degrees by Jamaican community colleges was directly linked to the limited success of the two-plus-two mission. The larger colleges offer bachelor degree programs, with majors in business studies, management information systems, and hospitality and tourism management. Together, the community colleges offer "more than 400 courses in 12 Associate degree programmes and 4 bachelor's degree programmes" (Adamson, n.d., para. 1). Originally designed as a 3-year/6-semester program, the associate degree is now offered as a 2-year or 4-semester program for students enrolled in full-time (day) classes and as a 6-semester program for part-time enrollees. On the other hand, full-time students may complete the bachelor's degree over eight semesters (i.e., four years) while part-time students typically complete an associate degree at the community college may transfer directly into year three of a community college-developed bachelor's degree program for an additional two years to the degree.

Mission and Roles

The CCCJ received formal recognition by an Act of Parliament in 2001(CCCJ, n.d.b; Grant-Woodham & Morris, 2009). However, the Council had been in existence since 1981, spearheaded by the college principals who initiated various collaborative efforts (Walsh, 2005). The 2001 Act officially established the Council as a statutory agency under the aegis of the Ministry of Education, to oversee and harmonize activities of the colleges (CCCJ, n.d.b.). The
Act discusses the Council's three functions that span the entire community college network: (a) regulating curriculum development and review, and assessing student progress; (b) promoting awareness of Jamaica's community colleges; and (c) facilitating collaborative arrangements and professional development activities. The CCCJ's influence does not extend beyond Jamaica and no similar organizations exist elsewhere in the Caribbean (Grant-Woodham & Morris, 2009). The Council also ensures that common standards of quality are maintained within the community college network. Both Miller (2000) and Roberts (2003a, 2003b) recognized the diverse mission and roles of Caribbean community colleges. Miller noted that the founding of community colleges in the Caribbean served a variety of needs, including preparation for university study, training for middle level/supervisory positions in industry, continuing/remedial education, and personal development. Meanwhile, Roberts (2003a) suggested that the community college's focus on adult and continuing education was obvious from enrollment patterns in various departments.

Caribbean community colleges were designed to be community-focused institutions "expected to respond to the postsecondary education needs of the people in their vicinity" (Grant-Woodham & Morris, 2009, p. 302). However, unlike community colleges in Barbados and the British Virgin Islands, Jamaica's community colleges were not always multipurpose institutions. Rather, their mission expanded over time from a binary form, intended to provide another chance for high school students initially unsuccessful in secondary-level examinations to prepare for university education, to their current status as multipurpose models. Grant-Woodham and Morris (2009) linked the change in mission to several factors: drastic changes in the tertiary education sector, community demands, institutional necessity, economic and political influences, and global developments.

Challenges and Opportunities

The complexity of the community college mission, evidenced in students' varying reasons for attending college, amplifies the challenge of defining educational attainment (Bailey, Jenkins, & Leinbach, 2005; Bryant, 2001). Moreover, the quality of an institution's mission and goals, faculty and students, programs, level and appropriateness of resources all impact stakeholder perceptions and the recognition conferred on an institution (University Council of Jamaica [UCJ], n.d.b.). With so many tertiary education options available to students today, identifying quality education and institutions is paramount (Grant-Woodham & Morris, 2009). While accreditation and quality are not synonymous, accreditation implies that recognition will be accorded to the institution. Community colleges in Jamaica and the wider Caribbean might also be challenged by the enrollment of large numbers of students whose prior academic attainments have been marginal (Miller, 2000). Miller based his assumption on studies that indicated "strong positive correlation between social class and performance in the GCE and CXC examinations" (Miller, 2000, p. 133). However, he acknowledged the need for empirical research to corroborate this premise. Jamaica's community colleges also lack resources needed to support vocational programs (Wolff, 2009). Consequently, only about 4% of community college programs are vocationally-oriented (O'Lawrence, 2008). Finally, insufficient government funding and pricing programs below market cost (Grant-Woodham & Morris, 2009) are other major challenges that confront Jamaica's community colleges. Pricing programs below market cost may provide access to a larger segment of the postsecondary population, but it also restricts profitability of the colleges and ultimately impacts the quality of resources available.

Yet, despite the obvious challenges, Jamaica's community colleges have the potential to stimulate economic growth and to become more influential in the higher education sector.

Colleges have the flexibility to develop programs and discontinue others in response to market demand (CCCJ, n.d.a.). Programs are "tailor-made for industry, and therefore contain a high work experience component" (CCCJ, n.d.a., para. 9). Likewise, current articulation and collaborative arrangements with the UWI, Caribbean Examinations Council, and Heart Trust National Training Agency (Heart Trust NTA) may be seen as opportunities to expand the CCCJ's sphere of influence in the higher education sector. The colleges also have arrangements with the Association of Community Colleges of Canada, the American Association of Community Colleges, and with City College in the United Kingdom (Grant-Woodham & Morris, 2009). Some of these partnerships have fostered student and faculty exchange, and have promoted cooperation in scholarly pursuits.

Empirical Research

Research into Jamaica's tertiary education system is limited, with few published studies of the country's community college sector. To date, three studies have been found (Buckle, 2010; Marshall, 2007; Stewart, 2006). Of the three, Stewart's 2006 study had greatest relevance to this study. However, Buckle's (2010) and Marshall's (2007) dissertation studies also informed this research. Consequently, the empirical research discussed in this section was primarily drawn from studies of U.S. community colleges. Most of these studies utilized student involvement and integration theories. Additionally, the American institutions confront challenges similar to those faced by Jamaican community colleges. These challenges include skepticism about their quality and place in higher education (Cohen & Brawer, 2003, 2008; Stewart, 2006; Townsend & Twombly, 2001). Both systems have also pursued a common tripartite mission: academic transfer, workforce preparation, and remedial/lifelong learning (Amey & VanDerLinden, 2002; Grant-Woodham & Morris, 2009; Townsend & Twombly, 2001). Despite negative perceptions, community colleges today are visible and respected postsecondary institutions (Tollefson, 2009). The community college is also the lead workforce training agency in at least 19 states in the U.S. (Jenkins & Boswell, 2002).

Post Community College Goals

The increasing diversity of the community college student population will continue to challenge U.S. community colleges for the next 20 to 30 years, and influence student post college goals (Phillippe & Sullivan, 2005). While the magnitude of student diversity may not be as pronounced in Jamaican colleges, similar effects may be produced. Although community college students report varying reasons for enrolling in postsecondary education, transfer to a 4year institution is one of the chief goals (Horn, Peter, & Rooney, 2002). Community colleges also prepare students to enter or advance in the workforce by providing them with requisite skills (Lohman & Dingerson, 2005). Based on their extensive post-1990 research, Pascarella and Terenzini (2005) arrived at several conclusions related to the transfer and career preparation functions of U.S. community colleges. These findings also have implications for the Jamaican community college system. Earlier, Pascarella (1997) had confirmed that of approximately 2600 studies reviewed for the 1991 synthesis he co-authored with Terenzini, no more than 5% of the studies focused on community college students. However, the 2005 text placed greater focus on phenomena specific to U.S. community college student populations than did the earlier work. Yet, several findings in the recent research are reportedly consistent with pre-1990 projections.

For example, Pascarella and Terenzini (2005) found that starting a bachelor's degree at a community college instead of a 4-year college decreased the chances of ultimately obtaining the degree by 15-20%. Besides, enrolling at a 2-year college could reduce students' degree goals by as much as 40%. However, once the community college student transferred to a 4-year institution

they were as likely to earn a bachelor's degree as their counterparts who started at a 4-year college or university, although they typically took longer to complete the degree. Pascarella and Terenzini also reported that students who started their postsecondary education at a community college were more successful in transferring to academically discriminating 4-year colleges than they could have enrolled in upon completing high school. They found this to be particularly significant for students from poor families, or those with low performance levels. In terms of career goals, Pascarella and Terenzini found that initial attendance at a 2- instead of a 4-year college reduced the possibility of persistence in math, science, and engineering careers by highly competent minority students. Yet, initial attendance at a 2- instead of a 4-year college generally did not significantly affect later occupational status and earnings of individuals with similar abilities and educational achievement.

Using three data sources: the 1996/2001 Beginning Postsecondary Students Longitudinal Study (BPS), the 1988 National Educational Longitudinal Study (NELS) fourth follow-up, and the 1999- 2000 National Postsecondary Student Aid Study (NPSAS), Hoachlander, Sikora, and Horn (2003) investigated the goals, preparation, and outcomes of U.S. community college students. The BPS analysis sample was limited to students whose first experience of postsecondary education was at a community college. On the other hand, the NELS cohort comprised students who had enrolled in postsecondary education immediately after high school. The sample used for this study consisted of high school graduates in 1992 that first enrolled in a community college within two years of graduating from high school. Finally, the NPSAS survey consisted of a sample representative of the population of students enrolled in postsecondary education during the 1999- 2000 academic year. Students varied in age, date of entry into postsecondary education, and were at different stages in their studies. Findings from all three

data sets—BPS, NELS, and NPSAS—indicated that, despite varying educational goals, approximately 90% of community college students enrolled with the aim of obtaining formal credentials or transferring to a 4-year institution. Hoachlander et al. reported that about 51% of all community college students (BPS) and nearly 63% of the more traditional students (NELS), achieved successful outcomes "when success is defined as any degree attainment or 4-year transfer" (p. 12). Since two-thirds of American community college students are part-time enrollees, the average time taken to complete an associate's degree was three and a half years (as measured by BPS), and 44% of students pursuing bachelor's degrees were still enrolled after six years. During the 6-year survey period, approximately 29% of all first-time community college attendees transferred to a 4-year college or university, including about 50% of those with bachelor degree expectations. Roughly 80% of those who actually transferred had either obtained a baccalaureate degree or were still pursuing the degree six years after first enrolling in a community college. Many students who had left the community college without completing a credential reported positive employment experiences based on their postsecondary education. However, those who had received a credential were more likely to report favorable impacts than those who had not earned one.

Roksa and Calcagno (2008) examined the role of academic preparation in community college students' transition to 4-year institutions. The study utilized transcript data for 37,623 first-time, degree-seeking students enrolled in a college credit course at a Florida community college in fall 1998. Student enrollment was traced for 15 terms including fall, spring, and summer, through the summer of 2003. With the focus on transfer, the sample was limited to students who had completed no fewer than 12 non-remedial credits. The study addressed two main issues: the extent to which academically unprepared students were able to transfer to 4-year

institutions, and the role of successful completion of intermediate outcomes in facilitating transfer and reducing negative effects of inadequate academic preparation. Results suggested that roughly 20% of students considered unprepared for college-level work when they entered the community college transferred to a 4-year institution within 15 terms (five years). However, academically unprepared students trailed their more academically prepared peers, 34% of whom transferred within five years. Yet, successfully completing intermediate goals "such as passing college-level math and writing courses, meeting specific credit thresholds, and earning an associate degree" (p. 2) improved student chances of transfer. Roksa and Calcagno concluded that community colleges were limited in their ability to alleviate adverse effects of inadequate academic preparation on transfer. Successful completion of even the most demanding intermediate outcomes did not remove negative effects of being unprepared for higher education.

Townsend and Wilson (2006) utilized qualitative interviews to identify factors affecting the academic and social integration of students who had transferred from the community college to a large state research-focused university. The 19 transfer students were enrolled at the university during summer and fall 2004. Townsend and Wilson reported that most students perceived the community college had not adequately prepared them for transfer but that the university assisted with the transfer process. Responses also indicated that institutional differences (e.g., size and mission) adversely impacted student academic and social integration at the university. Based on the research, Townsend and Wilson made three recommendations for practice by community colleges and 4-year institutions. They were: (a) community colleges may need to provide more assistance to transfer students, at least initially, to help them better adjust to a new environment; (b) transfer students need to understand how the mission of a research university affects the behavior of faculty and students; and (c) student support staff at 4-year institutions may need to take responsibility for helping students integrate into the institution.

Studies by Buckle (2010) and Stewart (2006) provide useful insights into Jamaican students' post-community college education pursuits and stakeholder expectations, respectively. Buckle's study compared the academic performance of community college transfer students with that of native university students at the University of Technology, Jamaica. The transfer students had started baccalaureate studies at the community college under franchising arrangements between both institutions. The designated measures of academic performance were *GPA*, *time to degree* and *bachelor degree attainment*. The study population comprised an estimated 500 juniors—350 native university students and 150 community college transfers—enrolled as full-time students in the university's business and management faculty during the 2004-2005 academic year. From this population, a sample size of 200 (100 natives and 100 transfers) was chosen using stratified random sampling technique. The study found no significant difference between academic achievements of the two groups. Additionally, lower division GPA was found to be a key determinant in students' prospects of achieving the baccalaureate degree.

Meanwhile, Stewart (2006) investigated the quality of the 3-year Associate of Science Degree (A. Sc.) in Business Studies originally offered by Jamaican community colleges. Stewart defined *quality* as "fitness for purpose, that is, the extent to which the programme has fulfilled its stated purpose and has satisfied stakeholder expectations" (p. i). *Employability* and *transfer effectiveness* were the constructs used to define *fitness for purpose*. The study utilized a mixed methods approach to determine the extent to which the curriculum provided graduates with knowledge, skills, and qualities required by employers and higher education stakeholders. The community college student sample was drawn from four colleges, representing 23% of the total student population across all eight community colleges. The breakdown was as follows: 84 firstyear students, 59 second-years, and 64 students enrolled in the final year of their program. The study sample also included 56 graduates of the A Sc. in Business Studies program who had gained admission into the University of the West Indies (UWI) based on their associate degree qualifications, 60 students who had gained admission into UWI based on advanced level passes earned at a community college, and 60 students who had passed their advanced level exams at a high school. These community college and high school graduates were all enrolled in first-year social science courses from the1999/2000 through to the 2004/2005 academic years. Questionnaires were also distributed to lecturers who taught courses in the A. Sc. in Business Studies program at the four community colleges. Finally, four employers and four graduates of the A. Sc. program—one from each of the four colleges—were selected for case studies.

Stewart (2006) reported common agreement among stakeholders who expressed how highly satisfied they were with the program's effectiveness and utility. Although approximately 80% of student respondents assigned very high scores to both employability and transfer effectiveness constructs, in most instances employability was rated slightly higher than transfer effectiveness. Stewart also found no statistically significant difference in the average performance of students with associate degree credentials from the community colleges and those with GCE A' Level (i.e., advanced level) qualifications from traditional high schools, in their first semester at the UWI. Teachers and students were positive about the program's capacity to prepare students for employment, although the former were less specific about the extent to which the program provided knowledge and skills that could be effectively transferred. Previous work experience, enrollment reasons, future study plans, and school location were all found to influence student perceptions. However, school location reportedly had the greatest influence on student responses. The study also found a positive relationship between school location and prior work experience, with rural students tending to have worked for longer periods before entering the program.

Student Involvement/Quality of Effort

Findings from pre- and post-1990 research confirmed "one of the most unequivocal conclusions" (Pascarella & Terenzini, 2005, p. 602): the impact of college is chiefly ascertained by individual effort and involvement in the academic and nonacademic activities on a campus. Earlier, Friedlander and MacDougall (1991) arrived at a similar conclusion, emphasizing that student investment of time in coursework and college-related activities resulted in increased levels of academic attainment, personal development, and satisfaction with the college experience. The CCSEQ survey was administered to 1,765 students enrolled in various classes at a California community college. Students who used the library for research were more likely to report progress in independent learning, obtaining information, and pursuing ideas than those who did not. Progress in writing was linked to time devoted to writing activities, while perceived gains in awareness of cultural diversity and tolerance were related to contacts with students of varying backgrounds and perspectives.

Other empirical studies of outcomes from the community college experience support Friedlander and MacDougall's (1991) findings. Several of these studies utilized samples drawn from the CCSEQ database housed at the Center for the Study of Higher Education at the University of Memphis, Tennessee. Glover (1996) and Ethington and Horn (2007) analyzed data from the CCSEQ survey completed by community college students across the U.S. who planned to transfer to a 4-year college or university to complete a bachelor's degree. Whereas Glover's study analyzed survey data completed by more than 4,000 students from nine community colleges, Ethington and Horn's study utilized a sample drawn from 40 community colleges from fall 1999 to spring 2001. Results of both studies revealed that students who were more involved in college-related activities reported greater educational and non-educational achievements than their peers who were less involved. Glover's study found that students who were more involved in college activities reported more educational and non-educational benefits than those who were less involved. Ethington and Horn also found increased efforts in extracurricular activities to be significantly related to perceptions of growth and development.

Polizzi and Ethington (1998) analyzed data from the CCSEQ national database to investigate differences in the quality of student efforts in varied college experiences, and in perceived career preparation gains. An initial sample of 3,161 vocational students, described as those "enrolled in a vocational program and attending college to gain skills either for a new or a current job" (p. 42) was selected. The sample was reduced to 2,528 as only groups consisting of at least 200 respondents were chosen, in order to facilitate comparisons between four vocational groups: business, health, technical/communication and trade/industry. Students with missing items were also excluded from the sample, which further reduced the sample to 1,891 students. Polizzi and Ethington reported findings indicating differences among the vocational groups in effort expended in specific college experiences and in perceived gains in career preparation. Students in the health major, on average older than students in the other three majors, exerted the greatest quality of effort in all college activities, and perceived the greatest benefits in career preparation.

Meanwhile, Swigart and Murrell (2001) examined students attending a 2-year college to determine if race affected the quality of efforts exerted toward important educational goals and perceptions of academic and nonacademic gains. A sample of 268 African-American and 284

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Caucasian students was drawn from a larger national CCSEQ database collected from September 1999 through June 2000. Of the African-American students, 41% were male and 59% female, with 69% enrolled full-time (i.e., taking 12 or more credit hours). For the Caucasian students 38.5% were male, 61.5% female, and approximately 75% were enrolled full-time. Findings revealed differences in the relationship between quality of effort, student characteristics, and self-reported gains for both groups of students. For Caucasian students, self-reported gains were higher if they were full-time students but lower if females. Swigart and Murrell also reported greater gains for African-American students, manifested in more involvement toward completing important educational goals. Generally, results of these CCSEQ-based studies provide strong support for Pace's (1979) proposition that "student effort is the most important determinant of growth and development as a result of college attendance" (p. 194). Not only does student effort impact their growth and development, but it also determines educational and career outcomes (Davis & Murrell, 1993). Likewise, the more involved students are in varied college activities, the more positive their perceptions of the institution will be. These findings also support student involvement and departure theories.

The role of social interaction in student educational success at college is much debated. Such interaction—including participation in student support programs, cultural events, and peer tutoring—may be vital to the progress of students from disadvantaged groups (Chaney, Muraskin, Cahalan, & Goodwin, 1998). However, the engagement research studies cited so far have not distinguished between involvement of younger college students and that of adult students. Yet it is important to make this distinction since adult students may conceptualize and experience college participation differently from their younger peers (Kasworm, 2003, 2005). Using a qualitative case study approach grounded in social constructivist theory, Kasworm (2003) examined how adults conceptualized their classroom learning experiences. The research was part of a larger study that investigated adult collegiate participation and its relationship to work, family, and community life roles. Ninety adult undergraduates from six institutions—two private liberal arts colleges, two public community colleges, and two public universities—were selected to be part of the final interview sample. Criteria for selection included (a) at least 30 years old, (b) in good academic standing at their institution, (c) currently enrolled in a bachelor's degree or college transfer program at the community college, and (d) completed at least 15 hours of coursework beyond development studies. From the interviews, three key perspectives emerged that illuminated how learners construct meanings in the classroom: (a) the classroom as context for defining college, (b) viewing knowledge in terms of adult life roles, and (c) instructor actions and elements of program design.

In a follow-up study, Kasworm (2005) examined the nature of adult student identity in a intergenerational community college classroom. Based on data from an earlier study, the research focused on how adults defined classroom involvement, and perceptions of their engagement at college. As in the earlier study, purposeful sampling was used to select participants. A sample of 28 adult student interviewees was selected from two community colleges, one rural and the other urban. Study participants were diverse in academic status and in personal background characteristics such as gender, marital status, enrollment, and employment status. Kasworm suggested that three identity frames characterized adult students: "beliefs of age-appropriate societal norms for involvement in college, beliefs of academic competence based in age-related notions of academic performance, and beliefs of the ideal college student" (p. 8). Kasworm reported that adult student classroom involvement was characterized by one-on-one interaction with faculty, illustrated in asking and responding to faculty queries, maintaining eye

contact with faculty during lectures and producing quality class work. Active learning tasks in the college classroom may positively influence institutional commitment, and promote academic and social integration (Braxton, Milem, & Sullivan, 2000; Tinto, 1993).

Age, Gender, and Enrollment Status

An influx of females, minorities, students of nontraditional age, part-time students, students working full-time while enrolled, and students from lower-income households, have swelled community college enrollments (Altbach, 1994; Bryant, 2001; Cohen & Brawer, 2003, 2008; Coley, 2000; Horn, Nevill, & Griffith, 2006; Phillippe & Sullivan, 2005). The community college research literature distinguishes between traditional- and nontraditional-aged students (Bahruth & Venditti, 1990; Bryant, 2001). Typically, traditional-aged students are those under age 25, while nontraditional-aged students are those who are at least 25 years old. Statistics indicate that the average age of U.S. community college students is 28 (American Association of Community Colleges [AACC], n.d.). Spitzer (2000) conducted a study of 355 full-time undergraduates at a private liberal arts college to investigate the best predictors of college GPA and career decidedness for traditional and nontraditional students. The sample consisted of 267 students of traditional age (age 23 or younger) and 88 students who were 25 or more years old. The sample was 92% white and 8% Hispanic and African American, reflecting the ethnic composition of the campus. Data was obtained from several self-report questionnaires and a background information sheet. Spitzer reported that predictors of GPA (self-regulation, academic self-efficacy, social support) were consistent with literature. Besides, nontraditional students and females had higher GPAs and were more focused on career goals. They were found to be more motivated and self-regulated than traditional students who depended more heavily on the instructor. They viewed themselves as enhancing the learning process. Grimes (1995) found that

older students demonstrated stronger and more goal-focused study techniques than younger classmates. However, Boylan (2001) argued that students who return to college after being out of school for a number of years may be less prepared for college than traditional-aged students.

In a related study, Terenzini, Springer, Yaeger, Pascarella, and Nora (1996) investigated whether precollege characteristics and college experiences of first-generation students differed from those of traditional students, and the impact of any differences on specific education outcomes in the first year of college. First-generation students refer primarily to students who are the first in their families to attend college. The research was part of a 3-year National Study of Student Learning (NSSL) study of approximately 4,000 new students entering 18 four-year and 5 two-year U.S. colleges and universities in fall 1992. The current study had a sample of 2,685 students (825 first generation and 1860 traditional students) who had completed the first year of study. Findings indicated differences in both the precollege characteristics and college experiences of first-generation and traditional students. First-generation students were mainly female, older, tended to come from lower-income homes, of Hispanic origin, and initially had lower critical thinking skills. They also had lower degree goals, more dependent children and reported receiving less encouragement from family to attend college. However, first-generation students appeared more confident about career goals although they expected having to take a longer time to complete degrees.

