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# The Utilization of a Computer Assisted Guidance System in Academic Advising

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THE UTILIZATION OF A COMPUTER ASSISTED GUIDANCE SYSTEM IN  
ACADEMIC ADVISING

by

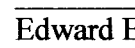
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## ABSTRACT

### THE UTILIZATION OF A COMPUTER ASSISTED GUIDANCE SYSTEM IN ACADEMIC ADVISING

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Old Dominion University, 2010  
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Computer assisted guidance systems may adapt well to various models of academic advising, and they have the ability to address the challenge of meeting the diverse advising needs of community college students without sacrificing the integrity of academic advising (Fowkes & McWhirter, 2007). The purpose of this qualitative case study was to assess current advisor and student use of a specific computer assisted guidance system and to recommend strategies to effect optimum utilization of current generation software. The objective was to create a model for using the computer assisted guidance system as an academic and career planning tool for community college students.

The researcher triangulated methods and sources of data collection to ensure the credibility of this study. Data were collected using three methods: interviews, focus groups, and a short survey. Interviews with six counselors who provide academic advising and six focus groups with students who had experienced the computer assisted guidance system were used to collect data. An anonymous survey was provided to the six counselor participants.

Findings from this study suggest counselors utilize the computer assisted guidance system in the provision of academic advising support to students in the classroom as a component of a first-year experience course. The counselors do not regularly use the computer assisted guidance system in their private offices in the

provision of academic advising support to students. Students utilize the computer assisted guidance system because it is a required course assignment.

The utilization of the computer assisted guidance system could be improved with the implementation of several strategies. Counselors and advisors must receive training on computer assisted guidance system intervention strategies. Counselors and advisors recommending the computer assisted guidance system to students should employ a developmental approach to academic advising when doing so. The computer assisted guidance system should be a required course assignment in a first-year experience course. A link to the computer assisted guidance system should be placed prominently on the front page of the college Web page. The computer assisted guidance system icon seen on college Web portals should include a descriptive statement about the system. A brochure should be created to market the computer assisted guidance system. The public school system should utilize the computer assisted guidance system.

## Acknowledgements

Many of my friends and loved ones have played vital roles in this endeavor and I can never thank them enough.

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## CHAPTER 1

### INTRODUCTION

The broad mission of the community college is to provide individuals with access to post-secondary education and to respond to the educational needs of adult learners (Ayers, 2002; Cohen & Brawer, 1996; Vaughan, 2000). Each community college achieves its mission in different ways, and the mission of most community colleges includes open access, a comprehensive curriculum, community based programming, teaching, and life long learning (Vaughan). Two years of post-secondary education at a community college are within reach of most everyone, due in part to open access and the comprehensive curriculum. Community colleges offer egalitarian entry and enroll approximately 45 percent of the nation's student population attending an institution of higher education (Goldrick-Rab, Harris, Mazzeo, & Kienzl, 2009; Mellow & Heelen, 2008).

The challenge of the broad community college mission is providing services to meet the diverse needs of every student. On average, community college students are older, likely to be enrolled part-time while working, and likely to be the first member of their family to attend college (Mellow & Heelen, 2008). Community college students possess varying academic abilities, and community college student populations tend to reflect the ethnic composition of the community in which the school is located (Cohen & Brawer, 1996). Cohen and Brawer suggest students attend community colleges for numerous reasons: to obtain job entry skills, to upgrade job skills, to fulfill a personal interest, to take classes that will transfer to senior institutions, or to better themselves financially.



The fundamental diversity of the community college means counselors and advisors must provide academic and career advising to the multitude of students with varying needs. The challenge facing academic practitioners is to provide advising services in meaningful ways to the diverse needs of the students served (Robinson, Meyer, Prince, McLean, & Low, 2000). Academic advising is an integral part of the mission of higher education (Gordon, Habley, & Associates, 2000), and advisors have a responsibility to provide diverse academic and career interventions in addition to traditional advising approaches (Niles & Garis, 1990). Comprehensive advising integrating diverse models and delivery methods benefits students and supports the mission of the community college (Robinson et al.).

The use of computer technology has become a basic component of academic and career advising (Fowkes & McWhirter, 2007). Computer assisted guidance systems are reported to be most effective when used in conjunction with activities such as group counseling, individual guidance, and career courses. When used independently computer assisted guidance systems also show some promise of providing effective results (Whiston, Sexton, & Lasoff, 1998). Computer assisted guidance systems may adapt well to various models of academic advising, and they have the ability to address the challenge of meeting the diverse advising needs of community college students without sacrificing the integrity of academic advising (Fowkes & McWhirter).

### The Community College is Flat

Institutions of higher education often measure and publicize enrollment figures by Full Time Equivalency (FTE). FTEs measure the equivalent number of full-time students attending an institution, but FTEs do not depict the actual number of students attending

the institution. The term headcount identifies the actual number of students attending an institution. Eighty percent of the recent growth in Virginia's institutions of higher education was in Virginia's community colleges, and a majority of this growth was in part-time enrollments (G. DuBois, personal communication, February 28, 2008). The combination of increased enrollment and large numbers of part-time students equates to increases in headcount and, subsequently, increases in the number of students seeking services such as academic advising. The challenge to provide counseling and advising services to meet the needs of every potential student is now even greater.

The value of learning to think, explore, and philosophize was highlighted by Friedman in 2006. Friedman refers to an individual with the requisite skills for job security as one who can think critically, communicate, and work as a productive team player. The same is true for the community college of the future. Community college leaders must think critically, communicate effectively, and work as productive team players to create collaborative efforts and meet the needs of the future student population. The creation of the Virginia Education Wizard, a computer assisted guidance system commonly known as the Wizard, is an example of Friedman's proposition. The Wizard was developed by forward thinking leaders who, in 2006, identified a need for a web-based career and educational planning tool for the diverse population of current and prospective community college students. Today, the Wizard enables users to create region-, college-, and user-specific information on the breadth of education and career options that stem from the offerings of state's community colleges (M.C. Herndon, personal communication, February 27, 2009). The Wizard provides an avenue to meet the varied needs of an increasing number of students enrolling in community colleges.

The Wizard is not intended to replace the advisor practitioner. Literature suggests systems such as the Wizard should be used in a consulting role, integrating a variety of resources in any one academic or career assessment, and in conjunction with competent advising or counseling (Eveland, Conyne, & Blakney, 1998; McMinn, Ellens, & Soref, 1999; Sampson, 2000b; Sampson et al, 1992). Competent, collaborative, student-focused advising is recommended to supplement computer assisted guidance systems for meaningful computer assisted counseling (Eveland et al.; Sampson et al.).

### Background

Academic advising is a process during which the advisor serves as teacher and guide, enhancing the student's self-awareness and fulfillment. It is a process of teaching students how to become responsible consumers of their own educations. Academic advising is an interactive process in which the advisor helps the student set and achieve academic goals, acquire relevant information, and make responsible decisions consistent with interests, goals, abilities, and degree requirements (Gordon et al., 2000; Noel, Levitz, Saluri, & Associates, 1985).

Computer assisted guidance systems are interactive software programs designed to provide self-assessment and career exploration information (Brown, 2003). Such systems allow users to efficiently narrow down an unmanageable number of academic and career options, gather and compare information about options, and identify suitable choices (Gati & Asher, 2001). The past decade has seen a large increase in the number of web-based computer assisted career guidance systems (Bobek et al., 2005), further increasing student accessibility to resources. Computer assisted guidance systems have the potential to enhance or detract from academic and career advising (Sampson, Purgar,

& Shy, 2003). Practitioner consultation, whether prescriptive or developmental, can enhance academic and career advising (Eveland et al., 1998).

Literature suggests computer assisted guidance systems should be used in a consulting role, and that such systems be used in conjunction with competent advising or counseling (Eveland et al., 1998; McMinn et al., 1999; Sampson, 2000b; Sampson et al., 1992). In fact, literature recommends that all computer assisted guidance systems should address the need for supplemental counselor consultation (Prince, Chartrand, & Silver, 2000).

The challenge for academic advisors and counselors incorporating computer assisted guidance systems may be to connect the technological options with personal interactions in order to meet the diverse needs of college students. The composition of the community college student body is unique compared to other institutions of higher education (Bryant, 2001). Community college leaders striving to serve the diverse community college student population must remain cognizant of student needs when developing programs and services. Integrating computer assisted guidance systems into academic advising is one way community colleges can meet the diverse needs of the students it serves.

Computer assisted guidance systems may reduce career decision-making difficulties and improve career decision-making self-efficacy (Fukuyama, Probert, Neimeyer, Nevill, & Metzler, 1988; Gati, Saka, & Krausz, 2001; Pinder & Fitzgerald, 1984). While technological systems are reported to be most effective when used in conjunction with activities such as group counseling, individual guidance, and career courses, computer assisted guidance systems alone show some promise of providing

effective results. In fact, computer assisted guidance systems were found to be second only to individual counseling in terms of effectiveness (Whiston et al., 1998). There is no guarantee an unaided student will correctly interpret the results gleaned from a computer assisted guidance system program, though current literature fails to demonstrate the prescriptive model of academic advising is inappropriate for use with a computer assisted guidance system in academic advising.

### Statement of the Problem

Existing research regarding computer assisted guidance systems has focused primarily on user satisfaction and effectiveness. There is little research on advisor intervention strategies and how such systems are used in academic advising (Bloch, 2006; Fowkes & McWhirter, 2007; Hinkelman & Luzzo, 1977; Sampson & Lumsden, 2000; Sampson, Peterson, & Reardon, 1989). In 2009, a statewide pilot was launched to explore the utility of the Wizard as a student information portal designed to provide individually tailored information to community college students. The Wizard is available in all community colleges in the state. However, there is no research compelling community college counselors and advisors to integrate the Wizard into academic advising.

### Virginia Education Wizard

Computer assisted advisement once relied solely on software. Today, computer assisted career guidance systems include not only software packages but also free web-based services and open source software. In 2006, the need for a web-based career and educational planning tool for current and prospective community college students was identified. The result was the Virginia Education Wizard, more commonly referred to as

the Wizard. The Wizard enables users to create region-, college-, and user-specific information describing the breadth of education and career options that stem from the offerings of the state's community colleges (M.C. Herndon, personal communication, February 27, 2009).

The Wizard expands access to the state's institutions of higher education and employment. It enhances the level and efficiency of student support services offered by the state's community colleges by consolidating existing products in a seamless one-stop, web-based portal. The intended outcomes of the Wizard include applying for admission to a community college, selecting a career, determining an appropriate major at a community college, estimating and comparing the cost of attending institutions of higher education in the state, finding and applying for financial aid, and identifying transfer pathways from a community college to a four year institution (Virginia Education Wizard, 2009).