Before 1978, fewer women than men attended college, but "by 2003, women were ahead, 58 to 42 percent" (Cohen & Brawer, 2008, p. 52). Each year since 1978, women in U.S. community colleges have earned more associate degrees than men. In fact, women are outperforming men in "high school grades, test scores, and college preparatory coursework" (Kuh, Kinzie, Buckley, Bridges, & Hayek, 2007, p. 23). Society's changing attitude toward

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women's roles in the workplace and the home, and relatively greater economic benefits as a result of college attendance, may be additional factors influencing the increased numbers of women attending American colleges.

The link between gender and participation is a characteristic feature of Caribbean education, where "girls are more highly represented in those sections of the secondary and tertiary levels of the education system that enhance the prospect of upward social mobility" (Miller, 2000, p. 135). This pattern of female dominance is especially evident in Jamaica's tertiary education sector (Miller, 2000; PIOJ, 2009; UNESCO-UIS, 2009). The 2009 Gender Gap report confirmed the ratio of females to males in postsecondary education in Jamaica as 2.29 to 1 (Hausmann et al., 2009). Females outnumber males in both full-time and part-time enrollments (Evans & Burke, 2006). Whereas most full-time students enroll in Jamaica's public institutions including community colleges, most part-time students are enrolled in private colleges. Gender differentiation also extends to Jamaica's community colleges (CCCJ, 2009a). Most recent community college enrollment statistics indicate that female students outnumber males by approximately 2 to 1(MOEC, Jamaica, 2009). To date, no published studies have compared the academic performance or persistence rates of male and female community college students in Jamaica.

Leppel (2002) used data from a 1990 BPS survey to investigate the progress of a group of 2,647 male and 2,737 female U.S. students who began postsecondary education during the 1989-1990 academic year. The study investigated factors influencing college persistence of men and women enrolled in baccalaureate degree courses. Initial results indicated no statistically significant difference in the persistence rates of men and women. However, when other factors were controlled, women's persistence advantage increased over men's—leading to Leppel's conclusion that characteristic differences between male and female students may affect persistence. Other findings indicated the combined effect of marriage and children was negative for both men and women and that being older also lowered persistence rates for both sexes.

Between 1970 and 1990, part-time undergraduate enrollment in U.S. postsecondary institutions more than doubled, increasing from 2.1 to 5 million students (Horn & Premo, 1995). In contrast, full-time enrollment in the same period increased by only one-third. Nontraditional students are overly represented in U.S. community colleges and other similar institutions where they generally pursue shorter programs than students enrolled at 4-year colleges/universities. Horn and Premo (1995) found that among part-time students, 55% pursued associate degrees while 15% were enrolled in vocational certificate programs. In a study that focused on perceptions of community college students, Horn and Ethington (2002) researched whether students from different ethnic backgrounds and enrollment status varied in their perceptions of growth and development outcomes from the community college experience. The sample consisted of four ethnic groups—Asian /Pacific Islander, Black/African-American, Hispanic/Latino, and Caucasian-comprising 178 full-time and 178 part-time students, and a total sample size of 1,424. Data were taken from the national administration of the CCSEQ and the sample was restricted to students intending to transfer to a four-year institution. Full-time or part-time status was based on the number of credits taken at the college students were attending at the time of the study. Findings from the multivariate test for the interaction of ethnic group and enrollment status were not statistically significant, and differences in perceived growth among ethnic groups were not dependent on enrollment status.

Employment Status, Family Responsibilities and Time on Campus

Generally, researchers have found that a student's employment status and the demands of family responsibilities adversely affect academic achievement and persistence in college. The student who holds a full-time off-campus job and has family commitments typically has little or no time to spend on campus. Therefore, there may be no opportunities to build strong collegial social relationships or to be involved in campus activities. Astin (1993) stressed that working full-time "is associated with a pattern of outcomes that is uniformly negative" (p. 387), and having a part-time job off-campus produces effects similar to full-time employment. Bers and Smith (1991) surveyed 1142 students at a community college in the U.S. Midwest to investigate the extent to which persistence in college could be predicted by students' social and academic integration in the community college. Study participants were randomly drawn from enrollments in fall 1988. Student background characteristics—age, gender, employment, ethnicity, and program, were the covariates included in the analyses. Results revealed that employment status was most significant, as persisters and nonpersisters varied substantially with respect to outside employment. Students who persisted tended to be employed outside of college for fewer hours than those who did not persist. However, unemployed students were less likely to continue college than those having part-time employment. Moreover, most students above age 25 were employed full-time. Bers and Smith concluded that employment demands and family responsibilities might have affected persistence.

However, Balunas (1986) reported completely different findings from a study conducted at a community college in New York. Balunas used the American College Testing (ACT) Student Opinion survey in spring 1985 to examine the relationship between number of hours of employment, GPA and persistence in college of American community college students. The

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survey collected background information, such as age, gender, marital status, and family responsibilities from a sample of 464 predominantly white (422) students enrolled in day programs at the community college. Most of the sample (270) comprised female students. The students were enrolled in several majors—liberal arts, business, technologies, and health. Results indicated no significant relationship between number of hours worked per week and GPA. There was also no significant difference in number of hours worked and college enrollment for the ensuing semester.

Still, more recent findings from comprehensive national studies indicate that employment outside of college and family responsibilities may indeed predict engagement and persistence in college. The Community College Survey of Student Engagement (CCSSE) 2008 report provided an analysis of the most and least engaged community college students. The report was based on data collected from a sample of more than 343,000 students from 585 institutions in 48 American states as well as British Columbia, the Marshall Islands, and Nova Scotia. Findings contained in the 2008 report were corroborated by the 2009 report (CCSSE, 2009). Both reports revealed that male students, part-time students, students who work more than 30 hours per week, and traditional-aged students were among the least engaged community college students. By contrast, female students, full-time students, students who worked fewer than 30 hours per week, and students of nontraditional age were among the most engaged. The American Council on Education (ACE) also released statistics for 2003 showing that more than 80% of beginning postsecondary students—primarily those enrolled in 2-year colleges—worked at some time during college enrollment. On average, these students were employed for 30 hours each week. Although limited employment (working fewer than 15 hours per week) increased persistence and achievement, work intensity (working 30 or more hours each week) was linked to academic

failure. Students who started postsecondary education at a 2-year college and who either did not work or worked less than 15 hours per week during the first year of college were more likely to attain a degree or certificate (43% and 45%, respectively) than students who worked in excess of 30 hours per week (24%).

Work intensity and family responsibilities are key risk factors in student persistence, according to findings from a comprehensive national study commissioned by the U.S. Department of Education. Horn and Premo (1995) analyzed data from the 1992-1993 National Postsecondary Student Aid Study (NPSAS: 93). They identified six risk factors for nontraditional students in the 1992-1993 undergraduate cohort: (a) delayed postsecondary education, (b) part-time enrollment, (c) independent student status, (d) dependents, (e) single parent status, and (f) not graduating from high school. Findings revealed that approximately twothirds of the undergraduates were affected by at least one of these risk factors, though students tended to be affected by more than one factor. For example, full-time employment was associated with part-time enrollment, and students who had dependents worked full-time and attended college part-time. Among the 1992-1993 cohort, female students were more likely than males to be older and to have dependents (56% vs. 48%). The report also identified students who were single parents as one of the groups most at risk of missing classes and withdrawing from postsecondary education. Unlike nontraditional peers who had substantial responsibilities outside of college, traditional students generally demonstrated no risk factors. Approximately 56% of dependent students attained a degree or certificate six years after beginning postsecondary education, compared with 36% of independent students without children, and 41% of independents with children. Finally, students with multiple risk factors tended to be females who were disproportionately enrolled in 2-year or less than 2-year institutions.

Parent Education

Postsecondary enrollment is strongly associated with parents' education, and parents' increased educational status is typically matched by an increase in postsecondary enrollment (Choy, 2001). These findings were among several presented in a 2001 report sponsored by the U.S. Department of Education National Center for Education Statistics (NCES). The report was based on findings from three nationally representative longitudinal studies conducted by NCES: the National Education Longitudinal Study (NELS), the Beginning Postsecondary Students Longitudinal Study (BPS), and the Baccalaureate and Beyond Longitudinal Study (B&B). The NELS study followed a 1988 group of 8th graders until 1994 when most had completed high school. They were studied every two years until 1994, and then six years later, in 2000. Meanwhile, the BPS comprised students of varying ages whose first enrollment in postsecondary education occurred in either 1989-1990 or 1995-1996. The 1989-1990 group was again surveyed in 1992 and 1994, and the second group was surveyed in 1998. Finally, the B&B study was administered to 1992-1993 baccalaureate degree awardees in 1994 and 1997.

Choy (2001) found that parents became more involved in their children's education when their education increased, and that students from low-income families were disproportionately represented among those whose parents had low education. In 1999, 82% of students whose parents had at least a bachelor's degree enrolled in college directly after high school. However, parent education was important even among those who planned to enroll in a 4-year institution immediately after high school. By 1994, 65% of those whose parents did not attend college had enrolled in a 4-year institution, as against 87% of those whose parents had at least a bachelor's degree. Statistics also indicated that high school graduates whose parents did not attend college were twice as likely as their peers whose parents had attained bachelors or higher degrees to attend public 2-year colleges instead. Choy's findings corroborated results of an earlier study that was also commissioned by the U.S. Department of Education, NCES (Horn & Nuñez, 2000). Horn and Nuñez reported that first-generation students were less likely than their peers to participate in academic programs leading to college enrollment within two years of graduating from high school. In addition, these students consistently trailed peers with educated parents. In fact, Horn and Nuñez found very noticeable disparity between first-generation students and peers from families in which at least one parent had attained a bachelor's degree. They also found strong correlation between enrollment in a 4-year college and completion of advanced math programs.

Using Tinto's (1975, 1993) student departure theory to test transfer behaviors and attitudes of community college students, Nora and Rendón (1990) surveyed students enrolled in six U.S. community colleges. The study specifically investigated the influence of student background characteristics, attitudes and behaviors displayed during enrollment at the community colleges. A systematic random sample was used to select students in four majors from which transfer was regarded as most likely to occur. The sample was restricted to Hispanics and Whites, with a total of 569 usable surveys selected for data analysis. The main reason cited for attending the community college was preparation to transfer to a 4-year college or university. Nora and Rendón also found that students whose parents had higher levels of educational achievement demonstrated higher levels of transfer-related behaviors. Not only did they view transferring in a positive light, but they also tended to apply to more institutions than peers whose parents were not as educated. No published research has focused on the educational background of parents whose children are enrolled in Caribbean postsecondary education.

Academic Major

From its inception, the community college's curricular functions have included preparation for academic transfer, technical/vocational education, continuing education, developmental/remedial education, and community service (Cohen & Brawer, 2008; Coley, 2000). Astin (1993) examined 14 freshman majors, two of which (agriculture, and mathematics and statistics) did not produce significant effects on student outcomes. Astin surmised that the seeming lack of impact of these majors on student outcomes might be more a reflection of the small numbers of students enrolled. Results for the other categories indicated the following direct effects: (a) engineering produced the most significant impact on student outcomes; (b) majoring in biological science, business, education, fine arts, physical science, and social science, increased students' chances of later pursuing careers directly or indirectly related to these fields; (c) majoring in the health professions positively influenced self-reported gains in work-related skills; (d) majors in the humanities positively impacted college GPA, as well as gains in foreign language and writing skills; and (e) choosing a psychology major was positively linked to several academic outcomes.

Meanwhile, Pascarella and Terenzini (1991) claimed that based on accumulated evidence, "the impacts of academic major are markedly stronger and more consistent in cognitive areas than in noncognitive ones" (p. 614). According to the authors, students showed highest levels of learning and proficiency in content tests that were congruent with their academic major. Yet, Pascarella and Terenzini found little consistent evidence to support the premise that academic major significantly impacted one's overall intelligence. Although most of the post-1990 findings on the effects of major fields support conclusions reported in the 1991 book, new evidence has also emerged (Pascarella & Terenzini, 2005). For example, contrary to pre-1990 findings, more recent research indicates that academic major has "a significant influence on occupational status" (p. 606). Individuals majoring in traditionally male-dominated fields such as engineering, mathematics, and the physical sciences tended to be disproportionately represented in occupations traditionally recognized as high-status fields. However, the impact of undergraduate major on career mobility in business could not be conclusively determined from the evidence.

Satisfaction with College

Student perceptions of the environment of their institutions may be important to the quality of the undergraduate experience (Kuh et al., 2007). Yet, satisfaction with the institution tends to be disregarded. Murrell and Glover (1996) contended that outcome assessment efforts do not investigate the interaction between students and community college environments. However, knowledge of learner activities and their responses to the institution's efforts to provide a "rich educational environment can add an important dimension in determining the impact of the educational experience" (p. 199). The *college environment* is a broad term that includes interpersonal interactions with instructors and peers, academic and nonacademic support services, and physical resources and facilities. Glover's (1996) study of the effects of campus environment on U.S. community college students found that positive perceptions of college significantly predicted educational, personal, and social benefits, regardless of age. In other words, students who evaluated the campus environment most favorably reported greater academic and nonacademic benefits than peers who were less satisfied.

Kuh and Hu (2001) studied the nature and impact of student-faculty interactions in the 1990s, to determine its impact on student satisfaction during college. They wanted to determine whether different types of student-faculty contact contributed to learning and satisfaction. Data

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for the study was obtained from student responses to Pace's College Student Experiences Questionnaire (CSEQ) administered to a sample of 5,409 students randomly selected from126 colleges and universities. Results revealed that faculty-student contact increased during college, with upper division students more likely to hold stimulating discussions with faculty than lower division students. The most common type of contact with faculty reported by students involved seeking course information. Institutional environments characterized by high quality interactions among students, faculty, and administrators consistently and positively influenced student satisfaction. However, effects of student-faculty interaction were conditional in that academically prepared students interacted more frequently with faculty than less prepared peers. Both academic-related and social out-of-class interactions appeared to have a positive effect on student satisfaction with the college experience. Kuh and Hu concluded that if colleges expected to produce satisfied students they should "develop and sustain a welcoming, supportive, affirming environment" (p.328). Astin (1993) and Thomas (2000) also affirmed the importance of student-faculty interchange to student overall development and satisfaction with college.

Other researchers have focused on students' satisfaction with physical facilities at college. Veltri, Banning, and Gray Davies (2006) used a qualitative case study to examine community college students' perceptions of the value of specific classroom attributes. They explored the role of students in classroom design, students' assessment of the impact of the classroom's physical structure on their learning, and their expectations of future classroom design. Students identified physical factors that "had negative impact on their learning and made the classroom less than enjoyable" (p. 520). These physical features included insufficient space and furniture, and the arrangement of the room. By contrast, "physical space amenities where furniture allowed for group work, interaction, and the room's arrangement allowed students to

see visuals regardless where they were seated" (p. 522) were reportedly more conducive to learning. Students also graphically illustrated their perceptions of the ideal learning environment.

Pascarella and Terenzini (2005) observed that studying institutional environments may be more meaningful than emphasizing structural characteristics such as private versus public status, size, and single-sex versus coeducational orientation. Focusing on the college environment may provide greater insights into "between-college effects on learning and cognitive development" (p. 599). Pascarella and Terenzini also reported that institutions with an intellectual or analytical focus facilitated learning and cognitive development, despite size and selectivity. The Noel-Levitz 2008 National report on 4- and 2-year institutions emphasized the significance of institutional choice in predicting student satisfaction and the likelihood of remaining at their institutions. The 2008 report presented a comprehensive compilation of data from students, faculty, staff, and administrators in the U.S. and Canada. Student responses were collected over a 3-year academic period, from fall 2005 through spring 2008. Among students enrolled in U.S. institutions, responses were obtained from 198,833 students from 244 community, junior, and technical colleges. The report highlighted greater satisfaction among community college students than those from 4-year institutions. Across all institution types, females indicated higher levels of satisfaction than their male peers. Of importance, 68% of community college students enrolled at their first choice institution expressed satisfaction with the institution, while 79% indicated that if they had to repeat their education choice they would re-enroll at the same institution. Among respondents for whom the institution was their second choice, 50% expressed satisfaction with the institution and 58% would be willing to re-enroll. Based on the reported statistics, community and technical colleges obtained the highest scores for likelihood to re-enroll at the community college. The Noel-Levitz 2010 National report confirmed findings about student

satisfaction contained in the 2008 report. According to the 2010 report, community college students across North America have indicated increasing levels of satisfaction for four of the last five years. Students of nontraditional age, part-time enrollees, and those whose educational goal was attaining an associate degree reported greatest satisfaction with the community college experience.

CHAPTER 3

METHOD

This chapter describes the method used to accomplish the present study. The chapter begins with a restatement of the purpose of the study and research questions. The remainder of the chapter is organized into eight sections describing the logical framework, research design, participants, instrumentation, data collection procedure, data preparation, data analysis, and limitations of the study.

Purpose Statement

This survey study investigated the extent to which involvement in course-related and extracurricular activities combined with personal (age, gender, employment status, family responsibilities, parents' education) and college-related (full-time/part-time enrollment, major, time on campus, satisfaction with college) characteristics predicted Jamaican community college students' perceived readiness for immediate post community college goals. I theorized that the predictor variables—involvement in class and extracurricular activities (Astin, 1984; Braxton, Milem, & Sullivan, 2000; Chaney, Muraskin, Cahalan, & Goodwin, 1998; Davis & Murrell, 1993; Pace, 1984; Tinto, 1975, 1986, 1993); age and gender (Bailey, 2004; Grimes, 1995; Leppel, 2002; Miller, 2000; Spitzer, 2000); enrollment status (Astin, 1993; Bean & Metzner, 1985; Horn & Ethington, 2002); employment status and family responsibilities (CCSSE, 2008, 2009; Horn & Premo, 1995); time on campus; parents' education (Choy, 2001; Horn & Nuňez, 2000); program major (Cheng, 2001; Pascarella & Terenzini, 1991, 2005); and satisfaction with college (Glover, 1996; Pascarella & Terenzini, 2005; Tinto, 1998) might be indicators of Jamaican students' perceptions of readiness for immediate post community college goals. The outcome construct—perceived readiness for immediate post-community college goals—was defined as students' impressions of their readiness to pursue goals upon completing studies at the community college. The complex mission of U.S. and Caribbean community colleges includes preparing students for higher education and work (Bailey, Jenkins, & Leinbach, 2005; Grant-Woodham & Morris, 2009; Ignash & Townsend, 2001; Laanan, 2000; Walsh, 2005; Wolff, 2009). Consequently, postschool goals were operationalized as work and/or higher education.

Research Questions

The following research questions were examined:

- 1. What are the personal and college-related characteristics of Jamaican community college students, and what goals do they intend to pursue after completing current studies at the community college?
- 2. What forms of class-related and college extracurricular activities do Jamaican community college students actively and regularly engage in?
- 3. What work- and college-related tasks do Jamaican community college students feel most ready to perform?
- 4. What aspects of their college experiences are these Jamaican community college students most satisfied with?
- 5. To what extent does involvement in classes and college extracurricular activities independently and collaboratively explain Jamaican community college students' perceived readiness for work and for higher education, respectively?

6. What are the best overall predictors of perceived readiness of these Jamaican community college students for work and for higher education, *respectively*?

Logical Framework

Figure 1 depicts the logical framework for the study of Jamaican community college students' perceptions of readiness for post-college goals. The study examined two different forms each of involvement and readiness variables in combination with personal characteristics and college-related variables.



Figure 1. Logical Framework for Student Perception Study.

The logical framework evolved from review of the college student involvement literature, and conceptualizes a student's perceived readiness for work and higher education as each being predicted by three sets of variables, including involvement in classes and college extracurricular activities, personal characteristics, and college-related factors. Involvement variables are grounded in Astin's (1984) student involvement theory, Pace's (1984) quality of effort construct, and Tinto's (1975, 1993) student departure theory. These theorists concurred that the degree to which a student benefits from college is directly related to level of involvement and integration in academic and non-academic college activities. The involvement variables were, therefore, presumed to be key predictors, and the study investigated the extent to which this was the case. The two outcome variables—perceived readiness for work and for higher education—were consistent with the employment and higher education missions of the Jamaican community college sector (Adamson, n.d.; Evans & Burke, 2006; Miller, 2000; Walsh, 2005).

The framework also proposed that a student's personal characteristics such as age, gender, employment status, family responsibilities, and parent education may influence perceived readiness for work and higher education goals. The importance of student background characteristics to college persistence has been widely recognized (Bean & Metzner, 1985; Choy, 2001; Grimes, 1995; Leppel, 2002; Pascarella & Terenzini, 2005; Spitzer, 2000; Tinto, 1987, 1993). Likewise, college-related factors such as enrollment status (Astin, 1993; Bean & Metzner, 1985; Horn & Ethington, 2002), major (Cheng, 2001; Pascarella & Terenzini, 1991, 2005), time on campus, and satisfaction with the college experience (Glover, 1996; Tinto, 1988) have been found to influence persistence and perceptions of benefits from the college experience.

The logical framework was designed to illustrate that a variety of factors might impact college students' perceptions of how prepared they are to pursue goals after college. It

hypothesized that involvement in classes and in college extracurricular activities are important factors which, together with student personal and college-related characteristics, may predict perceptions of student readiness to pursue work and higher education goals. For Jamaican community college students enrolled in the final year of a community college-developed associate or baccalaureate degree, and who indicate employment or higher education plans directly after completing these studies, the framework presents several conceptualizations. First, a student who is actively engaged in classes and in extracurricular college activities may perceive greatest readiness for employment or higher education goals. Second, students enrolled in specific majors and those who indicate satisfaction with the overall college experience may feel more prepared for employment or higher education goals than their peers. Third, perceptions of readiness for work or higher education studies may be linked to age and gender. Fourth, students who attend college as part-time enrollees, hold full-time jobs while attending college, and who have family responsibilities may feel less prepared for higher education goals and more prepared for work than their peers who do not meet these criteria. Finally, students with at least one parent or guardian holding a college degree may perceive greater readiness for work and higher education goals than peers whose parents do not.

Research Design

The study utilized a cross-sectional survey design. In a cross-sectional design, data is collected at one point in time, although the actual data collection period may vary (Fraenkel & Wallen, 2006). Survey research is a non-experimental quantitative design widely used in the social sciences (Muijs, 2004). However, surveying in the 21st century has been transformed from a relaxing interactive encounter to a highly detached experience that is increasingly mediated by technology (Dillman, Smyth, & Christian, 2009).

Yet, despite the mode utilized—internet, mail, or mixed—the survey is generally recognized for its (a) value as a source of scientific information (Creswell, 2003, 2008; Scheuren, 2004), (b) effectiveness in systematically collecting and documenting feedback (Richardson, 2005), (c) replicability with a wide range of participants for various purposes, especially when coverage rather than depth is desired (Babbie, 1990; Hill, 2001), (d) ease of administering, recording responses, and managing the data collection process, (e) relatively low cost, and (f) suitability for sensitive topics, or when anonymity is preferred. For these reasons, survey design was deemed appropriate for this perception study. I administered the survey at each participating college, according to tailored design approach (Dillman et al., 2009) and Institutional Review Board (IRB) protocol (see Appendices B-E).

Participants

Population

The population for this study (N = 1,531) comprised students enrolled at eight public community colleges in Jamaica, three of which are residential colleges. Approximately 70% of the population was concentrated in three colleges (CCCJ, 2010). The following criteria defined the population: (a) students enrolled in one of eight Jamaican community colleges, recognized as part of the CCCJ, (b) completing the final year of a community college-developed associate or bachelor's degree program, (c) full- and part-time enrollees, and (d) pursuing one of four majors—business studies; hospitality and tourism; computer; or architecture and construction technology. Data revealed that 50% of the population was enrolled in a business studies major, 24% were pursuing hospitality and tourism studies, 18% were enrolled in a computing major and 8% were completing an associate degree in architecture and construction technology. Final-year students were selected for the study based on presumed acquired college experiences and greater readiness for post-college goals. Table 1 summarizes program levels and delivery modes of pertinent majors across the eight community colleges. As indicated, business and hospitality studies are core CCCJ majors.

		Program level and delivery mode					
College	Major	A.Sc.	F/T	P/T	B.Sc.	F/T	P/T
A	Business	Х	Х	Х	Х	Х	x
	Hospitality	Х	х	Х	Х	Х	Х
	Computer	Х	Х	Х	Х	Х	Х
В	Business	X	X	X	X		X
	Hospitality	Х	х	Х			
	Computer	Х	х	Х			
	Architecture/	Х	х				
	Construction						
С	Business	X	Х	X	Х		Х
	Hospitality	Х	х	Х	Х	Х	х
	Computer	Х	х	Х	Х		х
	Architecture/	Х	х	Х			
	Construction						
D	Business	X	X	X			
	Hospitality	Х	х	х			
	Computer	Х	Х				
E	Business	Х	Х				
	Hospitality	Х	х				
	Architecture/	Х	х				
	Construction						
F, G, H	Business	х	Х				
	Hospitality	Х	Х				

Table 1Program Levels and Delivery Modes of Specific CCCJ Majors

Note. A, B, C, D, E, F, G and H are substituted for actual college names of Jamaica's eight community colleges; A.Sc. = associate degree; F/T = full-time or day delivery mode; P/T = part-time or evening delivery mode; B.Sc. = bachelor's degree

Sample

The optimal sampling plan for any study is the one that yields the most representative sample of the chosen population (Huberty & Petoskey, 1999). Furthermore, the type of sample a researcher uses will influence "the accuracy of the inferential guess or the definition of the population toward which the inferential guess is directed" (Huck, 2008, p. 105). With this in mind, a simple random sample was the preferred strategy for this study. In a simple random sample, each member of the population has "an equal and independent chance of being selected" (Fraenkel & Wallen, 2006, p. 95). Once a sufficiently large sample is drawn, there is a strong possibility that the sample will be representative of the population of interest.

However, several barriers ultimately led to the use of a nonrandom convenience sample. The difficulties encountered included lack of timely communication from most colleges, difficulty of obtaining enrollment data and class lists, bureaucracy at some colleges, which adversely affected communication dissemination to relevant personnel, and sudden changes to scheduled college visits. Consequently, a convenience sample was taken from seven of the eight Jamaican community colleges, as one college chose not to participate in the study. In a convenience sample, data is collected based on the availability of individuals and the corresponding population is hypothetical in that the researcher believes it comprises individuals similar to those in the sample (Huck, 2008). The major disadvantage of the convenience sample is the possibility of bias since it is not representative of the target population (Fraenkel & Wallen, 2006). Huck (2008) recommended providing detailed descriptions of convenience samples in order to conceptualize the nature of the abstract population to which inferences are directed.

Three main steps were taken to minimize the risk of bias in the sample. First, sample selection strictly adhered to criteria identified previously (i.e., full- and part-time Jamaican community college students, final-years, completing one of four specified majors). Thus, a criterion-based convenience sampling method was utilized. Criterion sampling enables a researcher to select a sample based on set criteria (Gall, Gall, & Borg, 2007). Second, student groups were chosen from the population of interest based on current college enrollment data and class lists. Third, every attempt was made to select as large a sample as possible from each participating college. Although using too few or too many participants in regression analyses may be problematic (Green, 1991), a large sample size is required if a researcher wishes to detect small meaningful effects or differences in population means (Olejnik, 1984). Moreover, large sample sizes are justified for regression studies that include many predictors (e.g., $k \ge 10$), if accuracy is desired (Algina & Olejnik, 2000). Algina and Olejnik (2000) determined that sample size of 343 is needed to achieve ± 0.05 accuracy when k = 10, $p^2 = 0.05$ and the median value of the distribution of *adjusted* $R^2 = 0.048$. Krejcie and Morgan (1970) recommended a sample size of 310 for a population of 1600. The total sample chosen for this study (n = 554) included over 90% of the target population at one college, and 60% at another. Table 2 summarizes population data for all eight colleges and the sample size from each college included in the study.

<u></u>							
College	Population	Sample size	% sampled				
A	300	179	60				
В	386	150	39				
С	393	65	17				
D	195	51	26				
E	109	48	44				
F	60	35	58				
G	28	26	93				
<u>H*</u>	60	0					
Total	1531	554	36				

Study Population and Sample Size from Each College

Table 2

Note. * This college did not participate in the study.
Instrumentation

A researcher-designed self-report survey instrument was used for this study of Jamaican community college students' perceptions of their readiness for post-college goals. A self-report instrument can provide valuable information about individuals' beliefs, attitudes, and behaviors. Surveys produce numerical scores from which inferences can be made about individual differences on personal attributes (Gall et al., 2007). The decision to develop an instrument was taken after examining several student involvement surveys. Two of these instruments were particularly useful, namely, the CCSEQ (Pace, Friedlander, Lehman, & Murrell, 1999), and *The Community College Student Report* (CCSR)—survey instrument for the Community College Survey of Student Engagement (CCSSE, 2005). However, both instruments are lengthy. Unduly lengthy or complex surveys might jeopardize accuracy and response rates, and increase administration costs (Hill, 2001). In addition, the instruments contained items irrelevant to the Jamaican education context and do not directly measure readiness behaviors. Using either instrument to survey Jamaican community college students would, therefore, raise serious validity concerns.

Two studies investigated educational gains of Jamaican community college students (Buckle, 2010; Stewart, 2006). Stewart's (2006) study most closely paralleled the current study. To determine the utility of a 3-year Associate of Science degree (A. Sc.) in business studies, Stewart surveyed community college students and teachers, as well as employers and higher education representatives. Goals of the current study were similar to Stewart's study. However, whereas the earlier study explored student and stakeholders' perceptions of one program that is no longer offered, this study focused entirely on the perceptions of students enrolled in four majors currently offered across the Jamaican community college system. Moreover, unlike Stewart's study, the current research involved students enrolled in associate and bachelor's degree programs. Furthermore, the survey instruments used in the previous study were not available to guide instrument development for this study. Consequently, I decided to develop an instrument with items reflecting involvement and readiness behaviors among the population of interest. The 5-page instrument contained 51 items, 39 of which measured five constructs: involvement in classes and class activities (IC), involvement in extracurricular activities (IE), perceived readiness for work (PRW), perceived readiness for higher education (PRH) and satisfaction with college (SATC). The *involvement* and *readiness* constructs were central to this study. However, completion of the PRH construct items was optional for participants who did not intend to pursue higher studies upon completing current studies at the community college. The survey also contained a general section, with open- and closed-ended questions designed to obtain demographic and background information about study participants. The *Student Involvement Questionnaire* used to collect data for this dissertation study appears in Appendix F.

Instrument Development

The instrument development process encompassed three broad phases: (a) developing measures of involvement and readiness, (b) selecting predictor and outcome variables, and (c) conducting survey validation activities. Each of these phases incorporated several logical steps, explained in the ensuing discussion.

Clarifying involvement and readiness. Involvement and readiness were primarily clarified based on the community college literature and theories of student involvement and integration. Over the years, a growing body of community college literature has focused on the benefits of student involvement and the quality of student efforts in educational and non-educational contexts on campus (Cohen & Brawer, 2003, 2008; Davis & Murrell, 1993;

Ethington & Horn, 2007; Ethington & Polizzi, 1996; Friedlander & MacDougall, 1991; Glover, 1996; Pascarella & Terenzini, 1991, 2005; Polizzi & Ethington, 1998; Swigart & Murrell, 2001). Predicated on theories of student involvement and integration, these studies have found that students who are more immersed in academic and non-academic college activities report greater educational and non-educational achievements than peers who expend less effort. Thus, the extant community college literature conceptualizes student involvement as embodying both quality and quantity of participation. Likewise, readiness for immediate post-college goals was defined based on literature about the mission of community colleges in the Caribbean and the U.S. (Grant-Woodham & Morris, 2009; Ignash & Townsend, 2001; Laanan, 2000; Pearson, Ethington, Gould, & Murrell, 2009; Walsh, 2005; Wolff, 2009). Traditionally, students' reasons for enrolling in community colleges in the Caribbean and the U.S. include program transfer and preparation for the workforce. Therefore, perceived readiness for immediate post-college goals was operationalized as student impressions of how ready they are to begin or continue employment and/or to pursue higher education studies after completing current studies at the community college.

Items measuring involvement and readiness. The second stage in developing measures for student involvement and readiness practices involved generating and refining a large pool of items. Huberty and Petoskey (1999) advised against using single items to measure a characteristic or trait as this could adversely impact validity and reliability, and restrict the variability of scores. A preliminary set of items was generated based on careful review of the literature, existing instruments, informal conversations with Jamaican community college and university lecturers, and personal experience as an instructor and former program coordinator at a Jamaican community college. Creating an item pool to measure involvement and readiness behaviors entailed a thorough review of existing community college instruments such as the CCSEQ and CCSR, which are founded on involvement theories similar to those underlying this study. The CCSEQ was adapted to fit the diverse U.S. community college student population and experiences (Pace, 1992) and focuses on the quality of effort students put into learning (Ethington, Guthrie, & Lehman, 2001; Friedlander, Murrell, & MacDougall, 1993). The instrument contains more than 100 items measuring student involvement in a wide variety of college academic and non-academic activities. Students are also asked to estimate benefits gained from involvement in these activities. The CCSR collects data on the engagement of American community college students to highlight successful educational practices that foster student learning and retention (McClenney, 2007). The instrument also asks students to assess their level of satisfaction with the academic and non-academic college services offered.

Response scales. A summated rating scale—commonly used in the social sciences to assess people's attitudes, opinions and values—was utilized for this perception study. A summated rating scale (a) contains multiple items to be combined or summed, (b) includes individual items that measure an attribute that may vary quantitatively rather than qualitatively, (c) has no correct answer, and (d) uses individual statements that respondents are required to rate (Spector, 1992). In addition, a well-developed summated rating scale produces greater reliability, accuracy, and scope than individual yes- or-no questions. Three response scales—agreement, frequency, and evaluation—were deemed most appropriate to elicit participant responses to scale items on the survey. Spector (1992) differentiated between an agreement scale, which requires participants to determine the extent of agreement or disagreement and a frequency scale, which asks participants to indicate how often they engaged in a particular behavior. Conversely, an evaluation response scale requires respondents to rate behaviors or practices along a dimension

from positive to negative, or vice versa. For the IC and SATC constructs in sections one and five, an agreement scale with the following scale anchors was used: *strongly disagree, disagree, agree,* and *strongly agree.* However, the IE scale in section two utilized a frequency response choice including *never, rarely, sometimes,* and *often.* Finally, the PRW and PRH scales used the following evaluation response choices: *not ready, somewhat ready, ready,* and *very ready.*

A 4-point Likert-type range was used with each of the five scales and a total score calculated for each construct. Accordingly, items on the IC and SATC scales were assigned the following values: 1(strongly disagree), 2 (disagree), 3 (agree), and 4 (strongly agree). The IC score range was 10 to 40, while the SATC range was 4 to 16. A high score on the IC scale (maximum score = 40) identified a student who was very involved and expended much effort in classes and course-related activities. Likewise, a high SATC score (maximum = 16) identified a student who was highly satisfied with the current college and overall experiences there. The IE scale had the following values: 1 (never), 2 (rarely), 3 (sometimes), and 4 (often), with scores ranging from 10 to 40. Again, a high IE score connoted very high levels of involvement in college extracurricular activities. Values for the PRW and PRH scales were allocated as follows: 1(not ready), 2 (somewhat ready), 3 (ready), and 4 (very ready), with scores ranging from 8 to 32 and from 7 to 28, respectively. Thus, a high score on the PRW scale (maximum = 32) signified that students perceived they were fully prepared to begin or continue employment based on experiences at the current community college. Similarly, a high PRH score (maximum = 28) indicated that students felt very prepared for higher education studies after completing current studies at the community college.

Predictor variables. In quantitative research, initial variable selection is very important and may be justified by pertinent literature, researcher experience, or advice from colleagues

(Huberty & Petoskey, 1999). Predictor variables were selected for this study based on the empirical literature, theory, and researcher experience and knowledge of the Jamaican community college system. Advice from colleagues who teach in the Jamaican community college sector and feedback from the pilot study were also invaluable to the revision of items. Ultimately, three sets of predictor variables were examined—personal characteristics, collegerelated characteristics, and two involvement variables. Personal characteristic variables were age, gender, employment status, family responsibilities, mother's education and father's education. College-related variables were enrollment status, major, time on campus, and satisfaction with college. Of the 12 individual predictor variables, seven were categorical and the remainder (age, time on campus, satisfaction with college, involvement in classes, and involvement in college extracurricular activities) continuous.

Outcome variables. The outcome construct—perceived readiness for post- college goals—was a broad categorization for the two outcome variables investigated, i.e., perceived readiness for higher education studies and perceived readiness for work. The study therefore focused on the extent to which student involvement in classes and college extracurricular activities predicted perceptions of readiness for these specific goals after the community college experience. The initial item pool for the readiness constructs was developed based on the literature, as well as researcher knowledge of the Jamaican community college education curriculum. Readiness scale items were then revised to ensure they reflected core skills needed for success at the workplace or in higher education. This revision was accomplished through literature review conducted at the University of Georgia, and at the University of the West Indies, Jamaica, aided by informal telephone conversations with Jamaica university instructors.

Survey Validation

Validity is concerned with whether an instrument measures what it sets out to measure. Therefore, the concept of validity is aptly conveyed by the word accuracy (Huck, 2008). Two types of validity evidence were important for this researcher-developed instrument—content validity and construct validity. Content validity is concerned with coverage, or the extent to which items on an instrument cover a domain of interest. Conversely, construct validity is the degree to which a test may be considered an appropriate measure of the construct, that is, it indicates that scores from the instrument may be correctly interpreted as measures of the construct of interest (Crocker & Algina, 2008). The validity of the four principal measures (involvement in classes, involvement in extracurricular activities, perceived readiness for higher education, perceived readiness for work) and the college satisfaction scale rested on two main factors: (a) source of items and (b) item review. A comprehensive review of literature, the study's theoretical framework, and researcher experience guided the preliminary drafts and final development of a survey instrument with items measuring the constructs. Item review included peer reviews, conversations with community college instructors, program coordinators, and work experience supervisors in Jamaica, informal discussions with lecturers and program coordinators at one of the local universities to which students typically transfer, and a survey critique session.

Survey critique. I organized a survey critique session with seven persons, including a survey methodologist. Attendees were doctoral students primarily from the Departments of Adult and Workforce education at the University of Georgia. One student was also an instructor in the Georgia technical college system. The group provided valuable feedback on the survey directions, item choice, and clarity of individual items. Much of the discussions focused on how to resolve some logical problems related to the IC scale. The following recommendations were

offered: (a) define involvement more broadly to account for both quality and quantity of interaction, (b) review items to ensure their relevance and appropriateness to scale, and (c) use an agreement scale with the IC construct. Two other important decisions were made based on feedback from this session: (a) to revise the PRW scale items based on the American College Testing (ACT) workplace skills (ACT, n.d.), and (b) to make the PRH scale optional for students who do not have immediate plans to further their education.

Pilot study. A pilot study was used to ascertain whether the instrument had internal consistency, i.e., reliability. Consistency—the degree to which scores are the same when the test is repeated—is the essence of reliability (Crocker & Algina, 2008). Therefore, the appropriateness of the instrument to measure the primary constructs—involvement and readiness—rested on consistency across subsets of items on the instrument. After receiving approval from the University of Georgia's Institutional Review Board (IRB), the instrument was piloted in August 2010 with three groups of final-year students (n = 61) enrolled at one of seven Jamaican community colleges included in the current study. However, participants in the pilot were not part of the final study. The students were pursuing a CCCJ business major at an associate or bachelor's degree level. The sample shared other demographic characteristics with participants in the current study, including age, gender, enrollment and work status. The survey was conducted via direct classroom administration, according to approved IRB procedures and protocol referred to earlier. Time taken to complete the survey ranged from 5-10 minutes. Very few problems were noted, although several surveys were returned with items left blank. After completing the instrument, participants provided feedback on the clarity of instructions and items, as well as the general appearance and length of the instrument.

Reliability analyses of the instrument's four scales revealed Cronbach's alpha reliabilities ranging from a low of .71 to a high of .87. Thus, results of the reliability analysis were positive, as was the overall pilot administration. A complete report of the pilot study is included in Appendix G. The survey instrument was subsequently revised based on participant feedback and findings from the pilot data. The most significant change to the original instrument was the addition of a fifth scale—a 4-item college satisfaction scale that replaced the original one-item measure. The change was made to address concerns about the validity of using a single scale item to measure a construct (Crocker & Algina, 2008; Huberty & Petoskey, 1999; Spector, 1992). Items on the new Satisfaction scale were influenced by review of the community college research literature and involvement theory.

Data Collection Procedures

Several steps were taken to ensure efficiency and effectiveness of the data collection process. First, permission to conduct the research study was obtained from the CCCJ's Executive Director. Second, the principal or president of each of the eight community colleges was contacted via a formal request letter similar in content to the letter sent to the Executive Director of the CCCJ. Each letter outlined the purpose and importance of the study, the survey procedure, steps to be taken to maintain participant privacy and confidentiality and provided contact details for the researcher. A copy of the survey instrument was enclosed with each letter. However, unlike the letter sent to the Executive Director, letters sent to the principals requested confirmation of suitable dates to visit the college within the prescribed survey period, as well as class schedules and enrollment data. Third, email and telephone contacts were made with program coordinators and registrars at each college to introduce the study, encourage participation, and access class schedules and enrollment statistics. Finally, follow up emails and telephone calls to principals, program coordinators, and registrars confirmed receipt of correspondence and scheduled dates for college visits. Relevant personnel were also reminded to submit outstanding data (see Appendices B-E). Consistently maintaining contacts with relevant personnel at the research sites is reminiscent of the tailored design approach. This approach utilizes multiple contacts with participants—a technique found to be most effective in increasing response rates (Dillman et al., 2009). Seven of the eight colleges responded positively and agreed to have their students surveyed. Surveys were conducted at the seven colleges via direct classroom administration from November 15 through December 3, 2010. In most cases, the survey was administered during the first 15 minutes of a class period.

Before administering the survey, I addressed teachers' and program coordinators' concerns and questions and thanked them for facilitating the research. The teacher then left the classroom to prevent any breach of student privacy and confidentiality. Subsequently, the survey was administered to student participants according to guidelines in the *Administration Script* and *Research Information Sheet for Participants* (Appendix D). Administration protocol included (a) emphasizing that participation was voluntary, (b) explaining steps taken to ensure participant privacy and confidentiality, (c) allowing participants to respond anonymously, and (d) permitting participants to place completed or blank surveys in an envelope. Although the survey was administered to class groups, participants were discouraged from communicating with each other while completing the questionnaires. To indicate appreciation, candy and simple tokens such as book markers, key rings, and colored pens were distributed to participants. All 554 surveys distributed to participants were completed and returned for use in the study, yielding a 100% response rate.

Data Preparation

In preparation for analysis, data collected from the 554 surveys was input into an Excel spreadsheet and then exported to SPSS for data cleaning and analysis. Data preparation involved coding and assigning values to nominal, ordinal, and scale variables and recording specific problems associated with survey items (see Appendix H). Data cleaning was then carried out to achieve three main purposes: (a) to check for completeness of data, (b) to determine if there were any implausible values, and (c) to standardize data entries for demographic items that required written responses. The data cleaning run involved calculating statistics and producing frequency tables showing minimum and maximum values for each survey item. Responses were generally valid. In a few cases, participants entered impossible responses to variables such as year of birth and *time on campus*. These problems were logically resolved by leaving them as blanks and assigning them as system missing. There were no unusable surveys, and very few were returned with responses missing (i.e., Items 47-year of birth, 48-family responsibilities, and 50*mother* and *father education*). Non-response to these demographic items ranged from 3% - 5%. The time on campus variable (Item 45) was found to be clouded by residency status as participants residing on campus indicated spending from 168-200 hours per week on campus. The decision was therefore taken to exclude this variable from further analysis. On the other hand, year of birth was standardized as age by subtracting the indicated year of birth from the current year (2010).

The instrument's two involvement and two readiness constructs, and the satisfaction subconstruct were organized into five scales. Composite scores were obtained by summing item scores, resulting in a total score for each scale. In order to evaluate internal consistency reliability, Cronbach alphas were calculated for all five scales and indicated generally satisfactory reliability for each scale—an indication that the instrument was an appropriate measure of the study's central constructs (i.e., involvement and readiness). Reliabilities ranged from a high of .87 to a low of .79, as follows: *involvement in classes* (IC) = .79, *involvement in extracurricular activities* (IE) = .87, *perceived readiness for work* (PRW) = .84, *perceived readiness for higher education* (PRH) = .82, and *satisfaction with college* (SATC) = .80. The scale reliabilities, including measures of skewness and kurtosis are presented in Table 3.