The comprehensive nature of the Wizard brings together the various information students use to select careers and determine majors based on personal interests, and it links occupational information with specific information on related programs of study at the state's community colleges. The Wizard then provides students a map of required curricula to prepare them for their desired career choice. The Wizard also connects students to a comprehensive database of financial aid awards and scholarships by providing individualized information on financial resources based on each user's demographic information, career interests, educational interests, intention to transfer to a baccalaureate degree program, and financial need (Virginia Education Wizard, 2009).

### *Validation of the Virginia Education Wizard*

To validate the usability and content of the Wizard, access to a beta version of the site was provided to students enrolled in a community college and a sample of students in grades 7-12. Students were then asked to complete a survey on their experiences. The survey was developed to validate the intended outcomes of the Wizard in assisting users in applying to a community college, selecting a career, determining a major, estimating costs of attending college, finding student aid, and identifying transfer pathways from the community college to the four year institution.

A statewide pilot to explore the utility of the Wizard was then launched. Instructors teaching a first-year experience course at 19 community colleges agreed to incorporate the use of the Wizard into their courses. The Department of Education also identified two public school divisions willing to participate in student pilot testing and surveying. The survey was prominently linked to the Wizard Web site. During the testing window there were 3,107 unique visitors to the Wizard Web site, 4,496 visits to the Wizard Web site, and 83,469 pages viewed (Grush & Villano, 2009).

The data collected from college and secondary students supported the Wizard being helpful in performing its stated goals. It was reported that participants found the Wizard's tools easy to use, participants were satisfied with the Wizard's tools and content, and participants were satisfied with the Wizard's appearance and ease of navigation. Helpfulness, ease of use, and satisfaction with the Wizard were frequently rated highly by participants (M.C. Herndon, personal communication, February 27, 2009).

## Definition of Terms

The following key terms will be used during this research study:

*Academic advising* is an interaction between student and advisor to synthesize and contextualize a student's educational experiences within the frameworks of their aspirations.

*Academic advisor* is a faculty member or counselor who assists students with course selection and academic decision making.

*Community college* is an accredited institution of higher education that awards certificates and associate degrees.

*Computer assisted career guidance system* is an interactive automated computer program designed to provide students self-assessment and career exploration information.

*Counselor* is a faculty or staff member who interacts with students regarding a variety of issues including academic performance, behavior, health, attendance, conflict resolution, self-esteem, and social/emotional concerns. Counselors are sometimes referred to as academic advisors.

*Credit hour* is a unit of study at a college or university, usually represented by one hour of class per week per term.

*Degree* is an academic award given by a college to a student who has completed the required course of study.

*Developmental academic advising* is a student centered process which employs collaborative learning between student and advisor, and implements a student's educational and life plan connecting curricular and co-curricular facets of the educational experience.



*Full-time student* is a college student enrolled in more than eleven credit hours during a semester.

*Mid-sized college* is a college with an enrollment of between 3,000 and 7,500 students.

*Mission* is an affirmation of purpose guiding the actions of an institution.

*Part-time student* is a college student enrolled in fewer than twelve credit hours during a semester.

*Prescriptive academic advising* is an authoritative process of dispensing academic information regarding class schedules and campus policies to student, with primary responsibility residing with the advisor.

*Program of study* is an area of concentration, often called a college major, comprised of groupings of courses required for degree completion.

*Program-placed* means a student has declared a program of study for which he or she plans to pursue. This is similar to declaring a major.

*Web Portal* is a term for a single web page that brings together content from several other systems.

### Purpose of Study

Technology has enhanced the ability of counselors and advisors to disseminate academic and career information. However, the exploratory process of using computer assisted guidance systems has been ignored. How a student experiences the use of technology in academic and career exploration and what information is being explored remains unknown (Flum & Blustein, 2000). How advisors use computer assisted guidance systems also remains an unknown. The purpose of this study was to understand

current advisor and student use of a computer assisted guidance system in academic advising at a multi-campus, public, southeastern community college. The objective was to recommend strategies to effect optimum utilization of the computer assisted guidance system as an academic and career planning tool for community colleges.

### Research Questions

Three research questions guided this study:

1. *How do counselors at a multi-campus, public, southeastern community college utilize a computer assisted guidance system in the provision of academic advising support to students in a) a classroom and b) a private office?* This question delved into how community college counselors integrate a computer assisted guidance system into academic advising. Six counselors teaching a first-year experience course and using the automated system as a component of the course were interviewed. With this information, the researcher was able to identify ways in which the automated system is currently being incorporated into academic advising, furthering the understanding of how the automated system is currently utilized in a public, southeastern community college.

2. *How do students at a multi-campus, public, southeastern community college use a computer assisted guidance system?* This question investigated how students are using a computer assisted guidance system, what information is being explored, and whether information is explored in conjunction with activities such as group counseling or individual guidance. Six focus groups were conducted, involving students who had enrolled in a first-year experience course and who had experienced a computer assisted guidance system within the past two months. With this information the researcher was able to identify practices which best integrate the automated system with academic and

career advising. In addition, this information provides an understanding of how community college students are experiencing the automated system.

*3. How do different models of advising influence student use of a computer assisted guidance system in academic advising?* This question explored the methods of delivering and utilizing a computer assisted guidance system as a component of academic advising, and whether different models of academic advising influence student use of the automated system. Six counselors teaching a first-year experience course and using the automated system as a component of the course were interviewed. Additionally, selected students who used the automated system in a first-year experience course taught by a community college counselor participated in one of six focus group interviews. With this information the researcher was able to identify ways in which the automated system is currently being incorporated into academic advising, furthering the understanding of how the automated system is currently utilized in a public, southeastern community college.

#### Significance of the Study

Literature suggests high-quality academic advising promotes student learning and improved retention rates (Austin, Cherney, Crouner, & Hill, 1997; Backhus, 1989; Crockett, 2006; Gonzalez, 1997; Habley, 1982; Hester, 2008; King, 1993; Pace, 2001; Pascarella & Terenzini, 2005; Propp & Rhodes, 2006; Schlosser, Knox, Moskovitz, & Hill, 2003; Ting, 1997). Despite the link between academic advising and retention, students report being dissatisfied with the academic advising they receive. Several studies identify academic advising to be among the college experiences rated the lowest in student satisfaction (Allen & Smith, 2008; Austin, Korn, & Green, 1987; Keup & Stolzenberg, 2004).

The past decade has seen a large increase in the number of web-based computer assisted career guidance systems (Gore, Bobek, Robbins, & Shayne, 2006), further increasing student accessibility to resources. Literature suggests the number of participants using computers for planning and career exploration is increasing (Gore et al.). Existing research regarding computer assisted guidance systems has focused on user satisfaction, and findings suggest users are satisfied with their experiences (Fowkes & McWhirter, 2007). However, there is little research on advisor intervention strategies and how computer assisted advising systems are used in academic advising (Bloch, 2006; Fowkes & McWhirter; Sampson & Lumsden, 2000). Bobek et al. (2005) suggest continued research is necessary to compare the use of computer assisted guidance systems with and without the use of structured advising.

#### Relationship to Community College Leadership

A principal component in retaining students is the congruence between student needs and the various aspects of the campus environment. Research demonstrates students whose needs are not met by the institution often respond by leaving the institution (Patti, Tarpley, Goree, & Tice, 1993). Beal and Noel published in 1980 a report proclaiming academic advising is one of three major areas supporting student satisfaction and retention. Since this report, most colleges have established structured advising programs which incorporate some form of communication between advisor and advisee (Raushi, 1993). The advising experience provides students the skills, abilities and strategies necessary to be successful in college (Nutt, 2004).

Understanding and supporting the mission of the community college is a basic expectation of all community college leaders (Baker & Upshaw, 1995). Clearly

articulating the importance of the mission as a shared mission, and conveying its philosophy and functions can empower followers to reach institutional goals tied to the mission (Northouse, 2007). The mission of the community college is supported by services such as counseling and academic advising (Gordon et al., 2000). Academic advising and the comprehensive curriculum should complement one another to best meet the needs of the student. Crookston (1972) believed that higher education provides students an opportunity to achieve self-fulfilling lives. He argued that teaching should not be confined to the classroom and includes any experience which contributes to a student's growth. The process of academic advising is a form of teaching (Crookston) which supplements student learning and contributes significantly to student growth and development (King, 2005).

#### Overview of Methodology

A case study design allowed the researcher to systematically study the phenomenon of a computer assisted guidance system as a component of academic advising (Merriam, 1988). This qualitative case study explored the use of a computer assisted guidance system in academic advising to create a model for using a computer assisted guidance system as an academic and career planning tool for community colleges. Because the intent of the research was one of understanding and interpretation, the researcher selected a case study approach to understand advisor and student use of a computer assisted guidance system and to document subsequent outcomes of its use. The case study design allowed the researcher to get as close as possible to participants using a computer assisted guidance system, enabling him to collect descriptive data and provide heuristic meanings and inductive generalizations and concepts (Merriam). The data

allowed the researcher to describe the pragmatic use of a computer assisted guidance system across different models of academic advising from advisor and student perspectives, describing advisor and student experiences with a computer assisted guidance system relative to academic advising.

The researcher triangulated methods and sources of data collection to ensure the credibility of this study. Data were collected using three methods: interviews, focus groups, and a short survey. Interviews with six counselors who provide academic advising and six focus groups with students who had experienced a computer assisted guidance system were used to collect data. An anonymous survey was provided to the six counselor participants.

Standardized, open-ended interviews provided data the researcher could not observe, as well as a more detailed understanding of the perspective participants have of a computer assisted guidance system. Standardized, open-ended interviews reduced interviewer bias and allowed for better organization and analysis of the data. Focus group interviews identified specific issues raised by participants, thus allowing these issues to solicit reactions and dialogues not available in an interview or observation (Fitzpatrick, Sanders, & Worthen, 2004). Focus group questions were designed as discussion topics to provide a broad frame for dialogue (Kumar, 2005). The anonymous survey enhanced the reliability of counselor interviews.

### *Interviews*

The researcher purposefully selected heterogeneous interview participants from the college counseling staff who were considered to be gregarious and comfortable expressing ideas (Creswell, 2007; Fitzpatrick et al., 2004). Each participant was

contacted via email and invited to voluntarily participate (Appendix A). Each participant was asked to sign a consent form (Appendix B). The interviews were facilitated by the researcher. The standardized, open-ended interviews followed an interview protocol, and participants were asked the same questions (Appendix C). The use of standardized questions allowed the researcher to compare responses more efficiently and comprehensively, and reduced interviewer bias (Patton, 2002).

### *Focus Groups*

Six focus groups were conducted, involving students who had enrolled in a first-year experience course and who had experienced a computer assisted guidance system within the past two months. The researcher invited via email students to voluntarily participate (Appendix D). Each participant was asked to sign a consent form (Appendix E). The researcher moderated the focus groups and followed a prescribed protocol (Appendix F).

### *Survey*

The presumed lack of reliability is sometimes cited as a criticism of qualitative research (Kirk & Miller, 1986). To enhance the reliability of counselor interviews, the researcher provided the six interview participants with a survey (Appendix G) to collect anonymous data regarding the utilization of a computer assisted guidance system from the perspective of diverse advising practices.

### Data Analysis

Merriam (1988) points out it is often difficult for the qualitative researcher to know whom to interview, what to ask, or where to look without analyzing data as they are collected. Recursive dynamic data collection and analysis allowed the researcher to

refine and verify intuitive guesses and working hypotheses. Data collection and analysis occurred simultaneously throughout the emergent qualitative study. Ongoing analyses provided the researcher with focused manageable data to process (Merriam).

Data were collected using three methods: interviews, focus groups, and a short survey. Each data collection method was analyzed individually by coding and exploring for the emergence of themes. Interview transcripts were compared to data collected in the surveys to enhance the reliability of counselor interviews. Interview and focus group transcripts were interpreted by the researcher to identify fundamental topics within each individual case. Thematic categories were created based on identified fundamental topics. Data were re-read by the researcher to identify statements which fell under each category. To increase the content validity and reliability of collected data, the researcher used an independent third party auditor to evaluate the transcribed data.

Data were categorized based on thematic similarities. Thematic similarities identified in interview and focus group transcripts were reviewed by the researcher. Upon a thorough evaluation of individual methods of data collection, the researcher developed categories into larger themes across each method of data collection. Results were used to make recommendations to effect optimum utilization of a computer assisted guidance system as a component of academic and career advising.

#### Limitations and Delimitations

Qualitative research is useful only when its limitations are recognized. This study had several limitations of which the researcher was aware.

When planned carefully, the focus group serves as a comfortable environment in which participants share freely ideas and perceptions (Krueger & Casey, 2009). Findings



from focus groups are difficult to measure because they are concerned with understanding participant attitudes rather than measuring them. In addition, findings are dependent upon the interaction between the facilitator and the participants, so an unskilled facilitator may assemble inaccurate conclusions (Patton, 2002). Focus group interviewing is effective when the moderator is nonjudgmental and open to what people have to say. The focus groups were conducted by the researcher using a moderator guide developed by Calliotte and Pickering (Appendix H). One additional college staff member was present to take written notes during the focus group sessions.

Challenges with interviews tend to be relative to the mechanics of conducting the interviews. The quality of the data collected is directly dependent upon the quality of the interaction (Kumar, 2005). Standardized interview questions can restrict the opportunity for unanticipated discoveries (Creswell, 2007). In addition, the researcher must be cognizant of the power distribution between interviewer and interviewee, ensuring a warm and caring two-way dialogue. Because the counselor participants and researcher are professionally connected, the researcher was particularly sensitive to potential ethical dilemmas. A detailed interview protocol clearly identified the purpose of the study as assessing a computer assisted guidance system and its effects on students.

#### Setting

This study took place at a multi-campus, public, southeastern community college. The college offers college transfer programs and 52 Professional & Technical programs. The college is a multi-campus institution with an enrollment of over 5,000 FTE and a headcount of approximately 10,000 students. Individual campus enrollments are almost equal, with each campus serving approximately half of the student enrollment.

Approximately 70% of the student body is enrolled part-time with approximately 30% enrolled full-time. Approximately 62% of the student body is female and approximately 38% of the student body is male. Approximately 50% of all students enrolled in a program of study have selected a college transfer program as their intended program of study. Approximately 50% of all students enrolled in a program of study have selected a professional or technical program as their program of study.

### Conclusion

The broad mission of the community college is to provide individuals with access to post-secondary education (Ayers, 2002; Cohen & Brawer, 1996; Vaughan, 2000). The challenge of the broad community college mission is providing services to meet the diverse needs of every student. The fundamental diversity of the community college means counselors and advisors must consistently cope with the challenge of providing academic and career advising to the multitude of students with varying needs. Comprehensive advising integrating diverse models and delivery methods benefits the student and supports the mission of the community college.

The use of computer technology has become an integral component of academic and career advising (Fowkes & McWhirter, 2007). Whether a prescriptive or developmental model of academic advising is utilized, computer assisted guidance systems such as the Wizard have the ability to address the challenge of meeting the diverse advising needs of community college students without sacrificing the integrity of academic advising. The purpose of this qualitative case study was threefold: (a) to understand current advisor and student use of a computer assisted guidance system in academic advising at a multi-campus, public, southeastern community college; (b) to

recommend strategies to effect optimum utilization of a computer assisted guidance system as an academic and career planning tool for community colleges; and (c) to recommend approaches counselors and academic advisors in community colleges can use to integrate a computer assisted guidance system into academic advising.

## CHAPTER 2

### LITERATURE REVIEW

#### The Use of Computer Assisted Guidance Systems in Academic Advising

Academic advising is an integral part of the mission of higher education (Gordon et al., 2000). Advising programs provide opportunities for advisors and advisees to address the many challenges college students face. Such opportunities enhance the likelihood that students will have successful educational experiences as they plan and prepare for the future (Bland, 2004). Academic advising is arguably the most universal activity on the community college campus, and most colleges have a structured advising program (Raushi, 1993) which incorporates some form of communication between advisor and advisee. In some cases, academic advising is the only structured campus support system that ensures some form of faculty/student interaction (King, 1993).

Two prevailing models of academic advising have emerged: prescriptive advising and developmental advising. The two approaches incorporate similar tasks (Mottarella, Fritzsche, & Cerabino, 2004). However, a prescriptive model assumes a more dogmatic approach to advising whereas the developmental model emphasizes personal growth (Crookston, 1972). Task oriented activities such as choosing courses, discussing academic requirements, and explaining school policy are associated with the prescriptive approach (Gallagher & Allen, 2000). Advising activities which explore student values, career goals and interpersonal skills are associated with the developmental approach (Mottarella et al.).

Literature suggests high-quality academic advising promotes student learning and improved retention rates (Austin et al., 1997; Backhus, 1989; Crockett, 2006; Gonzalez,

1997; Habley, 1982; Hester, 2008; King, 1993; Pace, 2001; Pascarella & Terenzini, 2005; Propp & Rhodes, 2006; Schlosser et al., 2003; Ting, 1997). Interaction between faculty and students outside class is a central factor of student retention (Glennon, Farran, & Vowell, 1996; Johnson & Johnson, 1995; Schmid & Abell, 2003). Faculty/student contacts such as academic and career advising and counseling are considered essential services for the community college student's success (Berman, Curry, Nelson, & Weiler, 1990; Smith, 2002; St. Clair, 1993; Tinto, 1987; Tinto, 1999). A fundamental way to engage students in advising is to design programs that acknowledge their individual needs (Frost, 1991; Smith & Allen, 2006).

In 1983 Friedlander suggested computer-assisted advisement as a solution to providing the functions of academic advising more effectively than traditional face-to-face advising. Computer-assisted advisement involves the use of software to store and match degree requirements with student academic records. Such software provides lists of course requirements for individual programs of study, required prerequisites, completed coursework toward degree completion, transfer credits and CLEP exams, and monitored student progress. Friedlander argued the use of computer-assisted advisement would save an institution time and money, and reduce faculty error.

Computer assisted guidance systems may reduce career decision-making difficulties and improve career decision-making self-efficacy (Fukuyama et al., 1988, Probert, Neimeyer, Nevill, & Metzler, 1988; Gati et al., 2001; Pinder & Fitzgerald, 1984). Such systems have the potential to enhance or detract from academic and career advising (Sampson et al., 2003). Literature suggests computer assisted career guidance systems are best used in a consulting role and are more effective when used in

conjunction with academic and career advising (Eveland et al., 1998; Fowkes & McWhirter, 2007; McMinn et al., 1999; Sampson, 2000b; Sampson et al., 1992; Whiston, Brechsisen, & Stephens, 2003). Practitioner consultation, whether prescriptive or developmental, can enhance academic and career advising. Certain computer assisted activities include unrestricted measures that do not require the assistance of a counselor practitioner for scoring and interpretation (Sampson et al., 2003), while other restricted practitioner-mediated assessments are designed for use within the context of counseling and advising (Gore & Leuwerke, 2000; Sampson, Lumsden, & Carr, 2001).

The use of computer applications to interpret tests has occurred for more than 40 years (Gore & Leuwerke, 2000; Sampson, 2000a), and the use of computer technology has more recently become an integral component of academic and career advising (Fowkes & McWhirter, 2007). Computer assisted advisement once relied solely on software. Today, computer assisted career guidance systems include not only software packages but also free web-based services and open source software. In 2006, the VCCS Chancellor identified a need for a web-based career and educational planning tool for current and prospective college students. The tool, known today as the Wizard, enables users to create region-, college-, and user-specific information on the breadth of education and career options that stem from the offerings of the state's Community Colleges (M.C. Herndon, personal communication, February 27, 2009).

Advisor practitioners have a responsibility to provide diverse academic and career interventions such as computer assisted career guidance systems in addition to traditional advising approaches (Niles & Garis, 1990; Robinson et al., 2000). Niles & Garris believe the lack of research examining intervention strategies leads to practitioners assigning

advising strategies based on anecdotal evidence and individual biases. Current literature does not include specific advisor intervention strategies or the optimum uses for computer assisted systems in academic advising. How practitioners utilize computer assisted guidance systems remains unspecified. The purpose of this case study was to understand the use of a computer assisted guidance system, the Wizard, in academic advising. The objective was to recommend strategies to effect optimum utilization of the Wizard as an academic and career planning tool for community colleges.

#### Community College Mission

Academic advising impacts both the student and the academic community at large (Raushi, 1993). Quality advising allows the student to develop decision making skills based on personal values, interests, and abilities. The product of this development is greater student satisfaction, persistence, and retention (King, 1993). Academic advising at community colleges can be a challenging task. The diversity of the student body, the brief time students actually spend on campus, and the preparedness of academic advisors make the role of community college advisor a challenging one (Sanford-Harris, 1993). However, academic advising remains an integral part of the mission of higher education (Gordon et al., 2000).

The broad mission of the community college is to identify and respond to the educational needs of adult learners within a particular service area (Ayers, 2002; Cohen & Brawer, 1996; Vaughan, 2000). The core of the community college mission is to provide individuals with access to post-secondary education. Each community college achieves its mission in different ways, and the mission of most community colleges includes open access, a comprehensive curriculum, and teaching (Vaughan). The mission

of the community college cannot be achieved without practical support services such as academic and career advising.

### *Open Access*

Open access is maintained by several variables. Low cost tuition and diverse program choices allow the community college to truly serve as the community's college. Open access is about opportunity, and counseling and academic advising provide opportunities for student success in the form of student support services. Comprehensive support services such as academic and career advising can provide students the opportunity to be educated to their fullest potential (Vaughan, 2000).