Table 3	
Distribution and Reliability of Key Measures	

Scale	Number of items	М	SD	Mean item mean	Alpha	Skewness	Kurtosis
Involvement in class (IC)	10	31.45	4.06	3.15	.79	-0.91	2.99
Extracurricular involvement (IE	10 E)	21.68	7.35	2.17	.87	0.16	-0.78
Perceived readiness for work (PRW)	8	25.95	4.09	3.24	.84	-0.61	0.30
Perceived readiness for higher education (PRH)	n 7	21.87	3.68	3.13	.82	-0.49	0.25
Satisfaction wit college (SATC)	h 4	9.60	2.46	2.40	.80	-0.29	0.04

Scale distributions and frequencies were also examined to determine how well the instrument captured variance in the study population. The histograms in Figures 2-6 illustrate frequency distributions for the five scales.



Figure 2. Frequency Distribution of Involvement in Classes (IC) Scale.



Figure 3. Frequency Distribution of Involvement in Extracurricular Activities (IE) Scale.



Figure 4. Frequency Distribution of Perceived Readiness for Work (PRW) scale.



Figure 5. Frequency Distribution of Perceived Readiness for Higher Education (PRH) Scale.



Figure 6. Frequency Distribution of Satisfaction with College (SATC) Scale.

The frequency histograms demonstrate adequate variance within all five scales, as shown by the standard deviation (SD) for each scale. This confirms that the instrument's scales were appropriate for the constructs examined. Variability in scores was greatest for the IE scale (SD =7.35) and least for the SATC scale (SD = 2.46), which most closely approximates the shape of the normal distribution. Conversely, the Involvement in Class (IC) distribution (see Figure 2) shows *peakedness* as a large number of scores are at the center of the distribution. Values for skewness (-0.91) and kurtosis (2.99) from Table 3 indicate more non-normality in the scores for Class Involvement than in the other distributions. However, extreme values for skewness and kurtosis are accepted as greater than +3.0 or less than -3.0 (Huck, 2008). Data is generally considered approximately normal in shape if skewness and kurtosis values range from -1.0 to +1.0. Therefore, to varying degrees, the perceived readiness for higher education (PRH), perceived readiness for work (PRW) and involvement in extracurricular (IE) distributions also approach a normal distribution. This means that most of these scale scores are clustered near the middle of the distribution, and there is a gradual and proportional decrease in frequency in both directions away from the score center.

Data Analysis

Data analysis was conducted to answer each of the study's research questions. Statistical analyses were performed to yield descriptive statistics for research questions one through four. Simple and multiple linear regression, and general linear model (GLM) procedures were used to answer research question five, while multiple regression analyses answered research question 6. Table 4 outlines the data analysis approach for all six questions.

Table 4Data Analysis Approach

Research question	Survey items	Variable (s)	Analysis
1. What are the personal and college-related characteristics of Jamaican community college students, and what goals do they intend to pursue after completing current studies at the community college?	40-50	-Enrollment status -Major -Goal -Employment status -Gender -Age -Family responsibilities -Mother education -Father education	Descriptive statistics (frequencies and percentages)
 What forms of class- related and extra- curricular activities do Jamaican community college students actively and reguarly engage in? 	1-20	-Involvement in class -Involvement in extra- curricular activities	Descriptive statistics (means, standard deviation, frequencies, percentages)
3. What work- and college-related tasks do Jamaican community college students feel most ready to perform?	21-35	-Perceived readiness for work -Perceived readiness for higher education	Descriptive statistics (means, standard deviation, frequencies, percentages)

(continued)

Research question Survey items Variable (s) Analysis 4. What aspects of -Satisfaction with college 36-39 Descriptive their college (statistics, experiences are means, standard Jamaican community deviation. college students frequencies, most satisfied with? percentages) 5. To what extent does 1-35 -Involvement in class score Simple/multiple involvement in regression. -Involvement in extraclass and extracurricular activities score GLM curricular activities -Perceived readiness for work independently and score *collaboratively* predict -Perceived readiness for higher students' perceived education score readiness for work and for higher education, respectively? What are the best 1-41, 43-49 -Involvement in class score Multiple regression 6. overall predictors -Involvement in extraof students' curricular activities score perceived readiness -Satisfaction with college score for work and for -Enrollment status higher education, -Maior respectively? -Employment status -Gender -Age -Family responsibilities -Mother education -Father education

Table 4Data Analysis Approach (continued)

Descriptive statistics selected to describe the sample for this study and to determine goals after the community college were means, frequencies, percentages, and standard deviation. These statistics were used to describe variables of enrollment status, major, employment status, gender, age, family responsibilities, and parent education for the students surveyed. In addition, mean and standard deviation statistics were necessary to identify those class, extracurricular, work- and college-related activities most common among the sample, and to determine what aspects of the college experience students found most satisfying (research questions 2-4). Item analyses tables are used to present descriptive data findings. The primary advantage of descriptive statistics is that it allows researchers to use a few measures to describe much information (Fraenkel & Wallen, 2006). However, descriptive statistical analysis does not permit generalizations beyond the study group. The arithmetic mean or average is one of three measures of central tendency that enables non-statisticians "to describe the characteristics of groups in a general way" (Best & Kahn, 1998, p. 342). The mean is the most popular and perhaps most useful of all statistical measures as it accommodates all scores in a distribution. However, its accuracy may be affected by extreme outliers, resulting in incorrect description of data (Fraenkel & Wallen, 2006). By contrast, the standard deviation (SD) is a primary measure of variability and is considered a powerful, stable, and most useful statistic (Best & Kahn, 1998; Fraenkel & Wallen, 2006; Gall et al., 2007). The stability of the SD as an index of variability is due to the fact that it accounts for all scores in a distribution and is not influenced by extreme values (Huck, 2008). Frequency distributions summarize categorical data by indicating the total number in a category or group. Generally, frequency distributions are informative, but "often the information they contain is hard to visualize" (Fraenkel & Wallen, 2006, p. 191). Although frequency tables, graphs, and charts are very useful for summarizing large amounts of information, percentages may be more readily understood by individuals with little knowledge of statistics. Moreover, the data provided in frequency distributions can be easily summarized through percentages.

Regression analyses were employed to answer research questions five and six. Regression analyses may be conducted for predictive or explanatory purposes, both of which are important to research (Huck, 2008; Pedhazur, 1997). According to Pedhazur (1997), understanding how both purposes differ is necessary to appropriately use regression analysis and accurately interpret findings. Predictive research focuses on "practical applications, whereas in explanatory research the main emphasis is on understanding phenomena" (Pedhazur, 1997, p. 196). Problems often arise from misuse and invalid interpretation of explanatory regression analysis, but if validly used predictive regression analysis does not pose these problems. The choice of predictors may be empirically determined or guided by theory (Huberty & Petoskey, 1999; Pedhazur, 1997). Predictive regression analysis was chosen for this survey research study.

A series of simple regression analyses, as well as multiple regression and GLM procedures were performed to answer research question five, while multiple regression analyses were conducted to answer question six. In regression analysis, Y represents the outcome or criterion variable and X the predictor (Huberty & Petoskey, 1999; Huck, 2008). Predictive regression analysis therefore studies the predictability of Y based on the X variables (Huberty & Petoskey, 1999). Simple regression analysis is utilized when there is one X and one Y variable, to determine the degree to which variability in Y may be accounted for or predicted by X. A simple linear regression of Y on X is obtained when "Y means for the different levels of X differ from each other and lie on a straight line" (Pedhazur, 1997, p. 17). Multiple regression analysis involves one Y and several X variables. Additionally, multiple regression utilizes three popular variable selection procedures-stepwise selection, forward selection, and backward elimination—to reflect the order in which data on the predictors is entered into the analysis. According to Pedhazur (1997), there is no unanimity concerning which variable selection method is most effective, as each method has advantages and disadvantages. However, there seems to be some consensus that the stepwise (Huberty, 2003; Huberty & Petoskey, 1999) and forward selection methods are flawed. Therefore, in order to answer research question six, the backward elimination technique was utilized. Ultimately, selection of the best set of predictors

was made based on a pre-determined criterion of a .05 significance level. The central elements of a regression analysis include (a) R^2 (or r^2), which indicates the proportion of variability in the criterion variable accounted for by the predictor variables; (b) *adjusted* R^2 , which removes bias associated with R^2 (Huck, 2008; Pedhazur, 1997); (c) test of the regression coefficients or slopes (*b*, β); and (d) tests for interaction effects or homogeneity of the regression slopes. The *F*-test investigates whether the relationship can be generalized to the population represented by the sample. Finally, four assumptions of multiple regression—normality, linearity, reliability of variable measurement and homoscedasticity—should be tested (Pedhazur, 1997). Normality refers to the normal distribution of variables, linearity is the assumption of a straight line relationship between the independent and dependent variables, and homoscedasticity assumes equal variance in scores for independent variables at all values of the dependent variable.

Limitations

Three limitations are relevant to this study. First, although specific criteria guided sample selection and a 100% response rate was achieved, data for the study were collected via convenience sampling. Consequently, findings from the research are not necessarily generalizable to the population of interest. Second, only final-year students, i.e., those who had achieved academic success, were surveyed. Less successful students might feel differently about their readiness for higher education and work goals. Third, my administrative and teaching experiences at one of the colleges included in this study may have indirectly influenced participant response. These experiences influenced the focus of this dissertation research. However, I had never met or interacted with any of the survey respondents before conducting the research. Moreover, every effort was made to ensure the data collection process was objective, and that respondent privacy and confidentiality were maintained.

CHAPTER 4

FINDINGS

This chapter describes findings obtained from the survey instrument completed by respondents. Findings are organized and presented in relation to each of the six research questions that guided the study. The purpose of this study was to examine the perceptions of Jamaican community college students about their readiness for postcollege goals, and to determine the degree to which class and college extracurricular involvement predicted perceived readiness for these goals.

Research Questions

- 1. What are the personal and college-related characteristics of Jamaican community college students, and what goals do they intend to pursue after completing current studies at the community college?
- 2. What forms of class-related and college extracurricular activities do Jamaican community college students actively and regularly engage in?
- 3. What work- and college-related tasks do Jamaican community college students feel most ready to perform?
- 4. What aspects of their college experiences are these Jamaican community college students most satisfied with?
- 5. To what extent does involvement in class and college extracurricular activities *independently* and *collaboratively* explain Jamaican community college students' perceived readiness for work and for higher education, *respectively*?

6. What are the best overall predictors of perceived readiness of these Jamaican community college students for work and for higher education, *respectively*?

Findings for Research Questions

Research Question 1

What are the personal and college-related characteristics of Jamaican community college students, and what goals do they intend to pursue after completing current studies at the community college?

Personal characteristics. The ratio of females to males in the study sample was 1.65 to 1. Respondents' ages ranged from 18 to 46, while the mean age was 21.82 (n = 539, SD = 4.55). Furthermore, almost 60% of the sample reported being unemployed for most of their college career, and nearly 40% had no family responsibilities. Of those who were employed, over 90% reported having off-campus jobs. Item 49—Impact of family responsibilities on college activities (n = 402)—was optional for several respondents, based on responses to Item 48. Consequently, non-response to this item (27.4%) was expected and ignorable. In terms of parent education, 8.4% of respondents indicated having no knowledge of their mother's or maternal guardian's level of education, while 27.2% reported having no knowledge of their father's or paternal guardian's educational level. A secondary or high school education was the highest educational level attained by approximately 50% of mothers or maternal guardians (n = 534) and 40% of fathers or paternal guardians (n = 525). In addition, nearly 13% of mothers or maternal guardians reportedly held a bachelor's degree, and just over 5% had a master's degree or higher. On the other hand, 7.4% of fathers or paternal guardians held a bachelor's degree, and 4.2% attained a master's degree or higher.

Non-response (i.e., to Item 50-mother education and father education) accounted for 3.6% and

5.2% of the sample, respectively. Table 5 presents details of survey respondents' personal

characteristics.

Variable	n	%
Gender		
Female	345	62.3
Male	209	37.7
Age		
18-21	344	63.8
22-25	108	20.0
26-30	62	11.5
31-35	13	2.4
36-40	8	1.6
41 and above	4	0.7
Employment status		
Full-time job	123	22.2
Part-time job	106	19.1
Employed on campus	18	7.8
Employed off campus	213	92.2
Did not work	325	58.7
Impact of family responsibilities on cla	sses	
No family responsibilities	218	39.4
Does not affect classes	178	32.2
Little interference	130	23.5
Much interference	27	4.9
Impact of family responsibilities on col	lege activities	
No extracurricular involvement	149	37.1
No interference	136	33.8
Little interference	93	23.1
Much interference	24	6.0

Table 5Personal Characteristics of Participants

(continued)

Variable	n	%
Mother/Guardian's highest educational le	vel	
Primary school	26	4.9
Some secondary/high school	166	31.1
Secondary/high school diploma	116	21.7
Some college	61	11.4
Associate's degree	23	4.3
Bachelor's degree	68	12.7
Master's degree or higher	29	5.4
Father/Guardian's highest educational lev	vel	
Primary school	34	6.5
Some secondary/high school	117	22.3
Secondary/high school diploma	101	19.2
Some college	47	9.0
Associate's degree	22	4.2
Bachelor's degree	39	7.4
Master's degree or higher	22	4.2

Table 5Personal Characteristics of Participants (continued)

Note. *N* = 554.

College-related characteristics and postcollege goals. Approximately 80% of the study sample was enrolled full-time in one of four majors at seven community colleges in Jamaica. Over 70% indicated plans to immediately pursue higher education goals after completing studies at the community college—either as full-time students or by combining work and study. Table 6 reveals the college-related characteristics and postcollege goals of study respondents.

Variable	п	%
Enrollment status		
Full-time	442	79.8
Part-time	112	20.2
Major		
Business	228	41.2
Hospitality & tourism	148	26.7
Computer	134	24.2
Architecture & construction	44	7.9
Postcollege goals		
Work	151	27.2
Higher education	241	43.5
Work and study	150	27.1
Other	12	2.2

Table 6College-Related Characteristics and Post-College Goals of Participants (N=554)

Research Question 2

What forms of class-related and college extracurricular activities do Jamaican community college students actively and regularly engage in?

Students were asked to evaluate the degree of involvement and effort, and how frequently they participated in various class-related and extracurricular college activities. These activities were organized into two of the five scales included on the survey instrument—*Involvement in Classes and Course-Related Activities* (IC) and *Involvement in Extracurricular Activities* (IE). For each item on all five scales, students responded to a 4-point Likert-type scale. Responses on the IC scale ranged from 1(*strongly disagree*) to 4 (*strongly agree*), while those on the IE scale ranged from 1(*never*) to 4 (*often*). Each of the two scales contained 10 items, and the sum of responses created an IC and an IE score for each respondent, respectively.

Class-related activities. Total IC scores of 10 or below (i.e., the minimum possible score = *strongly disagree*) signified that a respondent was not actively involved in or put no effort into

class-related activities. Total scores between 11 and 20 signified that respondents put very little effort into class-related activities. Respondents scoring between 21 and 30 reported some class involvement and effort expended in course activities. Scores of between 31 and 40 (i.e., the maximum score range = *strongly agree*) indicated that respondents expended much effort and were very involved in classes and course-related activities. Analysis of item responses revealed that individual IC scale item mean scores ranged from 2.43 to 3.63. Mean scores were lowest on item 10—*I discussed my academic progress with an instructor or course advisor* (M = 2.43, SD = 0.83), and highest on item 2—*I actively participated in group-assigned course work* (M = 3.63, SD = 0.56). Respondents also had low mean scores for item 9—*I discussed class content with instructors outside of class* (M = 2.67, SD = 0.71), and item 8—*I frequently discussed class topics with peers outside of the classroom* (M = 2.95, SD = 0.76). Details of item responses to the IC scale—with items arranged in descending order based on mean scores—are given in Table 7.

				Frequency (%)			
				Strongly			Strongly
Item No.	Stem	М	SD	disagree	Disagree	Agree	agree
2.	I actively participated in group-assigned course work	3.63	0.56	5 (0.9)	6 (1.1)	179 (32.3)	364 (65.7)
4.	I put a lot of effort into doing research for class assignments	3.39	0.62	5 (0.9)	27 (4.9)	271 (48.9)	251 (45.3)
5.	I put a lot of effort into studying for a test or final exam	3.33	0.71	9 (1.6)	50 (9.0)	246 (44.4)	249 (44.9)

Involvement in Classes scale—Item Response Analyses

				Frequency (%)			
Item No.	Stem	М	SD	Strongly disagree	Disagree	Agree	Strongly agree
3.	I put a lot of effort into writing an essay or term paper	3.30	0.68	9 (1.6)	41 (7.4)	277 (50.0)	227 (41.0)
1.	I actively participated in general class discussions	3.29	0.63	5 (0.9)	38 (6.9)	304 (54.9)	207 (37.4)
б.	I regularly used concepts learned in class to complete assignments	3.25	0.64	7 (1.3)	41 (7.4)	314 (56.7)	192 (34.7)
7.	I regularly met deadlines for submitting course assignments	3.22	0.73	12 (2.2)	63 (11.4)	269 (48.6)	210 (37.9)
8.	I frequently discussed class topics with peers outside of the classroom	2.95	0.76	20 (3.6)	115 (20.8)	293 (52.9)	126 (22.7)
9.	I discussed class content with instructors outside of class	2.67	0.71	28 (5.1)	178 (32.2)	297 (53.7)	50 (9.0)
10.	I discussed my academic progress with an instructor or course advisor	2.43	0.83	72 (13.0)	222 (40.1)	209 (37.7)	51 (9.2)

 Table 7

 Involvement in Classes scale—Item Response Analyses (continued)

College extracurricular activities. Respondents' total scores on the IE scale indicated frequency of involvement in extracurricular activities. A total score of 10 or below indicated no involvement in college extracurricular activities, while a score of 11 to 20 signified very little involvement. Respondents scoring between 21 and 30 had some involvement in extracurricular activities on campus, and those whose scores were between 31 and 40 reported frequent involvement in extracurricular activities. The item mean scores on the IE scale were generally

low, ranging from 1.72 to 2.77. In addition, there was modest variance in the distribution of scores (i.e., *SD* ranged from 1.00 to 1.11). Respondents most frequently attended information forums on future educational and employment opportunities. They were least involved in planning and organizing events on campus. Table 8 provides details of item response analyses conducted for the IE scale. Items are listed in descending order according to item mean scores.

Table 8

Involvement in Extracurricula	r Activities scale—	Item Response	Analyses
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				Frequency (%)			
Item No.	Stem	М	SD	Never	Rarely	Sometimes	Often
19.	Attending information sessions about future educational opportunities	2.77	1.04	96 (17.3)	91 (16.4)	210 (37.9)	157 (28.3)
18.	Attending information sessions about future employment opportunities	2.64	1.06	112 (20.2)	108 (19.5)	199 (35.9)	135 (24.4)
20.	Attending information sessions about campus procedures	2.33	1.01	145 (26.2)	152 (27.4)	184 (33.2)	73 (13.2)
11.	Participating in student council or club meetings	2.27	1.11	195 (35.2	107 (19.3)	159 (28.7)	93 (16.8)
17.	Participating in a campus- organized recreational activity	2.17	1.06	208 (37.5)	106 (19.1)	176 (31.8)	64 (11.6)
12.	Voting in student council elections	1.97	1.09	272 (49.1)	90 (16.2)	128 (23.1)	64 (11.6)
15.	Participating in a college project not required for course credit	1.97	1.07	266 (48.0)	104 (18.8)	121 (21.8)	63 (11.4)

(continued)

				Frequency (%)			
Item N	Io. Stem	М	SD	Never	Rarely	Sometimes	Often
16.	Taking part in a campus- based sport activity	1.93	1.10	290 (52.3)	78 (14.1)	122 (22.0)	64 (11.6)
13.	Considered holding a leadership position in a club on campus	1.90	1.08	289 (52.2)	95 (17.1)	107 (19.3)	63 (11.4)
14.	Planning and organizing a campus event	1.72	1.00	331 (59.7)	88 (15.9)	93 (16.8)	42 (7.6)

 Table 8

 Involvement in Extracurricular Activities scale—Item Response Analyses (continued)

Research Question 3

What work- and college-related tasks do Jamaican community college students feel most ready to perform?

In addition to assessing the extent of their involvement in classes and in college extracurricular activities, students also evaluated their readiness for employment and for further education. They were asked to assess readiness for these endeavors based on experiences at their current college. Items measuring readiness for work and for college-related tasks were contained in two scales—*Perceived Readiness for Work* (PRW), and *Perceived Readiness for Higher Education Studies* (PRH). The two scales consisted of eight and seven items, respectively and utilized 4-point Likert-type scales. Responses ranged from 1(*not ready*) to 4 (*very ready*), and individual item scores on each scale were added to produce a single score for each scale. Respondents were directed to answer all items on the PRW scale. However, the PRH scale was optional for students who did not intend to immediately pursue further education after the community college. Yet, all but 52 members of the total sample chose to complete the PRH scale.

Work-related tasks. Total scores on the PRW scale ranged from 8 to 32. Respondents scoring 8 or below believed they were not ready to perform specified work-related tasks. Scores between 9 and 16 showed that respondents perceived limited readiness for work tasks. Conversely, those scoring between 17 and 24 perceived themselves ready to complete work-based tasks, while those who scored from 25 to 32 indicated they were very ready to undertake these tasks. Means of items on this scale extended from 3.01 to 3.52, revealing a rather restricted range of scores. Individual item analyses revealed that respondents believed they were most ready to utilize the computer and internet for work-related tasks and communication (M = 3.52, SD = 0.67). They also felt ready to adhere to standards of work and conduct (M = 3.49, SD = 0.65). On the other hand, they indicated least readiness for preparing work documents (M = 3.01, SD = 0.79), and for team projects (M = 3.02, SD = 0.85). Details of item response analyses for the PRW scale are contained in Table 9. Items are listed in descending order, according to mean scores.

				Frequency (%)				
Item No.	Stem	М	SD	Not ready	Somewhat ready	Ready	Very ready	
23.	Using the computer and Internet for work-based tasks and communication	3.52	0.67	8 (1.4)	31 (5.6)	182 (32.9)	333 (60.1)	
28.	Maintaining work standards and rules of conduct	3.49	0.65	6 (1.1)	28 (5.1)	211 (38.1)	309 (55.8)	

Table 9 Perceived Readiness for Work scale—Item Response Analyses

(continued)

				Frequency (%)			
Item No.	Stem	М	SD	Not ready	Somewhat ready	Ready	Very ready
24.	Receiving and effectively communicating verbal messages	3.31	0.71	11 (2.0)	47 (8.5)	257 (46.4)	239 (43.1)
26.	Observing and correctly following on-the-job procedures and demonstrations	3.29	0.73	11 (2.0)	59 (10.6)	241 (43.5)	243 (43.9)
27.	Meeting deadlines	3.21	0.75	9 (1.6)	81 (14.6)	250 (45.1)	214 (38.6)
25.	Applying critical thinking and problem- solving methods to work-related tasks	3.11	0.77	12 (2.2)	99 (17.9)	258 (46.6)	185 (33.4)
21.	Completing a team project in the workplace	3.02	0.85	30 (5.4)	106 (19.1)	243 (43.9)	175 (31.6)
22.	Preparing work- related documents	3.01	0.79	19 (3.4)	113 (20.4)	263 (47.5)	159 (28.7)

 Table 9

 Perceived Readiness for Work scale—Item Response Analyses (continued)

College-related tasks. The seven college-related tasks on the PRH scale produced total scores from 7 to 28. Respondents with a total score of 7 or below perceived no readiness to perform identified tasks. Respondents scoring between 8 and 14 felt somewhat ready to complete the tasks, while those scoring between 15 and 21 believed they were ready to do so. Total scores from 22 to 28 indicated that respondents perceived they were very ready to perform the specified

college-related tasks. Item mean scores ranged from a low of 2.84 to a high of 3.36.