### *Comprehensive Curriculum*

The community college curricular offerings are comprehensive. Students have the choice of college transfer, professional and technical studies, career certificates, developmental studies, and non-credit programming. The notion of open access is contingent upon the comprehensive curriculum, and these various curricular functions have been ubiquitous since the inception of the community college (Cohen & Brawer, 1996). Without curricular options from which students may choose, there is no open access (Vaughan, 2000). Accessible comprehensive curricula provide students the access to high demand jobs as well as further education through college transfer (Goldrick-Rab et al., 2009). Academic and career advising can help students navigate the wide-ranging curricular options and career choices (Smith & Allen, 2006).

### *Teaching*

The community college is committed to learning and teaching. There is no emphasis on faculty publications or nationally ranked sports teams. What is important is



teaching the diverse student population in such a way that all students, regardless of background, have the opportunity to learn and educate themselves to their fullest potential (Vaughan, 2000). Crookston (1972) argued that teaching should not be confined to the classroom and includes any experience which contributes to a student's growth. The process of academic advising is a form of teaching (Crookston) which supplements student learning and contributes significantly to student growth and development (King, 2005).

### Community College Diversity

Because community colleges are conveniently located, provide open access, and are relatively inexpensive, community college student populations tend to reflect the social and ethnic composition of the community in which the school is located (Cohen & Brower, 2003). Mellow and Heelen (2008) report nearly half of all undergraduate students nationwide attend a community college, the average community college student is over the age of 24, and the average community college student works at least 20 hours per week. In addition, since 1986 there have been double digit college enrollment increases in American Indian, Asian American, African American, and Hispanic populations. Nearly half of these populations attend two-year institutions (Upcraft & Stephens, 2000). These students are likely to work and have family obligations while attending college part-time (Upcraft & Stephens; Wasley, 2007).

The composition of the community college student body is unique when compared to other institutions of higher education (Schmid & Abell, 2003). Community colleges tend to enroll more students of varying academic abilities than four-year institutions. On average, community college students are older, likely to be enrolled part-

time while working, likely to be the first member of their family to attend college, and have lower income levels than students attending four-year colleges (Mellow & Heelen, 2008).

### *Diverse Student Needs*

Community college students face a variety of barriers to degree completion. Coley (2000) notes seven demographic factors that put students at risk of not attaining a degree: delayed entry, part-time enrollment, full-time work, financial independence, dependents, single parenthood, and college attendance without a high school diploma. Coley states at least three fourths of community college students are characterized by at least one of these demographic characteristics, and students entering a community college are more likely than those entering four-year institutions to have several of these characteristics.

Applying and using variables that attribute to effective student retention are critical during the students' first year of enrollment. The greatest risk for voluntary attrition is between the freshman and sophomore year (Pascarella & Terenzini, 2005). This period of time is viewed as the most critical due to its direct influence on subsequent attrition rates (Levitz, Noel, & Richter, 1999). According to Levitz et al., the first year is critical since attrition rates are typically halved each succeeding year after the first year.

The challenge of the broad community college mission is to provide services to meet the diverse needs of every potential student. This challenge is even greater when one considers the barriers to degree completion in addition to the diversity of the community college student body. The community college, because of open access and its comprehensive curriculum, must strive to meet the diverse needs of the population it

serves. The heterogeneous population found on the community college campus makes it difficult to determine specific student needs (St. Clair, 1993).

### Student Persistence

Research demonstrates that students whose needs are not met by the institution often respond by dropping out (Patti et al., 1993). Broad diverse support services enable community colleges to meet the varied needs of their students, and can encourage student persistence and increase student success (Bailey & Alfonso, 2005; O’Gara, Karp, & Hughes, 2009; St. Clair, 1993). Advisor practitioners have a responsibility to provide diverse academic and career interventions (Niles & Garis, 1990; Robinson et al., 2000), and academic and career advising can meet students’ needs and serve as a catalyst to encourage retention and student success (St. Clair).

High-quality academic advising promotes student learning and improved retention rates (Austin et al., 1997; Backhus, 1989; Crockett, 2006; Gonzalez, 1997; Habley, 1982; Hester, 2008; King, 1993; Pace, 2001; Pascarella & Terenzini, 2005; Propp & Rhodes, 2006; Schlosser et al., 2003; Ting, 1997), and contact between faculty and students outside class is a central factor impacting student retention (Glennon et al., 1996; Schmid & Abell, 2003). Contacts such as academic and career advising and counseling are considered essential services for the community college student’s success (Berman et al., 1990; Smith, 2002; St. Clair, 1993; Tinto, 1987; Tinto, 1999). One essential way to engage students in advising is to design programs that acknowledge their individual needs (Frost, 1991). A holistic approach to academic advising can guide practitioners in understanding individual student needs, implementing programs designed to fulfill those needs, and responding to the educational needs of the adult learner (St. Clair).

## What is Academic Advising?

The National Academic Advising Association (NACADA) (2005) defines advising as a “series of intentional interactions with a curriculum, a pedagogy, and a set of learning outcomes.” Academic advising is carried out by an array of individuals including faculty and staff. According to NACADA effective academic advising engages students beyond their own views while acknowledging their individual motivations.

Two prevailing models of academic advising have emerged: prescriptive advising and developmental advising. Both approaches to advising are similar in the types of tasks associated with advising (Mottarella et al., 2004). However, a prescriptive model assumes a more dogmatic slant to advising, and the developmental model looks to emphasize personal growth (Crookston, 1972). The developmental model has become the dominant model of academic advising (Lowenstein, 2005). Since the 1970s, changes in academic advising have consistently reflected a developmental approach (Coll & Zalaquett, 2008; Creamer & Creamer, 1994; Hemwell & Trachte, 1999; Smith & Allen, 2006; Weir, Dickman, & Fuqua, 2005). Academic advising has become more complex due to changes in student body demographics (Coll & Zalaquett), and advisors have embraced the developmental model of academic advising (Ryser & Alden, 2005; Winston, Miller, Ender, Grites, & Associates, 1984). Following is a more detailed description of each model.

### *Prescriptive Advising*

Prescriptive advising was introduced at Johns Hopkins in 1889 as a practice in which a faculty member advises a student on his course of study (Frost, 1991). The prescriptive model is based on authority (Crookston, 1972; Winston & Sandor, 1984)

with primary responsibility residing with the advisor (Smith & Allen, 2006). According to the prescriptive model, the primary responsibility of the advisor is to dispense information regarding class schedules and campus policies (Smith & Allen). Prescriptive advising occurs when an advisor diagnoses a student's problems and literally prescribes a solution (Winston & Sandor). Students are told what to do and what they need to know (Smith & Allen).

The prescriptive model is highly convenient for advisors. The prescriptive advisor expects students to seek advice (Herndon, Kaiser, & Creamer, 1996); the advisor then provides counsel. The responsibility for carrying out the advice resides with the student. The advisor expects the student to take responsibility for developing an academic plan (Gallagher & Allen, 2000). The prescriptive model is appealing for students as they are comforted by the security of knowing an authority figure has provided them with the answers (Crookston, 1972).

Prescriptive advising is similar to Paulo Freire's banking concept of education. Freire puts forth the idea that students are seen as empty containers into which knowledge can be deposited. The advisor is the depositor and information is simply deposited so that students can adapt to academic requirements. The advisor has the authority to develop and shape the advisee into what is conceptually a successful student (Freire, 1993).

#### *Developmental Advising*

Developmental advising is a student centered process (Smith & Allen, 2006). The purpose of developmental advising is student learning and development. It employs collaborative learning and didactic methods. It implements educational and life plans, connecting curricular and co-curricular facets of the educational experience (Frank, 2000;

Smith & Allen). It focuses on the whole person. Developmental advising provides conceptual knowledge for a student's educational and life planning. The developmental model is a process that goes beyond signing a registration form. It assumes a holistic approach to assisting students in making educational and life plans (Frank).

The developmental advising relationship is ongoing and requires frequent communication. The developmental advisor initiates the relationship and encourages future interaction (Bland, 2004). The developmental advisor is accessible (Frank, 2000) and empowers students to succeed (Bland). Developmental advising is goal-centered and student-ownership-based (Raushi, 1993). It is built on trust so the issue of who has control is less important (Crookston, 1972). Developmental advising empowers the student to explore options (Bland), and it recognizes the individuality of the student (Smith & Allen, 2006).

#### *Developmental References*

Most literature refers to academic advising in a developmental context. In fact, the NACADA (2005) Statement of Core Values consistently refers to developmental characteristics of academic advising. According to the Statement of Core Values, effective advising requires a holistic approach during which the advisor has a responsibility to strengthen the importance and unique nature of each individual. The statement expresses the need for advisor/advisee collegial relationships and respect for academic freedom. The pedagogy to which NACADA concepts of academic advising subscribe touts advising as a teaching and learning process. During the process, the relationship between advisor and student becomes fundamental and characterized by mutual trust and respect.

Friedlander (1983) identified three major functions of college academic advising: 1) to help students plan educational goals consistent with personal interests and abilities; 2) to identify students experiencing academic difficulties and connecting them to appropriate resources; and 3) to assist students as they progress toward completing the academic requirements of an academic program of study. Throughout these functions the advising experience provides students with the skills, abilities and strategies necessary to be successful in college. The process of academic advising is a form of teaching (Crookston, 1972) which supplements student learning and contributes significantly to student growth and development (King, 2005). Academic advising teaches students to learn to control their own educational experiences, and students learn to make appropriate decisions concerning their educational and life goals (Nutt, 2004).

Crookston (1972) believed that higher education provides students an opportunity to achieve self-fulfilling lives. He argued that teaching should not be confined to the classroom and includes any experience which contributes to a student's growth. Academic advising is a process during which the advisor serves as teacher and guide, enhancing the student's self-awareness and fulfillment. It is a process of teaching students how to become responsible consumers of their own education. Advising is a process of giving students guidance, support, and encouragement. Academic advising is an interactive process in which the advisor helps the student set and accomplish academic goals, acquire relevant information, and make responsible decisions consistent with interests, goals, abilities, and degree requirements (Gordon et al., 2000; Noel et al., 1985). Advising encompasses the formation and implementation of educational and life

plans. It permits the advisor/advisee relationship to become a conduit for change (Creamer, 2000).

### Student Preferences for Advising

Research related to academic advising has been conducted primarily at four-year colleges. Although literature suggests the developmental academic advising model promotes greater student satisfaction, persistence, and retention (King, 1993; Smith & Allen, 2006), studies demonstrate students attending four-year schools prefer a prescriptive model. In 1986, Guinn and Mitchell surveyed students at a four-year, state supported, Midwestern university. The results indicated students did not feel advisors should counsel about personal concerns, acquaint advisees with extra-curricular activities, or help advisees explore life goals. In 1992, Fielstein surveyed students at a four-year, state supported, southern Midwestern university and found students tended to be less satisfied with developmental advising activities than prescriptive activities. In 2002, Smith surveyed students at a four-year, state supported, Northeastern university and found students preferred a prescriptive model of academic advising. In 2004, Mottarella et al. surveyed students at a four-year, state supported, Southeastern university. While students reported greater satisfaction when the advising relationship was warm and supportive, they preferred a prescriptive model of advising rather than a developmental model.

There has been some research on academic advising at two-year schools. In 1996, Herndon et al., surveyed students at a two-year, state supported college located in an urban setting. The majority of the students in the survey indicated a preference for developmental advising. Black female students enrolled part-time were found to more



strongly prefer developmental advising than other groups. White males enrolled part-time expressed the least preference for developmental advising.

Current literature abounds with conflicting studies suggesting student preferred models of academic advising. Some researchers claim students prefer a developmental model of academic advising (Herndon et al., 1996); others suggest students prefer a prescriptive model of academic advising (Fielstein, 1992; Mottarella et al., 2004; Smith, 2002). Pascerella and Terenzini (2005) believe, however, that identifying one model or method of academic advising may not be appropriate for community college students. They found multiple dimensions covering an array of influences on student experiences, including academic and career advising, influence student persistence.

#### Developmental Advising and Retention

Retention is important from various perspectives; retention brings to the institution financial stability and program sustainability (Fike & Fike, 2008), the accountability and reform movements in higher education encourage institutions to improve student retention and graduation rates (Hosie, 1994; Spellings, 2006), and retention is arguably of most significance to students. Students desire a positive college experience, and they want to achieve academic success and complete their academic goals (Fike & Fike). Attrition can have long-term financial implications for individuals, as students who decide to leave college prior to earning an academic credential often earn much less during a lifetime of work (National Center for Educational Statistics, 1989). Through academic advisement, counselors have the opportunity to develop rapport with students, to explore academic goals, and to discuss personal issues which may otherwise impede student retention and success toward graduation (Kadar, 2001).

Comprehensive academic advising programs support student learning and improved retention rates (Austin et al., 1997; Backhus, 1989; Crockett, 2006; Gonzalez, 1997; Habley, 1982; Hester, 2008; King, 1993; Pace, 2001; Pascarella & Terenzini, 2005; Propp & Rhodes, 2006; Schlosser et al., 2003; Ting, 1997). The same characteristics used to describe the developmental model of academic advising are identified as variables associated with student retention and success. Continuous advisor/student interaction, exploration of individual student goals and options, student engagement, and advising students from a holistic perspective can positively affect student retention.

#### *Student/Faculty Interaction*

Johnson and Johnson (2005) point out that no other college experience is more strongly linked to student retention than student/faculty interaction. Other studies suggest students with positive relationships with their academic advisors report higher levels of academic success (Coll, 2009a; Coll & Zalaquett, 2008). The developmental advising relationship is one which is ongoing and requires frequent communication between student and advisor (Bland, 2004). Such interactions can influence changes in students' cognitive and psychosocial realms and increase their chances of persistence and degree completion (Berger & Milem, 2000; Braxton, Sullivan, & Johnson, 1997). Smith's (2007) mixed method study utilized focus groups and advisement logs in addition to quantitative surveys and found collaborative advising increases advisor/student communication and has the potential to increase retention rates. Chang (1999) surveyed 2,500 students attending a four-year university and found that student interactions with members of the institution influenced student retention. In addition, Chang determined that academic

advising with a focus on student development, positive self-concept, and self-esteem can enhance the college experience and increase the likelihood of academic success.

### *Recognition of Individualism*

Institutions of higher education can effectively promote student retention and success by empowering students to view ideas different from those they hold (Johnson & Johnson, 1995) and by recognizing the individuality of the student (Smith & Allen, 2006). Flowers, Osterlind, Pascarella, and Pierson (2001) emphasize the scholarly and practical importance of recognizing student differences. Their survey of four-year college students found a connection between gender- and race-related effects and student's academic competence. Coll, Oh, Joyce, and Coll (2009) point out effective academic advisors meet the needs of a multicultural student body by recognizing and accepting issues of ethnicity, gender, sexuality, and age. They go on to state advisors must be cognizant of the complex psychosocial issues students bring to campus, especially veterans returning from war in Iraq and Afghanistan.

### *Student Engagement*

Pascarella and Terenzini (2005) found students engaged both in and out of the classroom who are involved in academic, interpersonal, and extracurricular activities are more likely to persist. Kiker (2008) found academic advising can help students address life challenges they face outside the classroom. His longitudinal study supports the notion that enhanced academic advising plays a critical role in student persistence and retention. A holistic developmental approach connects curricular and co-curricular facets of the educational experience (Frank, 2000; Smith & Allen, 2006) and provides conceptual knowledge about the student's educational and life plans (Frank).

### *Holistic Perspective*

Coll (2009b) also provides evidence supporting a developmental model of academic advising to increase retention. He found a positive relationship between a holistic approach to academic advising and advising satisfaction. His results suggest the style of academic advising is more important in student retention than student characteristics.

### Student Satisfaction with Academic Advising

Personal contacts such as academic and career advising are considered essential services for the community college student's success (Berman et al., 1990; Smith, 2002; St. Clair, 1993; Tinto, 1987; Tinto, 1999). In 1980, Beal and Noel published a report proclaiming academic advising as one of three major areas supporting student satisfaction and retention. Since this report, most colleges have established structured advising programs that incorporate some form of communication between advisor and advisee (Raushi, 1993). Despite the link between academic advising and retention, students report being dissatisfied with the academic advising they receive. In fact, several studies identify academic advising to be among the college experiences rated the lowest in student satisfaction (Allen & Smith, 2008; Austin et al., 1987; Keup & Stolzenberg, 2004).

### Computer Assisted Guidance Systems

Computer assisted guidance systems have the potential to enhance academic support services, regardless of the student preferred advising model. Literature suggests computer assisted guidance systems may adapt well to either a prescriptive approach or developmental approach to academic and career advising; such systems can be used

independently or as supplementary to academic advising and planning (Fowkes & McWhirter, 2007). Computer assisted guidance systems are interactive software programs designed to provide self-assessment and career exploration information (Brown, 2003). The earliest computer assisted guidance systems were developed in the 1960s (Fowkes & McWhirter; Super, 1970). Sampson (1994) describes a computer assisted guidance system as a system of interrelated, computer-based components designed to facilitate assessment of occupational and educational alternatives.

Technological systems allow users to efficiently narrow down an unmanageable number of academic and career options, gather and compare information about options, and identify suitable career choices (Gati & Asher, 2001). Almost all computer assisted guidance systems provide personalized exploration and self-assessment, and offer occupational and education information as well as occupational alternatives (Hinkle, 1992). Such systems include unlimited materials and information that do not always require the assistance of a counselor practitioner for scoring and interpretation (Sampson et al., 2003).

Technology has had a significant impact on how career assessment and advising is made available to college students, and research points toward continued growth of computer assisted career assessment tools (Gore et al., 2006; Oliver & Whiston, 2000; Reile & Harris-Bowlsbey, 2000). The past decade has seen a large increase in the number of web-based computer assisted career guidance systems available for the advising process (Bobek et al., 2005). Comprehensive programs such as SIGI PLUS, DISCOVER, CHOICES, and Career Information System are present in most high schools, colleges and universities (Fowkes & McWhirter, 2007).

The ability of students to access academic and career information via computer technology has advantages and challenges. Advantages include the students' ability to access a wide array of career resources from anywhere and at any time, the luxury of immediate feedback, and the engaging capabilities of multimedia produced by computers. Disadvantages include the questionable reliability and validity of these assessments, the lack of confidentiality and internet security, and the fact that students can access career assessments on-line with no professional practitioner available to interpret results within the appropriate context (Oliver & Whiston, 2000).

#### *Computer Assisted Guidance System Research*

Existing research regarding computer assisted guidance systems has focused on user satisfaction and effectiveness. User satisfaction has been evaluated with frequency, and findings suggest users are satisfied with their experiences (Kapes, Borman, & Frazier, 1989a; Offer & Sampson, 1999). Sampson et al. (1992) found students using DISCOVER and SIGI had positive perceptions of the systems. Fowkes & McWhirter (2007) found that users of computer assisted guidance systems are satisfied with their experiences. Computer assisted career guidance systems have been shown to be effective in addressing components of the career development process to include self-assessment, college and career information, workforce trends, and decision making strategies (Fowkes & McWhirter; Gati et al., 2001; Gore et al., 2006; Helwig & Snodgres, 1990; Luzzo & Pierce, 1996; Maola & Kane, 1976; Super, 1983). Research has established that this technology has reduced career decision-making difficulties (Gati et al.), enhanced commitment to career decisions (Pinder & Fitzgerald, 1994), improved career decision-making self-efficacy (Fukuyama et al., 1988, Probert, Meimeyer, Nevill & Metzler,

1988), and is comparable to counselors for providing expert information (Sampson et al., 1992).

Literature consistently points to the importance of advisor/counselor involvement in student use of career assisted guidance systems (Reile & Harris-Bowlsbey, 2000; Sampson & Lumsden, 2000). Friedlander (1983) believes computer technology can supplement academic and career advising, allowing advisor practitioners more time with students in counseling and advising. Sampson et al. (1992) found technical systems to be comparable to counselors but add that the involvement of an advisor/counselor in the academic and career exploration process is important to attain student trust and confidence. Whiston et al. (2003) discovered that computer assisted guidance systems were more effective when combined with a counseling relationship.

#### *Application of use with Developmental and Prescriptive Models of Advising*

Johnson and Sampson (1985) recommend that counselors have practical experiences with computer assisted guidance systems. They argue that training in how to integrate technical systems into an advising relationship is essential. McCarthy, Moller, and Beard (2003) add the importance of providing students with training in the use of computer assisted guidance systems. Gore and Leuwinkle (2000) point out several authors who have challenged academic practitioners to make better use of technology in counseling and advising. Herr (1996), Lent (1996) and Watts (1996) encourage counselors and advisors to be innovative in the field of academic advising with regard to communication technologies and advising delivery formats. Because students have direct access and seemingly endless opportunities for academic and career information, they

argued that academic practitioners should develop new techniques for computer-assisted academic advising (Robinson et al., 2000).

Sampson et al. (1989) suggest the ultimate goal of integrating computer assisted guidance systems into academic and career advising is to help students become independent career problem solvers. The use of such technical systems may be similar to counselors and advisors providing professional guidance. However, the level of credibility and trustworthiness is often lacking when human interaction is absent. The human qualities often associated with credibility and trust become particularly important as students explore academic and career options. Optimal use of computer assisted guidance systems seems to take place when these systems are integrated as components of academic and career advising (Garis & Niles, 1990; Kapes, Borman, & Frazier, 1989b; Sampson & Stripling, 1979), whether a prescriptive or developmental approach to advising is exercised.

Literature suggests computer assisted guidance systems should be used in a consulting role, integrating a variety of resources in conjunction with competent advising or counseling (Eveland et al., 1998; McMinn et al., 1999; Nils & Garris, 1990; Sampson, 2000b; Sampson et al., 1992). Such technical systems are not intended to replace the advisor practitioner (Garb, 2000; Zachary & Pope, 1984). In fact, it is argued that Internet sites providing computer assisted guidance systems should always address the need for a counselor practitioner and provide information on securing one (Prince et al., 2000).