Respondents indicated they were most ready to work with others on group assignments

(M = 3.36, SD = 0.71) and least ready to write effective essays (M = 2.84, SD = 0.78). Items and details of participant responses for the PRH scale appear in Table 10.

				Frequency (%)				
Item No.	Stem	М	SD	Not ready	Somewhat ready	t Ready	Very ready	
35.	Working as part of a team to complete group assignments	3.36	0.71	10 (2.0)	40 (8.0)	210 (41.8)	242 (48.2)	
29.	Using different sources to locate information for class assignments	3.27	0.74	11 (2.2)	55 (11.0)	222 (44.2)	214 (42.6)	
33.	Submitting assignments on time	3.23	0.72	7 (1.4)	65 (12.9)	237 (47.2)	193 (38.4)	
34.	Studying for a class test or final exam	3.16	0.75	7 (1.4)	86 (17.1)	230 (45.8)	179 (35.7)	
30.	Reading and making sense of new course materials at college	3.11	0.71	9 (1.8)	74 (14.7)	272 (54.2)	147 (29.3)	
32.	Making strong oral arguments and presentations	2.91	0.86	31 (6.2)	116 (23.1)	223 (44.4)	132 (26.3)	
31.	Writing effective essays	2.84	0.78	19 (3.8)	145 (28.9)	238 (47.4)	100 (19.9)	

Table 10Perceived Readiness for Higher Education Studies scale—Item Response Analyses

Research Question 4

What aspects of their college experiences are these Jamaican community college students most satisfied with?

The fifth scale of the survey instrument measured student satisfaction with the overall college experience. The Satisfaction with College (SATC) scale comprised four items using a 4-point, Likert-type response scale. Responses ranged from 1(Strongly disagree) to 4 (Strongly agree). A SATC score was achieved for each respondent by summing responses to the four scale items. Total scores of 4 or below indicated respondents were completely dissatisfied with the overall college experience. Scores between 5 and 8 signified that respondents felt mostly dissatisfied with their college experiences. However, respondents who scored between 9 and 12 were satisfied with the overall college experience, while those who received scores from 13 to 16 were very satisfied with the specified aspects of their college experience. Findings showed a somewhat limited range of generally low mean scores, as respondents tended to avoid both extreme response options (i.e., strongly disagree and strongly agree). Instead, most respondents indicated either disagreement or agreement with the items on this scale. Respondents were most satisfied with the overall college experience (M = 2.66, SD = 0.75) and least satisfied with college facilities (M = 2.26, SD = 0.75). Table 11 summarizes data related to items on the SATC scale.

				Frequency (%)				
Item N	o. Stem	М	SD	Strongly disagree	Disagree	Agree	Strongly agree	
39.	Overall, my exp. at this college have been very satisfactor	2.66 y	0.75	44 (7.9)	146 (26.4)	316 (57.0)	48 (8.7)	
38.	This college is an exciting place to be	2.26	0.82	89 (16.1)	213 (38.4)	218 (39.4)	34 (6.1)	
36.	I am satisfied with student services at this college	2.32	0.79	90 (16.2)	218 (39.4)	224 (40.4)	22 (4.0)	
37.	I am pleased with facilities at this colleg	2.26 e	0.75	87 (15.7)	248 (44.8)	205 (37.0)	14 (2.5)	

Table 11Satisfaction with College Scale—Item Analyses

Research Questions 5 and 6

Inferential statistical analyses were required to answer research questions five and six. Specifically, regression analyses were conducted to determine how much variability in each of two outcome variables—*perceived readiness for work,* and *perceived readiness for higher education studies*—was due to the study's key (i.e., involvement) constructs. The regression research also investigated the best set of predictors for each outcome variable. Several tests of statistical significance were applied to results of the regression analyses. First, the *multiple correlation squared* (R^2) and the *coefficient of determination* (r^2) were examined to measure the strength of association between predictor and outcome variables. The coefficient of determination statistic (r^2) is utilized in simple linear regression, while the multiple correlation squared measure (R^2) is important for multiple regression analyses. Both indicate the proportion of variance in the outcome variable predicted or accounted for by each independent variable or set of variables, respectively. Further, the test of R^2 proceeds as for r^2 , and reveals whether the regression of the dependent variable (*Y*) on the independent variable (X) is statistically significant (Pedhazur, 1997). In other words, the test of R^2 is equivalent to testing whether at least one regression coefficient differs from zero. Yet, R^2 may overestimate variance in the dependent variable. Therefore, the *adjusted* R^2 statistic is accepted as a more realistic predictor of variability in the outcome variable associated with the independent variables.

Second, findings from tests of regression coefficients are also presented. The regression coefficient or slope for each predictor variable indicates the size of the variable's effect on the dependent or outcome variable. In addition, the positive or negative sign on the coefficient indicates the direction of the effect—whether the dependent variable is expected to increase or decrease. For example, in simple linear regression, the coefficient reveals how much increase or decrease is expected in the outcome variable when the predictor variable increases by one point. In regression with multiple predictors, the coefficient indicates how much the outcome variable will increase when a particular predictor increases by one unit, holding all other predictors constant. Generally, distinction is made between the unstandardized regression coefficient or test statistic (b, B) and beta, the standardized parameter estimate (β). The former refers to raw scores, while the latter refers to standard scores. Other statistics reported in these findings are measures of statistical significance, including *p*-values, the omnibus *F* distribution, *t-test* statistics, and standard error. The *p*-value (or significance level) measures how much evidence exists to reject the null hypothesis—that the predictors have no effect on or account for no change in the outcome variable. Generally, a small p-value is evidence to reject the null hypothesis (H_p) and the smaller the p-value, the more evidence there is against H_{ρ} . A large p-value means little or no

evidence exists to reject H_0 . As a rule, a significance level of .05 is the accepted point at which to reject the null hypothesis. This means there is only a 5% chance that results obtained would appear in a random distribution. The omnibus F distribution for regression slopes is reported with degrees of freedom (df) for the numerator and denominator. The omnibus F-test measures whether means of regression slopes, main effects, and interaction effects are statistically significant. When the omnibus F-test is significant, this means the variable of interest is effective, or the difference between groups is highly likely. Best and Kahn (1998) surmised that an F ratio considerably greater than 1 is likely to be too large to ascribe to sampling error. Degrees of freedom in a distribution refer to the number of independent values or observations in the final calculation. The *t*-statistic is the coefficient divided by its standard error. It indicates whether a nonzero relationship for the coefficient exists in the population, based on sample data (Fraenkel & Wallen, 2006). The standard error is also a very useful statistic. It estimates the magnitude of variation in the coefficient, as well as the accuracy with which it is measured. If the coefficient is substantially larger than the standard error, then the *t*-test is regarded as statistically significant (Kerlinger, 1979).

Finally, findings of interaction effects are also reported. Interaction signifies that the regression of the dependent or *Y* variable on an independent (*X*) variable is conditioned by another (*Z*) variable (Aiken & West, 1991). Therefore, interaction focuses on the joint effects of two or more variables. For example, in a two-way interaction where A*B is the product of A and B, which is a test of their interaction, the regression coefficient for A shows the effect of A when B is zero, and the coefficient for B shows the effect of B when A is zero. If an interaction effect is present, tests are conducted to determine exactly where the significant differences lie. Simple main effects are analyzed if no statistically significant interaction effects are found.
Research Question 5

To what extent does involvement in class and college extracurricular activities independently and collaboratively explain Jamaican community college students' perceived readiness for work and for higher education, respectively?

A series of simple linear regression analyses were used to test if each of two continuous variables—involvement in class (IC) and involvement in college activities (IE)—significantly predicted perceived readiness for work and for higher education, respectively. Results indicated involvement in classes accounted for 13% of variation in respondents' perceived readiness for work $(r^2 = .13, adjusted r^2 = .129, F(1, 551) = 82.69, p < .001)$, while involvement in extracurricular activities accounted for 6% ($r^2 = .06$, adjusted $r^2 = .059$, F(1, 552) = 35.73, p < .059.001). On the other hand, class involvement explained 19% of variability in respondents' perceived readiness for higher education studies ($r^2 = .19$, *adjusted* $r^2 = .188$, F(1, 499) = 116.43, p < .001), and extracurricular involvement predicted 9% ($r^2 = .09$, adjusted $r^2 = .09$, F(1, 500) =50.90, p < .001). In all cases, *adjusted* r^2 values were similar to values reported for r^2 . Findings for the involvement regression coefficients were also statistically significant (p < .001) and each regression slope had a positive effect on the dependent variable. For example, for every one point increase in class involvement, perceived readiness for work was expected to increase by .37 points. Again, for every one point increase in extracurricular involvement, perceived readiness for work was predicted to increase by .14 points. Tables 12 and 13 summarize findings for regression coefficient and parameter estimates related to perceived readiness for work and for higher education, respectively. The constant is the intercept estimate—the value of the dependent variable (Y) when the independent variable (X) is zero.

Model	Variable	Unstandardized coefficient b	Std. error	Standardized coefficient β	t	p
1	Constant Involvement in class	14.480 0.37	1.272 0.040	0.36	11.39 9.09	.000 .000
	Model statistics	$r^2 = .13$, adjuste	$d r^2 = .129,$	F(1, 551) = 82.6	59, $p = .000$	0
2	Constant Involvement in extracurricular	22.975 0.14	0.526 0.023	0.25	43.70 5.98	.000 .000
	Model statistics	$r^2 = .06, adjuste$	$r^2 = .059,$	F(1, 552) = 35.	73, <i>p</i> =.000	С

Table 12Involvement Coefficients and Parameter Estimates (1)

Note. N = 554. Dependent variable: Perceived readiness for work (PRW).

Table 13			
Involvement	Coefficients	and Parameter	<i>Estimates</i> (2)

Model	Variable	Unstandardized coefficient b	Std. error	Standardized coefficient β	t	р
1	Constant Involvement in class	9.571 0.39	1.150 0.036	0.44	8.33 10.79	.000 .000
	Model statistics	$r^2 = .19, adjust$	ted $r^2 = .188$	8, <i>F</i> (1, 499) = 116	.43, <i>p</i> = .	000
2	Constant Involvement in extracurricular	18.583 0.15	0.487 0.021	0.30	38.16 7.13	.000 .000
	Model statistics	$r^2 = .09, adjuster$	$ed r^2 = .091$	F(1, 500) = 50.9	0, p = .00	00

Note. N = 502. Dependent variable: Perceived readiness for higher education (PRH).

Table 14 shows Pearson correlations (*r*) for the two involvement predictors and corresponding dependent variables. Correlations of .20 to .30 indicate a weak relationship. A correlation coefficient below .35 has little predictive value, though it may be important to discover that certain variables are unrelated (Fraenkel & Wallen, 2006). According to Fraenkel and Wallen (2006), correlations between .40 and .60 are frequently found in educational research and may have theoretical or practical value. These interpretations may be useful for this study.

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0				
Variable	1	2	3	4
1. Perceived readiness for work (PRW)	1.00	-	.36*	.25*
2. Perceived readiness for higher education (PRH)	-	1.00	.44*	.30*
3. Involvement in class (IC)	.36*	.44*	1.00	.23*
4. Involvement in extracurricular activities (IE)	.25*	.30*	.23*	1.00

Correlations among Involvement Predictors and Outcome Variables

Note. **p* < .001

To investigate whether involvement in class and in college extracurricular activities collaboratively predicted perceived readiness for work and for higher education, respectively, tests of interaction effects were required. If a statistically significant interaction effect did not exist, simple effects were then analyzed. The interaction (or homogeneity of regression slopes) tests sought to ascertain whether the effect of class involvement on perceived readiness for work and for higher education was conditioned by extracurricular involvement, and vice versa. The GLM package in SPSS was used to test for interaction and simple main effects of the involvement variables. The tests of between-subjects effects revealed no significant joint effects of class and extracurricular involvement on perceived readiness for work, F(1, 549) = 3.14, p = .077. However, as indicated by Table 15, simple main effects were significant.

Parameter	Parameter estimate (β)	Std. error	t	р
Constant	13.652	1.266	10.78	.000
Involvement in class	0.32	0.041	7.99	.000
Involvement in extra- curricular activities	0.10	0.022	4.32	.000

Table 15Regression Parameter Estimates for Class and Extracurricular Involvement

Note. N = 554. Dependent variable: Perceived Readiness for Work (PRW).

By contrast, the combined effect of class and extracurricular involvement on perceived readiness for higher education was found to be statistically significant, F(1, 497) = 29.14, p < .001.

Research Question 6

What are the best overall predictors of perceived readiness of these Jamaican community college students for work and for higher education, respectively?

A total of 11 predictor variables were examined, seven of which were categorical gender, employment status, family responsibilities, mother education, father education, college major, and enrollment status. Before conducting multiple regression analyses, the categorical variables were dummy coded in SPSS. Dummy coding is frequently used with categorical variables that have two or more levels. It is a procedure by which membership or nonmembership in a group or category is indicated by a series of 1 or 0, respectively (Pedhazur, 1997). The dummy coded variable always has one level that is not coded, referred to as the reference or base category. Selection of the reference category for each dummy coded variable is based on group size, i.e., the category in which most respondents fall. All other categories are then compared to the reference level. For example, in coding major, *business* was selected as the base category as this was the most popular program of study among research participants. Likewise, *full-time enrollment* was chosen as the reference category for respondents' enrollment status, *female* for gender, and *primary school* for mother's and father's highest educational level. Consequently, 33 variables were analyzed for each of the two dependent variables.

To carry out the required analyses, three common variable selection procedures stepwise, forward, backward-were considered. Pedhazur (1997) acknowledged that there is no consensus on any one selection procedure. Rather, he advised that these procedures be restricted to prediction. Forward and stepwise selection techniques are similar in that both begin with no variables in the model and variables are systematically added based on significance of the Fstatistic. The two procedures are different in that forward selection retains variables already in the model, while stepwise selection scrutinizes all variables in the model and deletes those not producing a significant F statistic. Backward elimination starts with all predictors entered in the model and each predictor examined in turn to determine the decrease in R^2 that would result from its removal. Therefore, the variables deleted are those whose removal would result in the smallest decrease in R^2 . The variables retained in the final model are regarded as making considerable contribution to prediction of the outcome variable. Pedhazur noted that the forward selection procedure is seriously flawed in that "predictors entered into the analysis are retained, even if they have lost their usefulness upon inclusion of additional predictors" (p. 222). Other researchers have warned against using stepwise procedures for ordering predictor variables (Huberty, 2003; Huberty & Petoskey, 1999). Consequently, I decided to utilize the backward elimination procedure to determine the best set of predictors for each outcome variable.

Involvement in class, extracurricular involvement, respondent age, and mother education were the best predictors of perceived readiness for work, $R^2 = .20$, *adjusted* $R^2 = .198$, *F*(4, 507) = 32.47, p < .001. For three of the four slope parameters, i.e., involvement in class, extracurricular involvement, and respondent age, confidence intervals indicate at least 95% confidence that, in the long run, $\beta > 0$. This indicates a positive linear relationship between these predictors and the *Y* variable. In the case of mother education, $\beta < 0$, indicating a negative relationship. Five variables were retained as the best predictors of perceived readiness for higher education. They were mother education, involvement in class, extracurricular involvement, satisfaction with college, and full-time enrollment, $R^2 = .30$, *adjusted* $R^2 = .296$, *F*(5, 458) = 39.93, p < .001. Except for mother education and full-time enrollment, confidence intervals for these slopes indicate $\beta > 0$. Therefore, in each case, a positive linear relationship exists. The confidence interval for full-time enrollment straddles zero, indicating no confidence (at the 95% level) that a positive relationship exists. Once again, a statistically significant negative relationship is indicated for mother education and the *Y* variable. Detailed findings are presented in Tables 16 and 17.

Variable	В	β	95 % CI
Constant	11.119**		[8.00, 14.24]
Involvement in class	0.35**	0.34**	[0.27, 0.44]
Involvement in extra- curricular activities	0.11**	0.19**	[0.06, 0.15]
Age	0.09*	0.11*	[0.02, 0.17]
Mother education	-0.16*	-0.08*	[-0.32, -0.01]

Table 16Best Predictors of Perceived Readiness for Work

Note. N = 554. CI = confidence interval. *p < .05. **p < .001.

Variable	В	β	95 % CI
Constant	5.842**		[3.35, 9.26]
Mother education	-0.19*	-0.11*	[-0.33, -0.05]
Involvement in class	0.39**	0.42**	[0.31, 0.46]
Extracurricular involvement	0.10**	0.21**	[0.06, 0.15]
Satisfaction with college	0.14*	0.09*	[0.02, 0.26]
Full-time enrollment	0.68^{+}	0.07^{+}	[-0.10, 1.45]

Table 17Best Predictors of Perceived Readiness for Higher Education

Note. N = 502. CI = confidence interval. *p < .05. **p < .001. + p > .05

CHAPTER 5

SUMMARY, DISCUSSION, AND RECOMMENDATIONS

This chapter interprets findings presented in Chapter 4. The chapter is organized into six sections, including a summary of the study, review of findings, discussion, recommendations for practice and policy, recommendations for future research, and conclusion.

Summary of the Study

Preparation for career and higher education are primary missions of Jamaica's community colleges (Miller, 2000; Walsh, 2005). The colleges have been making sustained efforts to improve their traditionally inferior image in the Jamaican postsecondary education sector, while tackling competition from internal and external postsecondary education providers (Marshall, 2007). The community colleges have also been aggressively pursuing program accreditation and re-accreditation. Consequently, several programs—mainly associate degree programs-are now accredited. In addition, several colleges now offer community collegedeveloped baccalaureate degrees. Lower tuition, easier access, and less demanding entry requirements make these institutions increasingly appealing to Jamaicans seeking a postsecondary education. However, attaining an associate degree qualification does not guarantee students a smooth transition from the community college to public universities (Evans & Burke, 2006); Miller, 2005; UWI Research and Policy Group, 2005). Moreover, in view of deficiencies in workforce training in Jamaica and the wider Caribbean (Gregory, 2003; McArdle, 2004; Taylor-Stone, 2008; World Bank, 2005), students' preparation for employment may also be inadequate. Accordingly, it is worthwhile to investigate students' perceptions of how

effectively the community college has prepared them for further education and career goals. This study investigated the extent to which class and extracurricular involvement, student background characteristics, and factors at college predicted students' perceptions of readiness for further education and career goals.

Six research questions guided the study.

- 1. What are the personal and college-related characteristics of Jamaican community college students, and what goals do they intend to pursue after completing current studies at the community college?
- 2. What forms of class-related and college extracurricular activities do Jamaican community college students actively and regularly engage in?
- 3. What work- and college-related tasks do Jamaican community college students feel most ready to perform?
- 4. What aspects of their college experiences are these Jamaican community college students most satisfied with?
- 5. To what extent does involvement in class and college extracurricular activities *independently* and *collaboratively* explain Jamaican community college students' perceived readiness for work and for higher education, *respectively*?
- 6. What are the best overall predictors of perceived readiness of these Jamaican community college students for work and for higher education, *respectively*?

Survey research design was chosen for this study because it is cross sectional, and is also an efficient means of collecting large amounts of descriptive data from respondents (Best & Kahn, 1998). Other advantages of survey research include the likelihood of high response rates and low cost (Fraenkel & Wallen, 2006). A researcher-administered survey allows the researcher to directly address participant concerns and questions. The survey instrument used to collect data for this study was empirically designed. Its development was guided by community college student involvement literature, relevant community college surveys, and theories of student involvement and integration. Therefore, the study's conceptual framework was predicated on three complementary theories—Astin's (1984) student involvement theory, Pace's (1984) quality of effort construct, and Tinto's (1986, 1993) student departure theory. The instrument contained six sections, five of which measured student perceptions of class and extracurricular involvement, perceived readiness for work and higher education goals, and satisfaction with the college experience. Each of these five sections was organized into a scale, and total scores were calculated for each. In the sixth section, respondents provided demographic information, including gender, year of birth, employment status, postcollege goals, enrollment status, family responsibilities, college major, and parent education. The instrument was administered to class groups at seven Jamaican community colleges during the first 15-20 minutes of a class period, from November to December 2010.

Data collection proceeded according to the tailored design method (Dillman, Smyth, & Christian, 2009) and in keeping with conventions approved by The University of Georgia's Institutional Review Board. Before the instrument was administered, it was reviewed by peers and knowledgeable analysts. The instrument was then pretested with a group of Jamaican community college students who shared characteristics with participants included in the final study. Pilot testing confirmed the reliability of the original instrument's four scales, which ranged from .71 to .87. The instrument was subsequently revised based on pilot study findings and on feedback from pilot participants, and a fifth scale—*Satisfaction with College*—was added. Reliability analyses obtained from the final survey administration revealed that

Cronbach's alpha reliabilities for the five scales ranged from .79 to .87. Data from the CCCJ (2010) indicated the total study population across the eight colleges was 1,531. Of this number, 554 respondents completed surveys. All 554 surveys were useable despite a few missing responses on some surveys; thus the response rate was 100%. It is possible that scores on the various scales are exaggerated, perhaps influenced by social desirability. However, it is more likely that the data are valid because (a) there was variance among the sample in terms of how respondents rated their involvement in various activities, (b) respondent privacy and confidentiality were maintained, and (c) participants responded anonymously.

Review of Findings

Respondents completed the 51-item *Student Involvement Questionnaire* that was developed to specifically address the six research questions by eliciting information about involvement and readiness behaviors, degree of satisfaction with the college experience, and respondent personal and college-related characteristics. Respondents used 4-point Likert-type agreement, frequency, and evaluation answer choices to rate their class and extracurricular involvement, readiness for work and higher education, and level of satisfaction with college. Survey data were analyzed using descriptive statistics, and simple and multiple regression analyses. A review of findings from the data analysis is described below by research question.

Findings from Research Question 1 describe the personal and college-related characteristics of respondents. They also reveal respondents' goals after completing studies at the community college. Exactly 62.3% of the sample was female and 37.7% was male. Respondents ranged in age from 18 to 46, and the mean age was 21.82. The largest majority of respondents fell into the 18 to 21 age category. Likewise, most respondents were not employed (58.7%) and had no family responsibilities (39.4%) during their college career, and nearly all of those who

were employed worked off-campus. Again, 32.2% of respondents reported that their family responsibilities did not impact classes, 23.5% reported their family duties had little impact on classes, and 4.9% indicated their family responsibilities had much impact on classes. Of those responding to the question about the impact of family responsibilities on college activities, 37.1% indicated that they were not involved in college activities, while 33.8% reported no conflict between responsibilities to family and involvement in college activities. Additionally, 23.1% of respondents disclosed that family responsibilities had little impact on their involvement in college activities, and 6.0% reported that their family responsibilities had much impact on their involvement in extracurricular activities. Meanwhile, 52.8% of respondents reported that secondary education or a high school diploma was the highest education achieved by their mother or maternal guardian, followed by 12.7% with a bachelor's degree, 11.4% with some college education, 5.4% with a Master's degree or higher, 4.9% with primary school qualifications, and 4.3% with an associate's degree. Conversely, 41.5% of fathers or paternal guardians reportedly attained only secondary education or a high school diploma, followed by 9.0% with some college education, 7.4% with a bachelor's degree, 6.5% with primary school qualifications, 4.2% with an associate's degree, and 4.2% with a Master's degree or higher. Approximately 79.8% of survey respondents were full-time college enrollees, and 20.2% were enrolled part-time—a ratio of almost 4 to 1. A majority of respondents (41.2%) were pursuing a business major, 26.7% majored in hospitality and tourism studies, 24.2% in computer studies, and 7.9% in architecture and construction. With regard to their postcollege goals, 44.5% of respondents indicated their intention to directly pursue higher education studies after completing current community college programs, 27.8% planned to enter or return to the workforce, and 27.7% reported that they intended to work while pursuing higher studies.

Research Question 2 focused on identifying class-related and college extracurricular activities that respondents actively and regularly engaged in. Section 1 of the Student Involvement Questionnaire required respondents to use an agreement response option to assess their involvement and degree of effort expended in classes and class-related activities. The items were organized into the Involvement in Classes (IC) scale, and the sum of all item responses yielded the IC score. The agreement answer choices ranged from 1 (strongly disagree) to 4 (strongly agree). The IC mean score was 31.45 (SD = 4.06), with a minimum score of 10 and a maximum of 40. The higher the score, the more involved and the greater the effort respondents exerted in class activities. Results revealed that 98% of the sample reported active participation in group-assigned coursework, 94.2% put much effort in conducting research for class assignments, and 89.3% put a lot of effort into studying for a test or final exam. By contrast, 62.7% discussed class content with teachers outside of class, and only 46.9% discussed their academic progress with a teacher or course advisor. The second section of the instrument was a 10-item Involvement in Extracurricular Activities (IE) scale that required respondents to indicate how regularly they participated in specific college extracurricular activities. The frequency scale responses available were 1(never), 2(rarely), 3(sometimes), and 4(often), and an IE scale total was obtained by adding the values of individual item responses. The mean score for this scale was 21.68 (SD = 7.35), and scores ranged from 10 to 40. A high IE score indicated frequent involvement in extracurricular activities. An estimated 28.3% of the sample reported frequent attendance at information sessions on future educational opportunities, and 24.4% often attended employment-related information sessions. However, only 7.6% reported regular involvement in planning and organizing campus activities, while 11.4% frequently participated in a voluntary college project, or considered holding a leadership position in a campus-based club.

Research Ouestion 3 focused on identifying career and higher education tasks that respondents felt most ready to undertake, based on their current community college experiences. The Perceived Readiness for Work (PRW) and Perceived Readiness for Higher Education (PRH) scales used 4-point evaluation choices, with the following anchors: 1(not ready), 2 (somewhat ready), 3(ready), and 4(very ready). The PRW scale was compulsory, while the PRH scale was optional for respondents whose post-college goal did not include pursuing higher education studies. However, 90.6% of the sample completed the PRH scale. Individual responses to the 8 PRW and 7 PRH items, respectively, were summed to produce a single score for each scale. The mean score for the PRW scale was 25.95 (SD = 4.09), with a minimum score of 8 and a maximum of 32. The PRH mean score was 21.87 (SD = 3.68), and total scores ranged from 7 to 28. High PRW and PRH scores indicated that respondents perceived that they were highly prepared for work and higher education, respectively, based on the community college experience. Of the specified work-based tasks, 60.1% of respondents believed they were most ready to use the computer and Internet to complete tasks and communicate at work, followed by 55.8% who indicated that they were most prepared to maintain workplace standards and rules. Yet only 28.7% felt very ready to prepare work-related documents, while 31.6% felt very ready to complete team projects at work. Review of responses to the PRH scale revealed that 48.2% of respondents were most ready to work as part of a team on group assignments at college, while 42.6% felt very ready to identify and use different information sources for course assignments. However, only 19.9% of respondents felt very ready to write effective essays, and 26.3% reported they were most ready to engage in oral debates and presentations.

The goal of Research Question 4 was to discover what aspects of the community college experience respondents were most satisfied with. *Satisfaction with College* (SATC) was the fifth

scale on the Student Involvement Questionnaire. The SATC scale contained four items and utilized a 4-point agreement response choice, with anchors that ranged from 1(*strongly disagree*) to 4(*strongly agree*). Each respondent's SATC score was calculated by adding responses to the four scale items. The SATC mean score was 9.60 (SD = 2.46), with a minimum score of 4 and a maximum of 16. Item mean scores were low and the range was restricted (i.e., M = 2.66-2.26, SD = 0.82-0.75). Respondents reported greatest satisfaction with their total community college experiences (65.7%) and least satisfaction with college facilities (39.5%).

Regression analyses were conducted to answer Research Questions 5 and 6. Research Question 5 investigated the extent to which IC and IE individually and jointly explained PRW and PRH, respectively, in the survey sample. First, simple linear regression analyses were carried out to determine if IC and IE significantly explained either of the two outcome variables-PRW and PRH. Even when *adjusted* r^2 values were considered, IC consistently accounted for greater variability in each outcome variable than IE. For example, IC explained 13% of variability in PRW, compared to 6% of variance explained by IE, and 19% of variance in PRH, whereas IE accounted for 9%. These findings were statistically significant (p < .001). Moreover, IC significantly predicted PRW scores, b = .37, t(551) = 9.09, p < .001, as well as PRH scores, b = .37, t(551) = 0.09, p < .001, as well as PRH scores, b = .000, .39, t(499) = 10.79, p < .001. By contrast, IE significantly predicted a smaller increase in scores for PRW, *b* = .14, *t*(551) = 5.98, *p* < .001, and for PRH, *b* = .15, *t*(499) = 7.13, *p* < .001. Next, tests of interaction effects were carried out to determine joint effects of IC and IE on PRW and PRH, respectively. Where no statistically significant interaction effects were found, simple effects were then analyzed. The interaction effect of IC and IE on PRW was non-significant, F(1,549) = 3.14, p = .08, but simple main effects were significant (p < .001). The parametric test results indicated that IC accounted for a greater proportion of increase in PRW scores, $\beta = .32$,

t(549) = 7.99, than IE, $\beta = .10$, t(549) = 4.32. However, the interaction effect of IC and IE on PRH was statistically significant, F(1,497) = 29.14, p < .001. Post hoc probing of the joint effects of IC and IE on PRH indicated that IC produced more significant differences in scores for PRH, $\beta = .35$, t(497) = 9.66, p < .001, than IE, $\beta = .11$, t(497) = 5.53, p < .001.

Finally, Research Question 6 investigated the best overall predictors of PRW and PRH, respectively. Seven of the 11 predictor variables examined were categorical, and therefore had to be dummy coded before multiple regression analyses could be conducted. Consequently, 33 predictor variables were analyzed using backward elimination procedures in SPSS. The best predictors selected for PRW were IC, IE, respondent age, and mother's education, $R^2 = .20$, adjusted $R^2 = .198$, F(4, 507) = 32.47, p < .001. Confidence interval estimates (95% CIs) for IC, IE, and age [0.27, 0.44], [0.06, 0.15] and [0.02, 0.17], respectively, indicated positive linear relationships between these predictors and PRW, but a negative linear relationship between mother's education and PRW, $\beta = -0.08$, CI = -0.32, -0.01. In the second set of analyses, five variables were retained as the best set of predictors of PRH—IC, IE, satisfaction with college (SATC), mother's education, and full-time college enrollment, $R^2 = .30$, adjusted $R^2 = .296$, F(5, -1)(458) = 39.93, p < .001. The 95% CIs for IC, IE, and SATC signified positive linear relationships between these variables and PRH. Again, the 95% CI estimate for mother's education denoted a statistically significant negative relationship, $\beta = -0.11$, CI = -0.33, -0.05. There was no confidence at the 95% level of a positive relationship between full-time enrollment and PRH [-0.10, 1.45], and only marginal statistical significance (p = .09).

Discussion

Findings from this study support the main premise of the study's logical framework, and aspects of student involvement, quality of effort, and student departure theories (see Astin, 1984; Pace, 1984; Tinto, 1993). The findings also confirm as well as challenge conclusions based primarily on American community college research, and have important implications for practice within the Jamaican community college sector.

First, students identified higher education as their chief postcollege goal, with workforce transition as a secondary goal. This finding was especially marked when consideration was given to the percentage of students planning to combine work and higher education pursuits. It is also consistent with the increased global demand for higher education opportunities (Alfred, Ewell, Hudgins, & McClenney, 1999; Elsner, Boggs, & Irwin, 2008; Raby & Valeau, 2009). Students who were higher-education bound felt most ready to engage in group assignments and to utilize various information sources for class assignments. On the other hand, students headed for the workforce indicated that they were most prepared to use the computer and Internet for work tasks and communication. Like their American counterparts, Jamaica's community colleges emphasize higher education and workforce preparation (Miller, 2000; Walsh, 2005). Academic transfer may be the chief mission of the Jamaican colleges (Grant-Woodham & Morris, 2009), but workforce preparation is foremost for American community colleges (Jenkins & Boswell, 2002). Buckle (2010) found no difference in academic performance of native Jamaican university students and students who had transferred from the Jamaican community colleges. Further, starting a bachelor's degree at the community college did not jeopardize degree attainment. Findings from Buckle's study and the current study suggest that the Jamaican colleges may be effectively preparing students for higher education studies.

A second finding was the pre-eminence of the involvement variables in predicting perceived readiness for higher education and work, respectively, over the personal characteristics and college-related variables. This finding supports Pace's (1984) quality of effort premise and the study's logical framework, both of which proposed that student background and collegerelated characteristics may be less important than involvement in college. In addition, the study found class involvement to be the strongest predictor of perceived readiness for higher education and for work, while involvement in extracurricular activities produced smaller effects on both outcomes. Students reported greatest involvement in class activities that required much peer group or individual effort, and in extracurricular activities directly linked to higher education and employment goals. Study findings on the role of class involvement in student educational outcomes reinforce involvement and departure theories (see Astin, 1984; Pace, 1984; Tinto, 1993). Studies of American community college students have also found that involvement and perceptions of benefits strongly influence achievements at college and/or future outcomes (Glover, 1996; Horn & Ethington, 2002; McClenney & Marti, 2006; Polizzi & Ethington, 2008; Swigart & Murrell, 2001). The current study's discovery of the minimal effects of extracurricular involvement contradicts the American community college literature and aspects of involvement theory. It also challenges Astin's (1984) definition of an engaged student. Kasworm (2003, 2005) acknowledged that work and family commitments may prevent adult students from participating in out of class activities, and that, for these students, class involvement defines the college experience. Spitzer's (2000) findings from a study of traditional and nontraditional students found that nontraditional, i.e., adult students were more motivated and self-regulated than younger students. However, this explanation does not hold for the traditional-aged students in the study sample—an estimated four-fifths of the total sample—most of whom reported little

participation in extracurricular activities. It may be that opportunities for extracurricular involvement are limited and/or that meeting course requirements does not leave students with much time to participate in college activities.

A third finding was that mother's education produced small but statistically significant negative effects on students' perceived readiness for higher education and for work. When all predictors were held constant, a decrease in mother's education was accompanied by a decline in perceived readiness for work and for higher education, respectively. On the other hand, father's education was not a statistically significant predictor of either perceived readiness for work or for higher education. The highest educational qualification for approximately 50% of mothers and 40% of fathers was a secondary or high school education, while 13% of mothers and 7% of fathers held a bachelor's degree. Only 5% of mothers and 4% of fathers held Master's degrees or higher. No previously published study of the Jamaican postsecondary education sector has investigated the relationship between parents' education and student postsecondary enrollment or outcomes. However, such an investigation may reveal that parents of students enrolled in the community colleges have lower educational qualifications than parents of students enrolled in the public universities (Miller, 2000). Moreover, traditional shortage of male role models and absence of the father figure from Jamaican households (Miller, 1992, 1994) combined with the nurturing role mothers play in their children's development, may account for the importance of mother's education. National studies conducted in the U.S. have found strong correlation between parent education and postsecondary enrollment, especially among community college populations (Choy, 2001; Horn & Nuñez, 2000; Nora & Rendón, 1990).

Another important finding was that student age significantly predicted perceptions of readiness for work but not for higher education. Approximately 80% of the study sample were

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aged 24 and under. Age also had a very small effect on extracurricular involvement, in that younger students reported more involvement in these activities than students of nontraditional age. These findings are not surprising, given that 60% of the mostly traditional-aged study sample reported no paid employment for most of their college career, and in view of the earlier discussion of involvement patterns of adult and younger students. Clearly, adult students, i.e., those aged 25 and above, and who are typically part-time enrollees because of full-time work and/or family commitments, would be expected to perceive greater preparation for employment than their younger peers. The American postsecondary education research literature supports this finding. Spitzer (2000) and Terenzini, Springer, Yaegar, Pascarella, and Nora (1996) found that nontraditional students placed more emphasis on and were more confident about career goals than traditional students. Although American community colleges typically enroll larger proportions of nontraditional students than higher education (AACC, n.d., Bryant, 2001; NCES, 2004), findings from this study suggest the reverse may be true of Jamaica's community colleges. This latter finding was supported by Buckle (2010).

Finally, satisfaction with college was the only college-related factor to significantly predict perceived readiness for higher education. However, satisfaction with college did not predict perceived readiness for work. This finding partially supports the study's logical framework. Neither academic major nor enrollment status was found to be statistically significant at the .05 alpha levels—a surprising result, especially for academic major. Most students in the sample were pursuing a business major, which is a core specialization across the community college system. The Associate degree in business studies program is generally regarded as the CCCJ's flagship program, as it was the first to be developed and to receive official accreditation status from the local tertiary accrediting agency. On the other hand, fulltime enrollment was one of five variables selected as best predicting perceived readiness for higher education. However, it was only marginally significant, with an alpha level of .09. Findings suggest that, unlike full-time enrollees, students enrolled in part-time (evening) programs are generally older, employed full-time, and may have family commitments. Therefore, it is logical for full-time enrollees to focus on pursuing higher education studies, and for part-time students to focus on employment rather than higher education goals.

Students reported satisfaction with the overall college experience, though they were dissatisfied with college facilities and services. They seemed inclined to overlook inadequate and/or unavailable college facilities and services and to focus instead on their primary goal preparation for higher education. This finding contradicts research and theory linking perceptions of the social and physical aspects of the college environment to student education outcomes (see Astin, 1993; Jenks, Kahane, Bobinski, & Piermarini, 1979; Kuh & Hu, 2001; Tinto, 1993; Veltri, Banning, & Gray Davies, 2006). However, Pascarella and Terenzini (2005) found that educational institutions with an academic rather than a structural focus fostered more learning and cognitive growth. Findings from the current study seem to confirm this. Of course, it is important for colleges to regularly measure student satisfaction. This assessment can guide institutional decisions and determine areas requiring urgent attention (Noel-Levitz, 2010). Ultimately, measuring student satisfaction may enhance the quality of the undergraduate experience and increase educational benefits to students and their families (Bryant, 2006). Appraisal of student satisfaction is also useful for institutional self-study and program accreditation processes in Jamaican community colleges. Pace (1984) believed colleges should be held accountable for providing resources, programs and activities that motivate student learning and development. Given the decline in financing of postsecondary education by

Caribbean governments (Howe, 2003), Jamaican community colleges do not have adequate funding for needed programs and resources (Grant-Woodham & Morris, 2009; Wolff, 2009). Therefore, community colleges are forced to be creative, and to prioritize areas they consider critical to student academic outcomes. For this reason, they may be forced to place less focus on student social and personal development programs and resources.

Although more research is required for a fuller understanding of students' perceived readiness for postcollege goals, findings from this study lead to five major conclusions. First, higher education was the primary post-college goal of students surveyed in this study. This means most full-time students plan to enter higher education institutions as soon as they complete current community college studies, and most part-time students intend to pursue advanced studies while working. Second, classroom engagement was the strongest predictor of perceived readiness for higher education and work. By contrast, extracurricular involvement had minor effects on students' perceived readiness for both outcomes. Third, mother's education influenced perceptions of readiness for higher education and work, though the effects were minimal. Fourth, student age was a significant predictor of perceived readiness for work and determined involvement in extracurricular activities. Finally, satisfaction with college predicted perceptions of readiness for higher education. Students apparently valued the college experience although they were not satisfied with services and facilities at their respective colleges.

Recommendations for Practice and Policy

The following recommendations for practice and policy are based on findings from this survey study:

1. Transition into higher education was the chief postcollege goal of Jamaican community college students. Although students believed they were ready for this transition, the

process can be frustrating. Community college and university educators need to address the challenges related to student transfer. Current arrangements foster system-wide cooperation among community college instructors for curriculum planning and student assessment. However, except for collaboration on university programs franchised to the community colleges, no cooperative education arrangements exist between community college and university educators. It is therefore recommended that university instructors work closely with community college instructors to prepare students for university study. Both institutions may need to implement policies to accommodate this collaboration. For example, university instructors could teach pre-determined course topics, write course material, conduct education seminars, and serve as guest presenters. Both groups could share education and informational resources, and work together on student assessments and curriculum review. Such collaboration may remove redundancies from the curriculum.

2. Students also expected to transition into careers after completing community college studies. Some students planned to start their first jobs, others expected to return to jobs held previously, and a third group indicated that they would seek new job opportunities. Yet, they reported little readiness for preparing work documents and for participating in team projects. Community college instructors and work experience coordinators should emphasize activities within and outside of the classroom that help students develop these competencies. For example, students should be encouraged to participate in more workbased team projects for course credit. Taylor-Stone (2008) contended that tertiary institutions are not adequately training students for the workforce, and that they are not equipping the workforce with critical thinking, digital technology, and problem solving

skills. Based on these claims as well as findings from the study, it is imperative that community college administrators and program coordinators pursue stronger cooperative arrangements with employers and business leaders to more effectively prepare students for the workforce. These partnerships should allow employers to serve as advisors on business curriculum panels, and influence curriculum design and review. Survey respondents revealed interest in attending employment-based information forums. Program coordinators should work alongside employers to design a manual that informs students about general workplace practices and careers related to their specific fields. The manual should be regularly updated to reflect contemporary practices and trends. Current work experience policies may also need to be reviewed and amended where necessary.

3. Regardless of postcollege goals, students reported greatest benefits from class involvement, and only limited gains from involvement in extracurricular activities. They also indicated they were least prepared to write effective essays. Therefore, instructors should focus on developing essay writing skills. Also, in light of prevailing economic constraints, class involvement should be prioritized, and teachers should use available resources to encourage greater classroom engagement in varied learning activities. Moreover, teaching strategies that facilitate cooperative learning should be emphasized. To this end, colleges should provide professional development opportunities and support for teachers to effectively engage students in the classroom. Likewise, ongoing training should be provided for staff members directly involved in student services. Examples of appropriate training and professional development opportunities include courses, web sites, discussion forums, seminars and conferences, and mentoring programs with master teachers.

Recommendations for Future Research

Based on the findings from this survey study, the following recommendations for future research are provided:

- Replicate this study with students at the community college who are not enrolled in community college-developed programs. Compare results from the new study with results from this study of students in community college-developed programs to determine if there are any similarities and differences. If there are differences, ascertain where they exist, what they mean, and how they can be useful.
- 2. Using qualitative research methodology such as interview or case study, repeat this student perception study in Jamaican community colleges. Qualitative research will allow for rich and detailed descriptions of findings, as students describe their feelings and tell their own stories. The use of open-ended questions like Item 51 on the survey instrument used in this study (see Appendix F) will allow students to fully describe their community college experiences and share their views on how prepared they feel for higher education and work goals. Data obtained from this study can then be coded according to common themes. Though not generalizable, these detailed findings will be very useful to community college educators.
- 3. This study found small but significant effects of college extracurricular involvement on perceived readiness for work and for higher education, respectively. Tinto (1998) referred to colleges as communities in which social integration is only possible if supportive peer and faculty relationships exist, and if students are committed to the institution. Generally, students with work and family responsibilities are less likely to have these supportive college relationships. It may also be that students are motivated to achieve academic

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success and their positive perceptions are tied to high levels of self-efficacy. According to Bandura (1986) learners who possess high levels of self-efficacy are resilient and maintain efforts necessary to perform successfully and achieve their aims. Conduct a study that examines the relationship between motivation and perceived readiness for postcollege goals.

- 4. The current study measured students' perceptions at one point in time. Perceptions are subject to change. Moreover, students' beliefs about their readiness for higher education may not be supported by actual readiness data. The Jamaican community colleges have been accused of substandard tertiary education programs (Grant-Woodham & Morris, 2009) and students have experienced difficulties when they try to transfer into some universities (Miller, 2005). Conduct a study that investigates the academic performance of students from the current study sample who have transferred into local public and private universities. Use variables such as GPA, time to degree, and graduation rates to measure academic performance. Compare findings from the new study with results from this study.
- 5. Conduct a study that explores perceptions of community college teachers that taught students in this study, university instructors, and employers about the preparation of community college students for higher education and career goals. Compare results of the new study with this student perception study.
- 6. One of the limitations of this study was that it only examined the perceptions of students successful (i.e., in final-year) at the community college. Therefore, conduct a study that compares perceptions of readiness for higher education and work of different groups of students enrolled in Jamaican community college-developed programs.