*Developmental Approach.* Most literature supports the developmental model of academic advising as an appropriate model to incorporate the use of a computer assisted guidance system as supplemental to academic advising. The developmental advising



relationship is ongoing and requires frequent communication, and the developmental advisor initiates the relationship and encourages future interaction (Bland, 2004). Developmental advising empowers the student to explore options and recognizes the individuality of the student (Bland; Smith & Allen, 2006). These developmental qualities are similar to the qualities current literature regarding computer assisted guidance systems identify as necessary for effective and competent counseling (Eveland et al., 1998; Sampson et al., 1992). Brown et al. (2003) suggest effective academic and career advising are functions of the extent to which individualized interpretations, advisor feedback, support building, and modeling are incorporated into academic and career exploration. Kirk (2000) suggests personal counseling and advising are fundamental in helping students maximize the benefits of computer assisted guidance systems. In fact, counselor/student face-to-face interaction has been shown to increase the effectiveness of computer assisted guidance systems (Kirk; Garis & Niles, 1990; Hinkle, 1992; Kivlighan, Johnston, Hogan, & Mauer, 1994).

*Prescriptive Approach.* Students have direct access to a plethora of technological data banks available via the Internet, either at home or at the college in which they are enrolled. They do not have to consult a counselor or advisor to access such sources, and users often access sources with little or no human intervention (Robinson et al., 2000). The primary objective of the prescriptive model is to dispense information (Smith & Allen, 2006), and the responsibility for carrying out dispensed advice resides with the student. There is no guarantee a student will interpret correctly the results gleaned from a computer assisted guidance system program, though current literature fails to

demonstrate the prescriptive model of academic advising is inappropriate for use with a computer assisted guidance system in academic advising.

While technological systems are reported to be most effective when used in conjunction with activities such as group counseling, individual guidance, and career courses, computer assisted guidance systems alone show some promise of providing effective results. In fact, computer assisted guidance systems were found to be second only to individual counseling in terms of effectiveness (Whiston et al., 1998).

### Significance of the Study

Community colleges have been characterized as open-admission institutions that educate a great majority, and students are drawn to these institutions due to affordable tuition prices, geographical locations, and remedial education programs (Benitez & DeAro, 2004; Vaughan, 2000). The challenge of the broad community college mission is to provide services to meet the diverse needs of every student. The heterogeneous population found on the community college campus makes it difficult to determine specific student needs (St. Clair, 1993). Advisor practitioners have a responsibility to provide diverse academic and career interventions such as computer assisted career guidance systems in addition to traditional advising approaches (Niles & Garis, 1990; Robinson et al., 2000). Niles & Garris believe the lack of research examining intervention strategies leads to practitioners assigning advising strategies based on anecdotal evidence and individual biases. Current literature does not include specific advisor intervention strategies or identify optimum uses for computer assisted systems in academic advising.

How practitioners utilize computer assisted guidance systems remains unspecified in the current literature. Existing research regarding computer assisted guidance systems

has focused primarily on user satisfaction and effectiveness. Findings suggest users are satisfied with their experiences (Fowkes & McWhirter, 2007). The Virginia Education Wizard pilot testing and survey was no different, reporting on participant satisfaction and finding students satisfied with the program (M.C. Herndon, personal communication, February 27, 2009). There is, however, little research on advisor intervention strategies and how systems such as the Wizard are used in academic advising (Bloch, 2006; Fowkes & McWhirter; Hinkelman & Luzzo, 1977; Sampson & Lumsden, 2000; Sampson et al., 1989).

Research on advisor intervention strategies and how computer assisted guidance systems are used in academic advising remains a limitation in the area of computer assisted guidance (Bloch, 2006; Flum & Blustein, 2000; Fowkes & McWhirter, 2007; Hinkelman & Luzzo, 1977; Niles & Garris, 1990; Sampson & Lumsden, 2000; Sampson et al., 1989). Niles and Garris identify the need for a more systematic strategy to meet the needs of users. Sampson, Reardon and Lenz (1991) ascertain advisors/counselors must be trained in the appropriate use of computer assisted guidance systems, and such systems should be infused into the goals of advising and instruction. Bobek et al. (2005) state that the increased and varied uses of computer assisted guidance systems warrant the development of training on the use of such systems, and research on the use and effectiveness of career assisted guidance systems with and without the use of structured support is needed.

#### Inquiry From Within Academic Advising

The accountability and reform movements in education have pressured counselor practitioners to demonstrate outcomes of counseling programs and academic support

services (Hosie, 1994). Whiston (1996) suggests that the main reason for counselors' failure to conduct research is that counselors lack expertise in research methods. Most counselors typically receive little training in formulating research questions, collecting relevant data, and selecting appropriate analyses (Astramovich & Coker, 2007). *Dateline 2009*, the strategic vision launched by community college leaders, provides increased pressure to improve student retention and graduation rates in community colleges. Through academic advisement, counselors have the opportunity to develop rapport with students, to explore academic goals, and to discuss personal issues which may otherwise impede student retention and success toward graduation (Kadar, 2001).

Computer assisted guidance systems have been evaluated extensively. However, most of the research has yielded descriptive statistics aimed at quantitatively summarizing data (Gati, 1994). Hinkle (1992) points out the need for scientific inquiry within the context of the academic advisor's everyday practice. He believes such inquiry is the only way to modify, refine, and improve advising services to students. Artificial laboratory settings and an over-reliance on quantitative statistical data have produced irrelevant results. Methodology that emphasizes the individual should be applied in more counseling and advising settings (Hinkle). Gelso (1985), Hinkle, and Howard (1985) recommend more qualitative methodologies in counseling research in order to increase meaningful results. The purpose of this qualitative case study was to understand the use of a computer assisted guidance system, the Wizard, in academic advising. The objective was to recommend strategies to effect optimum utilization of the Wizard as an academic and career planning tool for community colleges.

## CHAPTER 3

### METHODOLOGY

Basic research is knowledge for the sake of knowledge (Patton, 2002). This basic research permitted the researcher to understand and explain the use of a computer assisted guidance system. The purpose of this qualitative case study was threefold: (a) to understand current advisor and student use of a computer assisted guidance system in academic advising at a multi-campus, public, southeastern community college; (b) to recommend strategies to effect optimum utilization of a computer assisted guidance system as an academic and career planning tool for community colleges; and (c) to recommend approaches counselors and academic advisors in community colleges can use to integrate a computer assisted guidance system into academic advising. Because the intent of the research was one of understanding and interpretation, the researcher selected a case study approach to understand advisor and student use of a computer assisted guidance system, and to document subsequent outcomes of its use (Merriam, 1988).

Existing research regarding computer assisted guidance systems has focused on user satisfaction, and findings suggest users are satisfied with their experiences (Fowkes & McWhirter, 2007). Bobek et al. (2005) suggest continued research comparing the use of computer assisted guidance systems with and without the use of structured advising. However, the exploratory process of using computer assisted guidance systems has been largely ignored. How a student experiences the use of technology in academic and career exploration, what information is being explored and in what depth information is being investigated remains an unknown in the area of computer assisted guidance (Flum & Blustein, 2000).

How advisors use computer assisted guidance systems also remains an unknown. Niles and Garris (1990) suggest the lack of research examining computer assisted guidance systems intervention strategies leads to practitioners assigning advising strategies based on anecdotal evidence and individual biases. One of the purposes of this study was to understand current advisor and student use of a computer assisted guidance system in academic advising at multi-campus, public, southeastern community college. The objective was to recommend strategies to effect optimum utilization of the computer assisted guidance system as an academic and career planning tool based on qualitative inductive data.

Qualitative research takes an interpretive and naturalistic approach to its subject matter. The qualitative researcher studies things in their natural setting (Denzin & Lincoln, 1994). The qualitative approach chosen for this study utilized a single site case study to develop an enhanced understanding of a computer assisted guidance system as a component of academic advising. The realities of a computer assisted guidance system across different models of academic advising from the advisor's and student's perspectives is described, recounting advisor and student experiences with a computer assisted guidance system relative to academic advising (Creswell, 2007).

The researcher explored the perceptions of counselors and students in a single community college. The particular community college was selected because it allowed for the collection of detailed data using various techniques of data collection. Interviews with counselors who provide academic advising and focus groups with students experiencing a computer assisted guidance system provided the sources of data to answer

the following research questions. Specifically, this study addressed the following research questions:

1. How do counselors at a multi-campus, public, southeastern community college utilize a computer assisted guidance system in the provision of academic advising support to students in a) a classroom and b) a private office?
2. How do students at a multi-campus, public, southeastern community college use a computer assisted guidance system?
3. How do different models of advising influence student use of a computer assisted guidance system in academic advising?

#### Participants and Sample

Nonprobability sampling was appropriate for this qualitative study since statistical generalization is not a goal of this research (Merriam, 1998). Merriam contends nonprobability sampling methods are logical for the fieldworker attempting to discover what is occurring, the implications of such occurrences, and the relationships linking the occurrences. Purposeful sampling, the most common form of nonprobability sampling, was used to gather potential participants. A purposeful sample allowed the researcher to discover and understand the realities of a computer assisted guidance system in a natural setting. Empirical generalizations were not desired, and purposeful sampling allowed the researcher to gather pragmatic insights of a computer assisted guidance system from the perspective of counselors and students (Patton, 2002). Because the purpose of the research was to understand the “typical” use of the computer assisted guidance system in academic advising, the purposeful sample was appropriate (Fitzpatrick et al., 2004).

A heterogeneous sample of counselors who serve as academic advisors and teach a first-year experience course at the institution were selected for interviews. A heterogeneous sample was selected to provide in depth description of the facilitation of a computer assisted guidance system from the perspective of diverse advising practices. The sample size selected for the interviews was six ( $N=6$ ). By using a purposeful sample the researcher was able to select six diverse participants considered to be able to articulate their thoughts, gregarious, and comfortable expressing ideas (Creswell, 2007).

A purposeful sample was selected of students enrolled in specific sections of the first-year experience course taught by the same counselors participating in interviews, and who had experienced the computer assisted guidance system. This sample selection ensured a homogeneous sample of students (Fitzpatrick et al., 2004). A homogeneous sample was selected to describe in depth the use of a computer assisted guidance system from the perspective of college students.

#### Instrument

The researcher is considered the main instrument used to collect data in a qualitative study (Marques & McCall, 2005). The researcher in this study conducted interviews and focus groups to collect rich qualitative data. A survey to enhance the reliability of the interviews was also provided. The researcher reviewed numerous cases in this emergent study. The continuous search for thematic similarities and patterns helped ensure the validity of this study (Schaffir & Stebbins, 1991).