Conclusion

Jamaica needs to increase participation in postsecondary education in order to promote and sustain economic development (UNESCO-UIS, 2009). Enhancing higher education and training will produce an efficient workforce and increase global competitiveness (World Economic Forum, 2009, 2010). The Jamaican government has embarked upon a national development plan targeting economic and social development (PIOJ, n.d.). A fundamental goal is to achieve a globally competitive postsecondary education system that effectively harmonizes work and school. Despite limited resources, Jamaica's community colleges have proven that they are able to provide access to a wide cross-section of persons, some of whom would otherwise be unable to pursue postsecondary education. Over time, the colleges have improved their image by aggressively pursuing and attaining program recognition and accreditation. Yet, the absence of an efficient integrated postsecondary education system prevents community college graduates from transitioning smoothly into public universities (Evans & Burke, 2006; Stennett, 2005). Concerns have also been raised about students' preparation for workforce transition (Wolff, 2009). These circumstances suggested a need to examine students' perceptions of their readiness for post community college goals, i.e., higher education and work.

Increasingly, college students globally are demanding an education that is relevant, convenient, responsive, and flexible, and they have many options from which to choose (Alfred et al., 1999). Students enrolled in Jamaica's community colleges have the same expectations. Therefore, community college educators should consistently gauge student perceptions of the collegiate experience, and engage them in meaningful learning activities. By so doing, they will be better able to manage the quality of this experience and enhance student outcomes.

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APPENDICES

Appendix A

Map: Jamaica Community Colleges

Map of Jamaica Showing Community Colleges



Key:

- College A Kingston and Saint Andrew; Saint Thomas
- College B Saint Catherine
- College C- Saint James
- College D Saint Ann and Saint Mary
- College E Manchester and Clarendon
- College F Saint Ann
- College G Saint Elizabeth
- College H Portland

Appendix B

IRB Approvals

KIMBERLY C Fowler

Actions To: Jay W Rojewski Cc: Dawn Vivienne Smith-henry Inbox Tuesday, August 03, 2010 9:49 AM PROJECT NUMBER: 2011-10017-0 TITLE OF STUDY: Perceived Readiness of Jamaican Community College Students for Post-College Goals PRINCIPAL INVESTIGATOR: Dr. Jay W. Rojewski

Dear Dr. Rojewski,

The University of Georgia Institutional Review Board (IRB) has reviewed and approved your above-titled proposal through the exempt (administrative) review procedure authorized by 45 CFR 46.101(b)(2) - Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, /unless:/(i). the information obtained is recorded in such a manner that human participants can be identified, directly or through identifiers linked to the participants; /and/(ii). any disclosure of the human participants' responses outside the research could reasonably place the participants at risk of criminal or civil liability or be damaging to the participants' financial standing, employability, or reputation.

Your approval packet will be sent by mail. Please remember that any changes to this research proposal can only be initiated after review and approval by the IRB (except when necessary to eliminate apparent immediate hazards to the research participant). Any adverse events or unanticipated problems must be reported to the IRB immediately. The principal investigator is also responsible for maintaining all applicable protocol records (regardless of media type) for at least three (3) years after completion of the study (i.e., copy of approved protocol, raw data, amendments, correspondence, and other pertinent documents). You are requested to notify the Human Subjects Office if your study is completed or terminated.

Good luck with your study, and please feel free to contact us if you have any questions. Please use the IRB number and title in all communications regarding this study.

Regards,

Kim Fowler, CIP Human Subjects Office 627A Boyd Graduate Studies Research Center University of Georgia Athens, GA 30602-7411 <u>kfowler@uga.edu</u> Telephone: 706-542-5318 Fax: 706-542-3360 <u>https://www.ovpr.uga.edu/compliance/hso/</u>

IRB Approval - Amendment - Rojewski and Smith-Henry-Final Study

PROJECT NUMBER: 2011-10017-1

TITLE OF STUDY: Perceived Readiness of Jamaican Community College Students for Post-College Goals

PRINCIPAL INVESTIGATOR: Dr. Jay W. Rojewski

Dear Dr. Rojewski,

The University of Georgia Institutional Review Board (IRB) has reviewed and approved your request for modifications to the above-titled human subjects proposal. It was determined that the amendment request continues to meet the criteria for exempt (administrative) review procedures.

Your approval packet will be sent via campus mail. Please remember that any changes to this research proposal can only be initiated after review and approval by the IRB (except when necessary to eliminate apparent immediate hazards to the research participant). Any adverse events or unanticipated problems must be reported to the IRB immediately. The principal investigator is also responsible for maintaining all applicable protocol records (regardless of media type) for at least three (3) years after completion of the study (i.e., copy of approved protocol, raw data, amendments, correspondence, and other pertinent documents). You are requested to notify the Human Subjects Office if your study is completed or terminated.

Good luck with your study, and please feel free to contact us if you have any questions. Please use the IRB number and title in all communications regarding this study.

Regards,

Kim Fowler, CIP Human Subjects Office 627A Boyd Graduate Studies Research Center University of Georgia Athens, GA 30602-7411 kfowler@uga.edu Telephone: 706-542-5318 Fax: 706-542-3360 http://www.ovpr.uga.edu/hso/

Appendix C

Letter of Requests to Administer Survey

Permission to Administer Survey

Letter to CCCJ Executive Director

May 11, 2010

Address of Executive Director

Dear Sir:

Permission to Conduct Dissertation Study

I am writing as follow-up to discussions with the previous Executive Director in 2009 concerning my dissertation study. My purpose in writing is to inform you about my dissertation study and to seek the Council's assistance in completing the study.

The dissertation study, entitled *Perceived Readiness of Jamaican Community College Students for Post College Goals*, is being conducted under the direction of Dr. Jay W. Rojewski in the Program of Workforce Education at the University of Georgia. The purpose of the study is to examine students' perceptions of their readiness for immediate goals after the community college experience. More specifically, the study seeks to investigate the extent to which involvement in class and college activities combined with students' personal and situational characteristics explain perceived readiness for higher education and employment goals. The study will contribute to existing literature, and findings may inform on-going CCCJ institutional and program accreditation processes, and influence policy and practice.

In order to meet the objectives of this study, I am requesting permission to conduct a pilot study with 30-50 students in late May or early June, and then to administer the full survey from mid- to late September or early October. I would like to survey final-year students enrolled full- and part-time in CCCJ associate and bachelors' degrees at all eight community colleges. I will therefore need your assistance to identify students enrolled in these programs across the eight colleges.

The survey is anonymous and there are no known risks or discomforts associated with the research (see survey prototype). A few days before administering the full survey I would need to distribute a letter describing the study to the students. A copy of this letter is also attached. The actual survey administration at each college would include the following: a brief introduction to the survey, distributing it to students, allowing them enough time to complete it, and then collecting it. Completing the survey should take approximately 10 minutes and students will be informed that participation is voluntary. Consequently, they may choose not to participate or may stop at any time.

I will be happy to answer any questions about the study. Please feel free to call me at 706-389-6019 or send an email to <u>dshenry7@uga.edu</u> or <u>dshenry7@gmail.com</u>. You may also contact my faculty advisor, Dr. Rojewski, at 706-542-4461 or <u>rojewski@uga.edu</u> if you have questions or concerns. If you agree to allow me to conduct the study with your students, please sign and have each community college principal/president sign the attached letter of authorization. Please return to me by mail using the attached self-addressed envelope by May 10.

I anticipate a favorable response and thank you for your consideration.

Sincerely,

Dawn Smith-Henry Graduate Student University of Georgia Attachments

Letter to College Principals/Presidents

October 22, 2010

Dear Principal/President

Permission to Conduct Research: November 15-30, 2010

You may recall our telephone conversation in June, when I informed you that the CCCJ Executive Office has granted me permission to survey students across the community college network (see attachments). Consequently, this letter is a reminder and also a formal request for permission to survey CCCJ students at your College, during the period November 15-30, 2010. I have also contacted other administrative personnel at your College and am still awaiting CCCJ enrollment statistics.

As I indicated in our earlier communication, this survey is part of my dissertation study: *Perceived Readiness* of Jamaican Community College Students for Post College Goals. The study is being conducted under the direction of Dr. Jay W. Rojewski, Professor in the Program of Workforce Education at the University of Georgia. The purpose of the study is to examine students' perceptions of their readiness for immediate goals after the community college experience. More specifically, the study seeks to investigate the extent to which involvement in class and college activities combined with students' personal and situational characteristics may explain perceived readiness for higher education and employment goals. It is hoped that findings from the study may inform on-going CCCJ institutional and program accreditation processes.

The survey will be conducted via direct classroom administration, according to procedures and protocol approved by the Institutional Review Board at the University of Georgia. This means that student confidentiality and anonymity will be maintained. Moreover, students should require no more than 10-15 minutes to complete the questionnaire. If possible, I would prefer to administer the questionnaire during the first 15 minutes of the class period.

To ensure that the survey process is smooth and to minimize disruption of regular class schedules, I would like to receive the following as soon as possible:

1. Confirmation of suitable dates to visit your college (during the prescribed period)

2. Class schedules and enrollment data for CCCJ students, specifically for full- and part-time final-year students at your main and subsidiary campuses (even if data is incomplete).

You may contact me via email at <u>dshenry7@gmail.com</u> or by telephone at 706-351-7279. After November 10, 2010, you may contact me via email or by telephone: 876-939-0445 (Home) or 876-859-4185 (Cell). I anticipate a favorable and timely response and look forward to visiting your College.

Sincerely,

Dawn Smith-Henry Doctoral Candidate University of Georgia

Attachments



Multi-Purpose Complex, Lot 14, Portmore Town Centre, Portmore, St. Catherine • Tel: 704-0114 • Chairman: Jeanette Grant Woodham , Executive Director: Cebert Adamson

2010 May 17

TO WHOM IT MAY CONCERN

The Council of Community Colleges of Jamaica (CCCJ) agrees to allow Dawn Smith-Henry, a doctoral student in the Program of Workforce Education at the University of Georgia, under the direction of Dr. Jay W. Rojewski, to survey students at Jamaican community colleges for the dissertation study entitled, *Perceived Readiness of Jamaican Community College Students for Post College Goals.* We understand that the survey is anonymous, there are no known risks or discomforts associated with the research, and involvement in the study is voluntary; therefore, students may choose not to participate or may stop at any time. The survey will be conducted from mid-to late September until October 2010.

Executive Director Name (Please print)

COUNCIL OF COMMUNITECOLLEGE OF JAMAICA Lot 14, Power of Faith Muti-purpose Complex Portmore, St. Catherine

Permission to Survey CCCJ Students – Extended Deadline

URGENT

Wednesday, October 20, 2010 8:53 AM From: "Cebert Adamson" <execdirect@cccjamaica.org> To: dawnsmithhenry@yahoo.com Dear Dawn,

The Council of Community Colleges of Jamaica (CCCJ) gives permission to Dawn Smith-Henry, under the guidance of Dr. Jay Rojewski of the University of Georgia, Department of Workforce Education, Leadership and Social Foundations, to survey students across the community college network, as part of research for a dissertation study, entitled: *Perceived Readiness of Jamaican Community College Students for Post-College Goals*.

The research will be conducted from November-December, 2010.

Cebert Adamson Executive Director The Council of Community Colleges of Jamaica Telephone: (876) 704-0111 (to 4) Fax: (876) 704-0110 Website: <u>http://cccj.edu.jm/</u> Appendix D

Research Information Sheet for Participants

Administration Script

PERCEIVED READINESS OF JAMAICAN COMMUNITY COLLEGE STUDENTS FOR POST-COLLEGE GOALS

Research Information Sheet for Participants

We are currently conducting a study on the extent to which student involvement at the community college impacts readiness for goals after the community college experience. The study is entitled, "Perceived Readiness of Jamaican Community College Students for Post-College Goals". We need your help to better understand the nature of student involvement at Jamaican community colleges and how this involvement may affect readiness for work or higher education studies. The study is being conducted by Dawn Smith-Henry, a doctoral student from the Department of Workforce Education at The University of Georgia, under the guidance of Dr. Jay Rojewski, Professor of Workforce Education. The information you provide will be used in a dissertation prepared by Dawn Smith-Henry and supervised by Dr. Jay Rojewski.

However, your participation in this study is **strictly voluntary**. You can refuse to take part or stop taking part at any time without penalty or loss of benefits to which you are otherwise entitled. Your grades or class standing will not be affected by your decision to participate or not to participate in this research study. If you choose not to participate in the study, please place a blank questionnaire inside the envelope.

We hope you will choose to participate in this important study. Participants must be 18 years of age or older and must be in the final year of their programmes. There are no direct benefits to study participants. However, results of the study may be useful to Jamaican community college educators and administrators who are engaged in institutional self-study and programme accreditation processes. Findings may also challenge Jamaican educators to more vigorously pursue and/or strengthen staff professional development efforts and collaborative arrangements with higher education institutions and with industry. The study is also expected to enhance existing scholarly research.

Please note that participation is **completely confidential**. To protect your confidentiality and option to not participate, only you will handle the questionnaire after it is distributed. You will be asked to place your own questionnaire into a large envelope at the front of the room. The teacher of this course will never see your completed questionnaire and the researchers will not be able to identify individual respondents. When we publish our findings, the report will be based on groups and not on individuals.

If you choose to participate, you will be asked to complete a questionnaire. Most people will be able to complete the questionnaire in less than 15 minutes. There is no right or wrong answer and we do not foresee this study causing you any harm or discomfort. However, if you are uncomfortable about completing the questionnaire, simply return a blank questionnaire.

Study participants will be given candy and/or simple tokens such as key rings, book markers and colored pens as incentives.

If you have any questions about this research, please contact Dawn Smith-Henry at email address <u>dshenry7@gmail.com</u> or telephone number 706-389-6019; or Dr. Jay Rojewski via email address <u>rojewski@uga.edu</u> or telephone number 706-542-4461. The Department's mailing address is Workforce Education, Leadership, & Social Foundations, 221 River's Crossing, The University of Georgia, Athens, GA 30602 (telephone number 706-542-1682). For questions or concerns that may arise during this study, please write to: Human Subjects Office, The University of Georgia, 612 Boyd Graduate Studies Research Center, Athens, GA 30602-7411. You may also contact them via email at <u>IRB@uga.edu</u> or call 706-542-3199.

Please note: Completion and return of this questionnaire implies that you have read this information and consent to participate in the research.

THANK YOU FOR PARTICIPATING IN THIS IMPORTANT RESEARCH!

THE STUDENT INVOLVEMENT QUESTIONNAIRE

Administration Script

- 1. The researcher will enter the classroom at a pre-determined time that was scheduled with input of the class instructor and approved by the program coordinator.
- 2. The researcher will introduce herself to the students.
- 3. The researcher will explain her presence in the classroom and the purpose of the study.
- 4. The researcher will distribute the *Research Information Sheet* to each student and give students enough time to read it.
- The researcher will review the following points discussed in the *Research Information Sheet*: (a) participation is strictly voluntary, so participants may return a blank questionnaire if they choose not to participate and (b) identities and participation are completely confidential.
- 6. The researcher will place a large envelope in a visible and neutral location in the classroom for collection of the questionnaires. Participants will be instructed to place completed questionnaires inside the envelope.
- 7. The researcher will distribute questionnaires to students and emphasize the following: (a) each questionnaire consists of five pages comprising five sections, (b) sections 1-3 and section 5 should be completed by **all participants**, and (c) section 4 should **only be completed by those who intend to pursue higher education studies** after completing current studies at the community college.
- 8. The researcher will inform participants that she will remain in the classroom to answer any questions or address any concerns that might arise. She will ask participants not to consult with each other as they complete the questionnaire.
- 9. For the pilot study, time taken to complete the questionnaire will be recorded and student feedback on the clarity of items and instructions will be obtained after the survey is completed.
- 10. The researcher will express appreciation to participants by handing out simple tokens.
- 11. The researcher will collect the envelope, seal it and exit the classroom.

Appendix E

Phone Call Script

Follow-Up Phone Call Script

PILOT AND FINAL STUDY PHONE CALL SCRIPT

FOR PROGRAM COORDINATORS AND CLASS INSTRUCTORS

Researcher: Hello, my name is Dawn Smith-Henry and I am a graduate student at the University of Georgia. I am currently conducting a dissertation study under the guidance of Dr. Jay Rojewski, Professor of Workforce Education at the University of Georgia.

The title of the study is: "Perceived Readiness of Jamaican Community College Students for Post-College Goals". We are seeking the help of your students to better understand the nature of student involvement in Jamaican community colleges, and how this involvement may affect readiness for work or higher education studies.

I have a letter granting permission to survey your students. However, I would like to emphasize that student participation in the study is voluntary. If the students choose to participate, they will be required to complete a questionnaire that should take no more than 10-15 minutes to complete. Before the questionnaire is distributed, each student will be given a *Research Information sheet* to read. The Information sheet will explain that participation is voluntary, that identities and responses will be treated with the strictest confidence, and that completion and return of the questionnaire implies that they have read the information and agree to participate in the research. There are no known risks to students from participating in the study.

We propose to administer the survey to students in their respective classrooms. Consequently, I am seeking permission to meet with you at a mutually convenient time in order to discuss class schedules, and to arrange a date and time for meeting your students. I will also be available to address any further questions or concerns related to the study.

I do appreciate your willingness to facilitate this important research. I am hopeful that findings from the study will benefit the Jamaican community college sector. For my part, I will make every effort to administer the survey as efficiently as possible so that disruption of classroom instruction will be minimized.

I look forward to meeting with you. Thank you!

FOLLOW-UP PHONE CALL SCRIPT FOR PROGRAM COORDINATORS AND/OR CLASS INSTRUCTORS

Hello, my name is Dawn Smith-Henry and I am a graduate student at the University of Georgia. You may recall that I recently administered a questionnaire to your students, as part of my dissertation study into student involvement and perceived readiness for goals after the Jamaican community college experience.

Thanks for allowing me to survey students during regular class time. I hope my presence did not create too much of a distraction and that you were able to make up for time lost because you facilitated me.

Unfortunately, a few groups have still not been surveyed. I am therefore requesting permission to again meet with you in order to discuss class schedules for these groups and to arrange dates and times for meeting with students.

As before, I would like to conduct the survey via direct classroom administration and I promise to honor the confidence and trust placed in me. All procedures previously followed to ensure participant privacy and confidentiality will be adhered to in this second administration. Once again, I will endeavor to conduct the survey as quickly and efficiently as possible. Please accept my sincerest thanks for the vital role you are playing in accommodating this important research.

Appendix F

Survey Instrument



Student Involvement Questionnaire

Students in Jamaica's community colleges vary considerably with respect to how they approach their college experience. Some are very involved in activities while others are not. Some plan to go right into the workforce, while others plan to continue their education.

This survey is designed to help college educators better understand their students. Your anonymous and frank responses will provide useful information for programme planning and improvement. There are no right or wrong answers. Please take a few minutes to respond to the following questions.

The Questionnaire has six (6) sections. All participants are asked to **complete Sections 1-3 and Sections 5 and 6**. **Please complete Section 4 if you intend to pursue higher education studies** after completing studies at the community college.

Section I. Involvement in Classes and Course-Related Activities

This Section asks you to assess the extent of your involvement, and how much effort you put into a variety of courserelated activities **during your entire time at this college**.

To what extent do you agree with each of the following statements?	Please circle one choice for each item			
1. I actively participated in general class discussions	strongly disagree	disagree	agree	Strongly agree
2. I actively participated in group- assigned course work	strongly disagree	disagree	agree	Strongly agree
3. I put a lot of effort into writing an essay or term paper	strongly disagree	disagree	agree	Strongly agree
4. I put a lot of effort into doing research for class assignments	strongly disagree	disagree	agree	Strongly agree
5. I put a lot of effort into studying for a test or final exam	strongly disagree	disagree	agree	Strongly agree
6. I regularly used concepts learned in class to complete assignments	strongly disagree	disagree	agree	Strongly agree
7. I regularly met deadlines for submitting course assignments	strongly disagree	disagree	agree	Strongly agree
8. I frequently discussed class topics with peers outside of the classroom	strongly disagree	disagree	agree	Strongly agree
9. I discussed class content with instructors outside of class	strongly disagree	disagree	agree	Strongly agree
10.I discussed my academic progress with an instructor or course advisor	strongly disagree	disagree	agree	Strongly agree

Section II. Involvement in Extracurricular Activities

This Section asks about your level of involvement in planned and unplanned College activities *during your entire time at this college*.

How frequently were you involved in each of the following activities?	Please circle one choice for each item			
11. Participating in student council or club meetings on campus	never	rarely	sometimes	often
12. Voting in student council elections	never	rarely	sometimes	often
13. Considered holding a leadership position in a club on campus	never	rarely	sometimes	often
14. Planning and organizing a campus event	never	rarely	sometimes	often
15. Participating in a college project not required for course credit	never	rarely	sometimes	often
16. Taking part in a campus-based sport activity	never	rarely	sometimes	often
17. Participating in a campus-organized recreational activity	never	rarely	sometimes	often
18. Attending information sessions about future employment opportunities	never	rarely	sometimes	often
19. Attending information sessions about future educational opportunities	never	rarely	sometimes	often
20. Attending information sessions about campus procedures	never	rarely	sometimes	often

Section III. Readiness for Work

Please indicate how ready you feel to begin or continue employment **based on your experiences** at this college.

How ready do you feel to perform each of the following work-related tasks?	Please circle one choice for each item			
21. Completing a team project in the workplace	Not ready	Somewhat ready	Ready	Very ready
22. Preparing work-related documents	Not ready	Somewhat ready	Ready	Very ready
23. Using the computer and Internet for work-based tasks and communication	Not ready	Somewhat ready	Ready	Very ready
24. Receiving and effectively communicating verbal messages at work	Not ready	Somewhat ready	Ready	Very ready
25. Applying critical thinking and problem- solving methods to work-related tasks	Not ready	Somewhat ready	Ready	Very ready
26. Observing and correctly following on- the-job procedures and demonstrations	Not ready	Somewhat ready	Ready	Very ready
27. Meeting deadlines	Not ready	Somewhat ready	Ready	Very ready
28. Maintaining work standards and rules of conduct	Not ready	Somewhat ready	Ready	Very ready

Section IV. Readiness for Higher Education Studies

Please complete this Section IF YOU PLAN TO PURSUE HIGHER EDUCATION STUDIES after the community college.

How ready do you feel to perform each of the following tasks at college?	Please circle one choice for each item			
29. Using different sources to locate information for class assignments	Not ready	Somewhat ready	Ready	Very ready
30. Reading and making sense of new course materials at college	Not ready	Somewhat ready	Ready	Very ready
31. Writing effective essays	Not ready	Somewhat ready	Ready	Very ready
32. Making strong oral arguments and presentations	Not ready	Somewhat ready	Ready	Very ready
33. Submitting assignments on time	Not ready	Somewhat ready	Ready	Very ready
34. Studying for a class test or final exam	Not ready	Somewhat ready	Ready	Very ready
35. Working as part of a team to complete group assignments	Not ready	Somewhat ready	Ready	Very ready

Section V. Satisfaction with College (*PLEASE ANSWER THIS SECTION*) *Please rate your level of satisfaction with the college you are currently attending*

To what extent do you agree with each of	Please circle one choice for each item			
the following statements?				
36. I am satisfied with student services at this college	strongly disagree	disagree	agree	Strongly agree
37. I am pleased with facilities at this college	strongly disagree	disagree	agree	Strongly agree
38. This college is an exciting place to be	strongly disagree	disagree	agree	Strongly agree
39. Overall, my experiences at this college have been very satisfactory	strongly disagree	disagree	agree	Strongly agree

Section VI. General Information (PLEASE ANSWER THIS SECTION)

Please answer each of the following questions. Write your response in the space provided or check ($\sqrt{}$) the box that represents your choice. Remember, no attempt will be made to identify you.

40. Are you taking classes full-time or part-time at this college? (Check one)

- □ Full-time (15 or more course credits each semester)
- □ Part-time

41. What is your programme major? _____

- 42. What is your IMMEDIATE goal once you complete studies at this college? (Check only one)
 - □ Start my first job
 - □ Return to a job I had before coming to college
 - \Box Look for a new job
 - \Box Seek a bachelor's degree
 - □ Seek a Masters degree
 - □ Continue working while pursuing higher studies
 - Other (please describe)

43. Which of the following best describes your work status for most of your current college career? (*Check one*)

- \Box I had a full-time job
- \Box I had a part-time job
- □ I didn't work
- 44. If you did work, was it on or off campus?
 - □ I worked on campus
 - \Box I worked off campus
- 45. Approximately how many hours each week do you spend on the college campus, not including time spent on a paid job? ______
- 46. What is your gender?
 - □ Male
 - □ Female

47. What year were you born?_____

48. If you have family responsibilities, how do they affect your classes? (Choose one response)

- □ I do not have family responsibilities
- □ My family responsibilities do not interfere with my classes
- □ They take a little time from my classes
- \Box They take a lot of time from my classes
- 49. If you have family responsibilities, how do they affect your college activities? (Select only one response)
 - □ I am not involved in college activities
 - □ My family responsibilities do not interfere with my college activities
 - □ They take a little time from my college activities
 - □ They take a lot of time from my college activities

50. Please describe your parent or guardian's highest educational level

Mother	or other guardian (check one)	Father	or other guardian (check one)
	Primary school		Primary school
	Some secondary or high school		Some secondary or high school
	Secondary or high school diploma		Secondary or high school diploma
	Some college		Some college
	Associate degree		Associate degree
	Bachelor's degree		Bachelor's degree
	Masters degree or higher		Masters degree or higher
	I don't know		I don't know
51. Would you like to share anything else about your experiences at this college?

THANK YOU FOR SHARING YOUR VIEWS!

Appendix G

Pilot Study Report

Memorandum

To: Jay Rojewski, Committee Chair Thomas Valentine, Methodologist Bettye P. Smith Myra N. Womble

From: Dawn Smith-Henry

Date: October 19, 2010

Subject: Results of Pilot Survey

A. Administration Procedures

After receiving initial approval from the Institutional Review Board (IRB) the first week of August 2010, I administered the pilot survey to 61 students at one of eight Jamaican community colleges that will be included in the final study. However, participants in the pilot survey will not be part of the final study. Survey participants comprised three groups of students with similar demographics—age, gender, full- and part-time enrollment status, and major—to the population for the final study. Thus, the sample included final-year students enrolled full- and part-time in associate and bachelors' degree programs at this college. The survey was conducted via direct classroom administration and according to procedures and protocol approved by the IRB for the pilot and final study.

B. Data Collection Procedures

In administering the survey, I adhered to instructions contained in the *Administration script* and the *Research Information Sheet* (Attachment C). For example, I placed a large envelope in a visible and neutral location in each classroom and instructed participants to place completed questionnaires and/or returned blanks inside the envelope. On the whole, participants appeared quite willing to complete the questionnaires and they complied with my request to place the questionnaires inside the envelope. On average, participants took approximately 10 minutes to complete the survey. No blanks were returned, but several questionnaires had unanswered items. After completing the survey, participants provided feedback on the clarity of instructions and items, general appearance, and length of the instrument. On the whole, I was pleased with the success of the pilot administration and data collection process.

C. Analysis of Pilot Data

Guided by my methodologist, I analyzed the pilot survey data to examine the following:

• Item distribution

- Reliability of the scales
- Measurement sensitivity

i. Item Distribution

Of the 35 items comprising four scales—*Involvement in Classes and Course-Related Activities, Involvement in Extracurricular Activities, Readiness for Work*, and *Readiness for Higher Education Studies*—all but 4 items demonstrated adequate variance on the 4-point Likert response scale. So, although some skewness was exhibited, we determined that variance was satisfactory for 31 items. The four items that showed restricted variance came from the Involvement in Classes (IC) and Perceived Readiness for Higher Education (PRH) scales. The items were: (a) item 2 (ic2): I participated in group-assigned course activities, (b) item 6 (ic6): I effectively used concepts and methods learned in class to answer new class assignments, (c) item 33 (rh33): Submitting assignments on time, and (d) item 34 (rh34): Studying for a class test or final exam. For ic2, no one either strongly disagreed (response one) or disagreed (response two) with the statement; instead, 72% expressed strong agreement. On the other hand, although no one expressed strong disagreement, there was a wider range of responses to ic6, rh33, and rh34.

Table 1 summarizes survey participants' use of the response range for the four identified items.

Item #	Response Range	Frequency	Percent Using Range
	3	17	28
ic2	4	44	72
	Total	61	100
	2	5	8
	3	36	60
ic6	4	19	32
	Total	60	100
	Missing	1	
	2	6	11
	3	24	44
rh33	4	25	45
	Total	55	100
	Missing	6	
	2	10	18
rh34	3	23	42
	4	22	40
	Total	55	100
	Missing	6	

Table 1: Response range for identified items

Decisions Taken

- ic2: This item demonstrated most restricted variance. The methodologist and I agreed that the problem could be that student participation in group-assigned activities is not optional. Therefore, focusing on level of effort might improve variance. Consequently, the word *actively* has been added and the revised item is now similar to ic1. It reads: *I actively participated in group-assigned course work*.
- ic6: We felt that this item was unnecessarily complex, which may have contributed to its limited variance. I considered simplifying or removing it from the scale, but decided to examine results of the reliability analysis before making a final decision.
- rh33 & rh34: We decided not to force variance since students could be correctly reporting readiness for work and higher education. These items therefore remain unchanged.

ii. Reliability Analysis

Reliability analyses of the instrument's four scales were carried out. Examinations of alpha if item deleted found that in 34 of the cases all items contributed to reliability. In only one case did we find a problem. Item ic4—*I regularly used the library or internet to do research for a class assignment*—dramatically reduced reliability of the IC scale, which reported the lowest reliability of .71. Thus, except for the IC scale, we were generally satisfied with results of the reliability analysis.

Alpha reliabilities for all four scales are reported in Table 2, while Table 3 reports alpha reliabilities if items are deleted from the IC scale.

Scale	Cronbach's	
	Alpha	No. of Items
Involvement in Classes (IC)	.71	10
	.74	9 (ic4 removed)
Involvement in Extracurricular		
Activities (IE)	.84	10
Readiness for Work (PRW)	.87	8
Readiness for Higher Education (PRH)	.81	7

Table 2. Alpha reliabilities for scales IC, IE, PRW & PRH

Items	Cronbach's
	Alpha if Item
	Deleted
ic1	.68
ic2	.68
ic3	.71
ic4	.74
ic5	.67
ic6	.69
ic7	.71
ic8	.68
ic9	.66
ic10	.67

Table 3. Alpha if item deleted for IC scale

As Table 3 illustrates, all items except ic4 contributed to reliability of the IC scale. Elimination of ic4 increased alpha reliability to .74.

Decisions Taken

- ic4: Upon closer examination and based on survey participant feedback, we identified this as a *double* item—ambiguous in that it combined two ideas in one question. Ultimately, I decided the issue was more one of effort; so, instead of eliminating the item, I decided to refocus it to read: *I put a lot of effort into doing research for class assignments*.
- ic6: Despite showing poor variance, this item contributed to the overall reliability of the IC scale. Hence, it will not be removed, but will be recast as follows: *I regularly used concepts learned in class to complete assignments.*
- iii. Measurement Sensitivity

Scale distributions, inter-correlations and frequencies were examined to determine how well the instrument captured variance in the pilot population.

Scales: Correlations computed for the four scales—IC, IE, PRW, and PRH--revealed that, for the small pilot data, persons who were very involved in class activities felt ready for work and for higher education studies. In other words, class involvement predicted readiness both for work and for higher education studies. Conversely, extracurricular involvement did not predict readiness for work or for higher education. As explained previously, a few scale items demonstrated limited variance. Yet, the pilot instrument documented variance among all items. From these findings we concluded that the instrument's four scales are appropriate for the constructs being studied. Pearson correlations for the four scales are summarized in Table 4.

	IC total	IE total	PRW total	PRH total
IC total				
Sig. (2-tailed)		.215	.001	.000
N	60	59	59	54
IE total				
Sig (2-tailed)	.215		.527	.860
Ν	59	60	59	54
PRW total				
Sig (2-tailed)	.001	.527		.003
N	59	59	60	54
PRH total				
Sig (2-tailed)	.000	.860	.003	
N	54	54	54	55

Table 4. Pearson correlations for scales IC, IE, PRW & PRH

The histograms in Figure 1 illustrate frequency distributions for the four scales





Figure 1. Histograms showing frequency distributions

The histograms demonstrate the variance within all four scales. The IC distribution approximates that of the normal curve despite some skewness, while distribution for the IE scale is positively skewed, indicating that most participants received low scores. On the other hand, distributions for PRW and PRH are negatively skewed, showing that most received high scores.

Demographic Items

The demographics section (items 36-47) contained both closed and open-ended items. Analysis of the pilot survey and participant feedback indicated several problems, some of which are reported on the Pilot Problem sheet (*Attachment D). For example, one response to the question, *what year were you born? (#43)* was '*St. Catherine*'. This impossible value could not be entered in the data. In another case (item #44) both responses were checked and we decided to enter a value of '2'. It is also noteworthy that there were more missing items in

this section than in any other section of the survey. For example, 17 of the 61 survey participants did not respond to item # 40: *Approximately how many hours each week do you spend on the college campus, not including time spent in classes?* For these and other reasons, it was necessary to review and ultimately modify most of the general information items.

- Item #38 asked respondents to identify immediate post-college goals and 26% of respondents selected the *other* option. When responses to this option were examined, the most popular recorded goal was: *Continue working while pursuing higher studies*. This common response influenced revision of this item.
- Item #39: We were concerned that responses to this item (which required participants to indicate their work status while enrolled in college) did not seem logically connected to responses to item #40.

• Responses to item #44 (current living situation) in some cases also appeared to contradict answers to item #45 (financial support). For example, a few persons who indicated they lived at home with parents also said they provided financial support. While this could be true, it is more likely an interpretation problem.

(* See also comments from the final item #47 and the pilot study code book) Changes to Demographic Items

- Item 38: The option, *Continue working while pursuing higher studies*, has been added to the list of post-college goals. This item is now #42.
- Item 39: The options for this item (now #43) have been rewritten, with a follow-up item (#44) included. The new and follow-up items appear in the *Summary of Changes* section.
- Item 40: This item has been reworded to reduce interpretation errors and hopefully improve participant response. The new item (#45) reads: *Approximately how many hours each week do you spend on the college campus, not including time spent on a paid job*?
- Items 44 & 45: These items have been refocused to center on the study's involvement constructs. Item #44(now #48) is linked to class involvement, while item #45 (now #49) was added as a follow-up item with focus on extracurricular involvement. Please refer to the *Summary of Changes* section for the amended items.

I. Other Needed Changes

I felt justified in making changes to three additional items: one from the RH scale and two demographic items.

- Item #29: The original item reads: *Using the library or Internet effectively to locate information*. I decided to modify this item to minimize ambiguity, since it could be interpreted as a 'double' item—two questions in one item. The revised item reads thus: *Using different sources to locate information for class assignments*.
- Item #41: This item asked participants to rate overall satisfaction with college. All 61 participants responded, with 67% satisfied and 7% very satisfied with college. We calculated Pearson correlations and found that satisfaction with college was significantly correlated with involvement in classes, readiness for work and readiness for higher education, but not with extracurricular involvement. Table 4 presents these findings.

	SAT41	IC total	IE total	RW total	RH total
SAT 41					
Sig. (2-tailed)		.041	.749	.019	.003
Ν	61	60	60	60	55

Table 5. Pearson correlations for SAT41 with scales IC, IE, RW & RH

Despite the findings, we were concerned that it is impossible to determine reliability with a one-item scale measure. I therefore explored three options: (a) removing the item, since satisfaction is implied in the instrument's four central scales, (b) changing the response options from a 3- to a 4-point scale, or (c) developing a satisfaction scale by using 4 or 5 items from an already validated college satisfaction scale. I chose the latter

option. The new Satisfaction scale consists of four items, three of which were influenced by the College Environment scale of the Community College Student Experiences Questionnaire (CCSEQ). This scale is included as Attachment E. The revised Satisfaction scale is presented in the final (Summary of Changes) section.

• Items 46a & 46b: Guided by feedback from pilot study participants and cultural norms in the country where research will be conducted, minor changes have been made to response choices for this item. Thus, the following response choices have been added: *primary school, some high school,* and *Masters degree and higher*. The new items (now 50a & 50b) are included in the summary section of this memo.

II. Summary of Changes

This section summarizes all changes that have been made to the instrument. A copy of the updated instrument is included with the older instrument as Attachment B. The final table (5) presents original items that have been revised and the corresponding new items. As indicated, in most cases the new item has been assigned a different number. In addition, where only a word or phrase has been added to the original item, this is highlighted for emphasis.

Old Item	New Item	
#2. I participated in group-assigned course activities	I actively participated in group-assigned course work	
#4. I regularly used the library or Internet to do research for a class assignment	I put a lot of effort into doing research for class assignments	
#6. I effectively used concepts and methods learned in class to answer new class assignments	I regularly used concepts learned in class to answer questions	
#29. Using the library or Internet effectively to locate information	Using different sources to locate information for class assignments	
 #38. What is your IMMEDIATE goal once you complete studies at this college? (Check one) Start my first job Return to a job I had before coming to college Look for a new job Seek a bachelor's degree Seek a Masters degree Other (please describe)	 #42. What is your IMMEDIATE goal once you complete studies at this college? (Check one) Start my first job Return to a job I had before coming to college Look for a new job Seek a bachelor's degree Seek a Masters degree Continue working while pursuing higher studies Other (please describe) 	

Table 6. Original survey items and corresponding changes

Old Item	New Item
 #39. Which of the following best describes your work status for most of your current college career? (Check one) I worked full-time off campus I worked part-time off campus I worked full-time on campus I worked part-time on campus I did not work 	 #43.Which of the following best describes your work status for most of your current college career? (Check one) I had a full-time job I had a part-time job I did not work #44. If you did work, was it on or off campus? I worked on campus I worked off campus
#40. Approximately how many hours each week do you spend on the college campus, not including time spent in classes?	#45. Approximately how many hours each week do you spend on the college campus, not including time spent on a paid job?
 #41. Overall, how satisfied are you with your experiences at this college? O Very satisfied O Satisfied O Not satisfied 	Section V. Satisfaction with College (Items 36-39) To what extent do you agree with each of the following statements? (<i>Strongly disagree/disagree/agree/strongly</i> <i>agree</i>) I am satisfied with educational services at this college I am satisfied with the facilities at this college This college is a stimulating and exciting place My overall experiences at this college have been positive
 #44. Which of the following best describes your current living situation? I live at home with parents and other family members I am a head of household 	 #48. If you have family responsibilities, how do they affect your classes?(Choose only one response) I do not have family responsibilities My family responsibilities do not interfere with my classes They take a little time from my classes They take a lot of time from my classes
 #46a. Please describe your parent or guardian's highest educational level Mother or other guardian (check one) No diploma High school diploma Some college Associate degree Bachelor's degree Graduate degree I don't know 	 #50a. Please describe your parent or guardian's highest educational level Mother or other guardian (check one) Primary school Some high school High school diploma Some college Associate degree Bachelor's degree Masters degree or higher I don't know

III. Final Comments

On the whole, we were pleased with the results of the pilot study. The direct classroom administration and data collection procedures went smoothly, participants appeared to have understood the directions, and the response scales utilized were effective. Moreover, item distribution and reliability analyses were generally very satisfactory and the instrument captured

variance. While substantive changes have been made to a few items, we avoided drastic changes to the instrument that would require another pilot study. I would like to thank the committee for the feedback provided throughout this process and welcome your comments on the pilot results and proposed changes. If I do not hear from you by **November 5**, I will assume I have your approval to continue with the study, pending final approval from the IRB.

Once again, thank you for your continued support and encouragement.

Appendix H

Dissertation Study Code Book

Problems and Limitations

Variable	Values	Description
College ID	A, B, C, D, E, F, G	Letters A-G assigned consecutively to each of 7 Jamaican community colleges that participated in the research, based on sample size from each college
Program ID	1-399 = Assoc Day	Indicate participants' major and enrollment status
	400-499 = Assoc Eve 500-599= Bach Day 600-699 = Bach Eve	An alphanumeric ID was assigned to each participant, with letter representing the participant's college and number indicating major and enrollment status.
IC1-IC10	1=Strongly disagree (SD) 2=Disagree (D) 3=Agree (A) 4=Strongly agree (SA)	Items measuring Involvement in Class (Question: To what extent do you agree with each of the following statements?)
IE11-IE20	1=Never 2=Rarely 3=Sometimes 4=Often	Items measuring Involvement in Extracurricular Activities (Question: How frequently were you involved in each of the following activities?)
PRW21-PRW28	1=Not ready (NR) 2=Somewhat ready (SR) 3=Ready (R) 4=Very ready (VR)	Items measuring Readiness for Work (Question: How ready do you feel to perform each of the following work-related tasks?)
PRH29-PRH35	1=NR 2=SR 3=R 4=VR	Items measuring Readiness for Higher Education (Question: How ready do you feel to perform each of the following tasks at college?)
SATC 36-SATC 39	1=SD 2=D 3=A 4=SA	Items measuring Satisfaction with College (Question: To what extent do you agree with each of the following statements?)
FTPT40	1=* <i>FT</i> 2=PT	Indicate full- and part-time enrollment status in a particular major
MAJ41	 1= *Business studies 2= Hospitality and Tourism Management 3= Computer studies MIS/CABS/CS&E 4=Architecture and Construction technology (ADACT) *Reference categories used for dummy coding 	Assigned by program major (Question: What is your program major?) MIS= Management Information Systems +CABS= Associate degree in Computer Applications & Business Studies +CS&E= Associate degree in Computer Servicing & Electronics +ADACT=Associate degree in Architecture & Construction Technology +Specializations offered by only one college
GOAL42	1=First job 2=Return to job 3=New job 4=Bachelor's degree 5=Master's degree 6=Work and continue studies 7=Other	Post-college goals: 1-3=work only; 4-5=higher education only; 6=work and study (Question: What is your IMMEDIATE goal once you complete studies at this college?) Recoded as follows to facilitate analysis: 1=8; 2=8; 3=8 4=9; 5=9 6=10

WORK43	1=Full-time job	Assigned to indicate employment status
	2=Part-time job	(Which of the following best describes your work status
	3=*Did not work	for most of your current college career?)
WRKPL44	1=On campus	Indicate workplace location—on or off campus
LIDC 45	2=Off campus	
HRS45		Total no. of hours on campus each week, excluding time
		spent on paid job
GEN46	1=Male	Assigned by gender
BIRTH47		Participant date of birth recoded to determine age
FAM CI 48	1–* No family	
17 IVI CL+0	responsibilities	Question: If you have family responsibilities how do they
	2=No class interference	affect your classes?
	3=Little interference	
	4=Much interference	
FAM IE49	1=No involvement in	
_	college activities	Ouestion: If you have family responsibilities, how do they
	2=No interference	affect your college activities?
	3=Little interference	
	4=Much interference	
MOTH50a	1=*Primary school	
	2=Some secondary or	Mother education—assigned by type
	high school	
	3=Secondary or high	
	school diploma	
	4=Some college	
	5=Associate degree	
	6=Bachelor's degree	
	7=Masters degree or	
	higher	
	8=1 don't know	
FATH50b	1=*Primary school	
	2=Some secondary or	Father education—assigned by type
	high school	
	3=Secondary or high	
	school diploma	
	4=Some college	
	5=Associate degree	
	o=Bachelor's degree	
	/=Masters degree or	
	ender inglief	*Deference estacories used for dummy adad
		· Rejerence calegories used for aummy coded variables

ID	Variable	Description of Problem/Limitation
A19	IC8	Participant recorded two responses for this item (8) from the Involvement in classes
		scale: 1=strongly disagree and 3=agree.
		<i>Solution</i> : Entered a value representing the average of both responses
		(1.e., 2)
All	WORK43	Response to WORK43: did not work conflicts with response to WKPL44: worked off
A22	WKPL44	<i>campus.</i>
		WORKA3 and loaving WKPLA4 blank. Before analysis. WKPLA4 was sont to
		'missing'
A13	HRS45	These participants entered impossible values for <i>HRS45</i> (<i>Total no. of hours spent on</i>
A47	1110,70	campus each week. excluding time spent on a paid iob).
A53		Responses included the following:
B111		Not sure of the hours
B126		A lot
B153		Only hours I have class, if not I leave
C194		Not sure
C203		A lot of time
D251		Every day
F314		Every day because I'm a boarder
F317		A lot can't estimate
		None Solution: L of blank: in addition implausible values of 200 and 168 (brs) were
		removed from the data set
A10	HRS45	Where a range of hours was given, an average was calculated. For example,
A15	1110,70	participants A10, A15 and A22 indicated spending 10-12, 8-10 and 9-10 hours each
A22		week, respectively, on campus. Therefore, 11, 9 and 9.5 hours, respectively, were
		entered.
A28	BIRTH47	These participants entered impossible values for BIRTH47 (Year of birth), as
A403		follows:
B103		July
G356		Jamaica
		Kingston, Jamaica
		Hanover, Jamaica
A 1 7		Solution: Left blank
A15	FAM IE 49	Kesponses from participants A15 and A59 to FAM IE49 (Impact of family
A39		responsibilities on college activities): no interference contradicts responses to the
Δ24		indicated they had no family responsibilities
<u>14</u> 27		Solution: Entered assigned value for response to FAM CI 48 and left FAM IF49
		blank. For analysis, sent FAM IE49 to 'missing'
		Likewise, participants A24 and A29 indicated having no family responsibilities. vet
		selected response 3 for FAM IE49: they take a little time from my college activities
		Solution: Logically resolved as for the previous cases.

Problems and Limitations