#### *Interviews*

Interviews are necessary to collect information regarding a past event which cannot be replicated. Effective qualitative interviews can provide a holistic description



about an event. Interviews can provide information not directly observed. Personal feelings, interpretations, and intentions can be uncovered through interviews (Merriam, 1988). The purpose of the advisor interviews in this study was to collect specific information regarding the utilization of a computer assisted guidance system from the perspective of diverse advising practices.

Six heterogeneous interview participants from the counseling staff considered gregarious and comfortable expressing ideas were selected (Fitzpatrick et al., 2004). Counselors at the college serve as professional academic advisors whose full-time work is dedicated to counseling and advising students, as well as teaching a first-year experience course. They have been hired specifically to assist and counsel students, and typically possess the skills, abilities and intentions to serve students.

Each participant was invited via email and asked to voluntarily participate in the study (Appendix A). Participants signed a consent form (Appendix B). The standardized open-ended interviews followed an interview protocol (Appendix C), and participants were asked the same questions. The use of standardized questions allowed the researcher to compare responses more efficiently and comprehensively, and reduced interviewer bias (Patton, 2002).

### *Focus Groups*

The researcher used focus groups to assure participant understanding of a computer assisted guidance system and the student academic advising program (Stake, 1975). The purpose of the focus groups was to identify specific issues raised by participants, and to allow these issues to solicit reactions and dialogues not available in an interview or by observations (Fitzpatrick et al., 2004). Focus groups provided the

opportunity to uncover how students are using a computer assisted guidance system, what information they are exploring, in what depth information is being explored, and whether information is being explored in conjunction with activities such as group counseling or individual guidance. Focus groups allowed for flexibility with regard to the topics covered, and the combined effect of the focus groups generated a wider array of information. Focus groups afforded the opportunity for specific issues raised by participants to generate reactions and dialogues not available in the interviews (Fitzpatrick et al.). The questions were designed to be discussion topics to provide a broad frame for dialogue (Kumar, 2005). The researcher used the focus groups to address specific issues regarding academic advising.

Focus group interviewing is effective when the moderator is nonjudgmental and open to what people have to say. A carefully planned focus group can serve as a comfortable environment in which participants share freely ideas and perceptions (Krueger & Casey, 2009). The focus groups in this study were conducted by the researcher following a prescribed protocol (Appendix F). One additional trained college staff member was present to take written notes during the focus group sessions. Six focus groups were conducted, involving students who had enrolled in a first-year experience course and who had experienced a computer assisted guidance system within the past two months. The researcher invited via email students to voluntarily participate (Appendix D) and each participant was asked to sign a consent form (Appendix E). The researcher moderated the focus groups and followed a prescribed protocol (Appendix F). Each focus group was conducted with approximately six to eight students.

### *Survey*

The presumed lack of reliability is sometimes cited as a criticism of qualitative research (Kirk & Miller, 1986). To enhance the reliability of counselor interviews, the researcher provided the six interview participants with a survey (Appendix G) to collect anonymous data regarding the utilization of a computer assisted guidance system from the perspective of diverse advising practices.

### Collection of Data

The researcher triangulated methods and sources of data collection to ensure the credibility of this study. Data were collected using three methods: interviews, focus groups, and a short survey.

Six counselors who serve as academic advisors and teach a first-year experience course at the institution were chosen. Each participant was asked to sign a consent form (Appendix B) and the researcher facilitated the interviews. Because the participants and researcher are professionally connected, the researcher was particularly sensitive to potential ethical dilemmas. A detailed interview protocol clearly identified the purpose of the study was as assessing a computer assisted guidance system and its effects on students. The interviews were held in the researcher's office. The interviews were digitally recorded and later transcribed. The researcher also took notes to collect non-verbal cues. The interview participants remained anonymous in the study.

To ensure the validity of the interviews, the researcher employed member checks to verify data collected during interviews. The researcher provided counselor participants with the transcribed interview notes. Participants had the opportunity to review and validate how accurately the interview notes represented responses. Participants

subsequently reviewed the researcher's transcribed notes and made corrections before the data were analyzed.

The standardized open-ended interview followed an interview protocol (Appendix C). A standardized open-ended approach was selected so that the same open-ended questions would be asked of all participants. This approach also ensured the questions were asked in the same order for all participants. The use of standardized questions allowed the researcher to compare participant responses more efficiently and comprehensively. The standardized interview also reduced interviewer bias (Patton, 2002). The first two interview questions were friendly questions intended to collect general academic information about the participant and create rapport. The majority of the interview questions focused on the delivery of academic advising services, and current advisor and student use of a computer assisted guidance system. Questions were developed to collect specific information on academic advising practices and the researcher looked for replies consistent with developmental and prescriptive characteristics.

The researcher provided the six interview participants with an anonymous survey. The survey allowed the researcher to collect anonymous data regarding the utilization of a computer assisted guidance system. Interview transcripts were compared to data collected in the surveys to enhance the reliability of counselor interviews.

The focus groups were held during various times of the day: morning, afternoon, and evening. The researcher invited via email students who had experienced the computer assisted guidance system to voluntarily participate (Appendix D). Each

participant was asked to sign a consent form (Appendix E). The researcher moderated the focus groups and followed a prescribed protocol (Appendix F).

The use of focus groups helped assure participant understanding of a computer assisted guidance system and the student academic advising program (Stake, 1975). The researcher used the focus groups to address specific issues regarding the computer assisted guidance system and academic advising. The focus groups were digitally recorded and later transcribed. To increase inter-observer reliability, one note taker took written notes during the focus group sessions. Notes and transcribed data were later compared to enhance reliability.

#### Data Analysis

The researcher triangulated methods and sources of data collection to ensure the credibility of this study. Data were collected using three methods: interviews, focus groups, and a short survey. Each data collection method was analyzed individually by coding and exploring for the emergence of themes. Interview transcripts were compared to data collected in the surveys to enhance the reliability of counselor interviews. Interview and focus group transcripts were interpreted by the researcher to identify fundamental topics within each individual case. Each method of data collection was then analyzed as an entire data set of one.

Thematic categories were created based on identified fundamental topics. Data were re-read by the researcher to identify statements which might fall under each category. Using an affinity diagram, data were categorized based on thematic similarities. The use of an affinity diagram allowed the researcher to sort through the large amount of

information to identify previously unseen connections. Thematic similarities identified in interview and focus group transcripts were reviewed by the researcher.

The researcher used an independent, third party auditor to evaluate the transcribed data. The extent to which an auditor reaches the same conclusions as the researcher suggests strengths and/or weakens in research. The auditor selected for this study was a graduate student studying higher education and who possessed a strong understanding of the purpose of the study. The auditor was provided transcribed data as soon as it became available. This allowed the researcher and auditor to review data simultaneously and to confer weekly throughout this emergent study.

The use of the auditor helped increase the content validity and reliability of collected data (Kolbe & Burnett, 1991). The use of an independent auditor to review interview and focus group transcripts also helped establish inter-rater reliability. Inter-rater reliability is the extent to which two or more persons agree. Inter-rater reliability can strengthen the validity and reliability of the findings, and is contingent upon the auditor's understanding of the topic (Marques & McCall, 2005).

#### Data Storage

Data collected were coded and analyzed for the emergence of themes. Electronic data, including interview notes, were stored on a password-secured personal computer to which the researcher had exclusive access. Electronic data were backed up on a CD and stored in a locked file cabinet in the researcher's office. Other items, such as written notes, were stored in a locked file cabinet in the researcher's office.

## Analysis of Research Questions

### Research Question One

How do counselors at a multi-campus, public, southeastern community college utilize a computer assisted guidance system in the provision of academic advising support to students in a) a classroom and b) a private office?

This question delved into how community college counselors integrate a computer assisted guidance system into academic advising. With this information, the researcher was able to identify ways in which the automated system is currently being incorporated into academic advising, furthering the understanding of how the automated system is currently utilized in a public, southeastern community college.

### Research Question Two

How do students at a multi-campus, public, southeastern community college use a computer assisted guidance system?

This question investigated how students are using a computer assisted guidance system, what information is being explored, and whether information is explored in conjunction with activities such as group counseling or individual guidance. With this information the researcher was able to identify practices which best integrate the automated system with academic and career advising. In addition, this information provides an understanding of how community college students are experiencing the automated system.

### Research Question Three

How do different models of advising influence student use of a computer assisted guidance system in academic advising?

This question explored the methods of delivering and utilizing a computer assisted guidance system as a component of academic advising, and whether different models of academic advising influence student use of the automated system. With this information the researcher was able to identify ways in which the automated system is currently being incorporated into academic advising, furthering the understanding of how the automated system is currently utilized in a public, southeastern community college.



## CHAPTER 4

### RESULTS

The purpose of this study was to understand current advisor and student use of a computer assisted guidance system, the Wizard, in academic advising at a multi-campus, public, southeastern community college. The objective was to recommend strategies to effect optimum utilization of the Wizard as an academic and career planning tool for community colleges. The following chapter presents the results of this study in the context of seven emergent themes.

#### Review of the Data Collection Methodology

The researcher triangulated methods and sources of data collection to ensure the credibility of this study. Data were collected using three methods: interviews, focus groups, and a short survey. All participants in this study were invited via email to voluntarily participate (Appendix A and Appendix D). Each participant signed a consent form prior to participation (Appendix B and Appendix E). Standardized open-ended questions were asked during interviews and focus groups to ensure the questions were asked of all participants (Appendix C and Appendix F). Focus group questions were designed to be discussion topics and afforded the opportunity for specific issues raised by participants to generate reactions and dialogues not scripted in the focus group protocol (Fitzpatrick et al., 2004). The interviews and focus groups were facilitated by the researcher. Additionally, the researcher provided the six interview participants with an anonymous survey to enhance the reliability of counselor interviews (Appendix G).

### Sample Profile

This study took place at a multi-campus, public, southeastern community college. Purposeful sampling was used to gather potential participants. The sample size selected for the counselor interviews was six ( $N=6$ ). Of the six counselor participants, four were female and two were male, one had an earned doctorate and five had earned masters degrees. The participant with the longest counseling tenure had worked as a professional counselor for over 20 years and the participant with the fewest years of professional experience had worked as a counselor for fewer than two years. Half of the counselor participants had fewer than 10 years of professional counseling/advising experience. The student sample was selected from individuals enrolled in specific sections of the first-year experience course taught by the same counselors participating in interviews, and who had experienced the computer assisted guidance system. One hundred and eighty students were invited to participate. Of the thirty-eight students who participated in a focus group, 21 were female and 17 were male. Almost all student participants were enrolled in their first or second semester of college, and most were planning to transfer to a four-year institution.

### Major Themes of the Study

The findings are organized below by seven major themes which emerged through an analysis of the data.

1. The counselors utilize the Wizard as a component of a first-year experience course, yet they rarely utilize the Wizard as a component of one-on-one academic advising in a private office.

2. The counselors all subscribe to a developmental model of academic advising, yet they do not make use of a developmental model of academic advising when utilizing the Wizard because they lack sufficient time to do so in their advising practices.
3. Students are utilizing the Wizard because it is a required class assignment.
4. Students who discussed their Wizard findings are more engaged in the Wizard.
5. Students desire more discussion prior to and following their experience with the Wizard.
6. Students believe the Wizard is a valuable tool and wish they had been exposed to it earlier.
7. Students and counselors believe the Wizard is not well promoted.

*The counselors utilize the Wizard as a component of a first-year experience course, yet they rarely utilize the Wizard as a component of one-on-one academic advising in a private office.*

*Use in a classroom*

All of the counselors participating in this study to some extent utilize the Wizard in the classroom on a regular basis as a component of the first-year experience course. All but one of the counselors participating in this study utilize the Wizard in the classroom as a required assignment in their class. One counselor who assigns the Wizard as a course requirement stated, "Every student has it assigned. The first day of class they get the syllabus and we review it. I point out the Wizard will be a part of this." Another counselor who assigns the Wizard as a course requirement added,

In class every student does it. Every student in my class takes it. I give them instructions so they know what to do. All students in class are required to use it. The class goes to a computer lab and they have instructions. They log on and they do it.

One counselor stated she used to use the Wizard in the classroom regularly but now only refers to it for college transfer information:

In class I used to use it. I would have them do the interest and values inventories and link those to careers and colleges. I don't really use it in class anymore because I had a couple of problems. Like, the VCU transfer agreement didn't pull up, and then some of the job information is really random. I still use it very informally. I show them on the computer on a projector screen and I tell them their assignment is to eventually print out the transfer information.

All of the counselor participants who use the Wizard in the classroom regularly provide students a sheet of instructions for completing the Wizard. Many students explained they would not have completed the Wizard if they had not been given instructions. Students reported that they may have viewed the various sections of the Wizard but they would not have ventured past the first assessment were it not for the instructions.

Though all students completing the Wizard in the classroom received the same specific instructions for using the Wizard, how the students navigated the directions varied. Most of the student participants followed the instructions carefully. One student said, "I just went by the directions on the sheet and it kind of led me to everything." Another student added, "I followed the instructions. I did it step by step." Some students followed the directions initially but then explored on their own. One student explained, "I was following the directions and I was intending to follow the directions, but I got sidetracked and I just did everything." A second student echoed this sentiment: "I started with instructions but then started to click on other things."

Regardless of following the directions provided by the instructor or exploring on their own, almost every student participant who completed the Wizard in class found his or her way to the section on college transfer. Students reported the section on college transfer revealed specific transfer information and guaranteed admissions agreements, and shed light on the actual cost of attending a community college versus attending a four-year college. One student stated,

It was surprising to me because there was some stuff I didn't know that I found out reading about VCU and ODU. I knew I needed a certain GPA for transfer but I was going to take only a few credits here and then transfer. Now I know I should go ahead and get my associates degree and transfer because it will be easier.

Other students realized the cost of attending a community college before transferring to a more expensive four-year college made financial sense. One student shared her surprise at how less expensive her community college was when compared to four-year schools: "I knew I was saving a little money but when I compared it I didn't know I was saving that much. It was shocking."

#### *Use in a private office*

Most of the counselors participating in this study are not regularly using the Wizard in their private office as a provision of academic advising support to students. Those who do use the Wizard in their private office use it only for career exploration, though the Wizard is not the first assessment counselors turn to when working with a student who is unsure about choosing a major. Most of the counselor participants mentioned other career assessments such as the Strong Interest Inventory, DISCOVER and Myers-Briggs Type Indicator before they mentioned the Wizard. One counselor stated, "One on one, I tend not to use it because I have other Web sites and resources I like."

When asked how often the Wizard is recommended to a student, most counselors stated they rarely reference the Wizard during a one-on-one advising session. One counselor confirmed her minimal use: “I use the Wizard from time to time in my office. It is not a frequent tool, though, because not every student needs it.” Another explained she uses the Wizard “maybe once every two weeks.” Other counselors confirmed their nominal use of the Wizard during one-on-one advising in a private office. One counselor summarized her anecdotal observations of the counselors within her department: “I don’t see it being used in the office much.”

The counselors using the Wizard in their private office use it for career exploration only. None of the counselor participants mentioned using the Wizard in their private office to help students explore colleges and universities, transfer pathways, or financial aid. In contrast, the counselor participants encourage students to search each of these areas when using the Wizard in the classroom. Almost every student participant who completed the Wizard as a requirement of the first-year experience course reviewed transfer information, guaranteed admissions agreements, and compared the cost of attending a community college versus attending a four-year college. This suggests students are interested in exploring college transfer, yet counselors are not utilizing the Wizard in this capacity in their private offices.

Results of the survey used to enhance the reliability of counselor interviews by collecting anonymous data from the same participants regarding the Wizard and academic advising were consistent with interview data. When asked on the survey how often the advisor recommends the Wizard to students, four participants indicated they do so with frequency, one does so sometimes, and one advisor never recommends the

Wizard. When asked on the survey how the Wizard is used with students, five counselors reported the Wizard is required as a course assignment. Four counselors reported using the Wizard as a component of one-on-one advising, but to what extent they use it in one-on-one advising was not asked.

*The counselors all subscribe to a developmental model of academic advising, yet they do not make use of a developmental model of academic advising when utilizing the Wizard because they lack sufficient time to do so in their advising practices.*

All of the counselor participants reported they believe in a developmental model of advising according to their description of academic advising. One participant described academic advising as an educational experience. Another counselor described a holistic approach to understanding individual student needs and responding to the educational needs of the individual:

Academic advising has to have a developmental aspect. It is more about the person than just what classes they want to take. You have to understand their goals. You have to know their career goals, what is going on in their life, the things that may impact their success.

One counselor explained her belief in a developmental approach to academic advising through a metaphor:

The student is the driver and the academic advisor is more like the GPS system. We are giving them multiple options or routes they can take to reach their goal. We don't dictate what they should do but help them identify options of reaching that goal. Is the student applying for financial aid? Well, the GPS lets you look at the route with tolls and with no tolls. Some students want to get through as quickly as possible. The GPS gives you options for the quickest route. It is also important to identify who else is in the car. What are the student's family responsibilities? So it is about identifying time, distance, money, and then also who is in the car with them.

When asked how they advise students dealing with difficult decisions each counselor described using developmental approaches to helping the student come to his/her own conclusion. The importance of assuming a holistic approach toward academic advising is evident in several responses. The response that most clearly articulates this sentiment is,

With academic advising I need to be able to share more than just academics. We (advisor and student) need to share what's going on in their family or at work or at school. An advisor has to have that ability to reach out and listen. If I don't know the student's situation then I am not going to be able to help them find the answer. If I don't ask pertinent questions to their situation I might miss something entirely.

Most of the participants clearly articulated their preference for a developmental approach toward academic advising while others scratched only the surface. One participant stressed the importance of being proactive and recognizing the individual needs of the student:

For me, academic advising is 'Let's find out what you want to do, let's find out how you can get there, let's work on a process to help you be successful.' It is a mentor/coach type of thing, taking a more proactive role in helping the student rather than being just a reactive problem solver. To me, it is proactive. It is not a one time thing. It is not just getting a student in the door. It is showing them the house. It is feeding them dinner.

The statement "It is feeding them dinner" reflects a more prescriptive approach than teaching them to cook. One possible explanation for this is counselors use a combination of developmental and prescriptive approaches to advising, which may be a result of the time constraints identified by counselors. The same counselor who earlier used the GPS metaphor also described prescriptive advising characteristics when she stated,

It is very important in academic advising to inform the student of the realities of deadlines and policies and procedures. For example, when a student is preparing to get in the nursing program, if they earn a (grade of) 'C' and that's not satisfactory for them because it will negatively impact their GPA, we'll have



discussions about how GPA effects their getting into the program, whether they should retake the class, what the policy states about retaking a class. We'll talk about financial aid policy and what financial aid says about retaking a class. Letting them know, 'here is the nursing policy, this is what nursing policy states.'

The survey discussed above triangulated the interview responses and supported the notion that counselors subscribe to a developmental model of academic advising. In response to counselors being asked how often the advisor discusses with the student vocational opportunities in conjunction with academic advising, all participants indicated they do so with frequency. In addition, counselors frequently discuss steps students can take in order to decide on a major. They also sometimes discuss with students non-academic interests and plans in conjunction with academic advising.

In sharp contrast to their belief in a developmental approach toward academic advising is the counselors failure to consistently make use of a developmental model, especially when utilizing the Wizard. It became evident through discussions that counselors believe in a developmental approach, yet lean toward a more prescriptive approach because of time. One participant explained academic advising is meeting the needs of the student and spending the time necessary to be able to answer questions, yet she later acknowledged the issue of time is an overwhelming challenge for counselors: "There are so many of them and so few of us." The component of academic advising ranked as most important by the counselor participants on the survey was discussing steps a student can take to decide on a major, yet the counselors struggle to provide sufficient time to do so. One counselor explained the challenge of balancing the demands for her time with meeting the needs of her students:

I like to provide a pretty good level of service but it is difficult, especially during heavy registration times. I've gotten better at balancing that. I can create rapport

quickly and not just make people feel like I am signing papers. But it is hard when you have 20 students waiting outside your door. I never want to be prescriptive.

The counselors struggle between wanting to implement a developmental model of advising yet succumbing to a more prescriptive method of delivery translates from daily academic advising into their utilization of the Wizard in the classroom. Asked how the Wizard is utilized in the classroom, three of the six counselors described a more prescriptive approach, two of the counselors described a deficient developmental approach which lacks sufficient counselor consultation, and one advisor reported that she does not regularly use the Wizard as a component of the first-year experience course.

The counselors reported wanting to spend more time in the classroom discussing the Wizard with their students. However, the notion of time as the reason for not doing so is evident. One counselor explained, "I don't have time for anything in class. If I had more time I might spend it on the Wizard." Another added, "I don't always have the time in class to do everything we could do with it." Other counselors agreed:

I think it goes back to that awful four letter word T-I-M-E. The inability to go much beyond 'here's the assignment, here is an explanation of how to do it, but now we have to move on the next assignment,' it is a huge frustration.

The Wizard could be much better utilized if there was more time to give to the students. If we are going to help them be successful with the Wizard then we have to have time to interact with them. If you are going to use a tool and then not give any support then it is not a good tool. Students who are learning need a push. They need someone asking 'What does this mean, does this help you?' We are not doing that.

Some of the counselors do manage to find some time in class for discussion. One counselor reported, "As time permits I talk about what the student should have completed. And on some occasions I look at what they turn in." Another explained,

We try and talk in class but there is a lot of material in class to cover. We talk for about half of one class. If I had more time I would probably make a whole class session out of the Wizard.

One counselor believed the Wizard contains so much useful information that trying to squeeze it into an already full course is not realistic:

If there was more time I would use it more. There is enough useful information in the Wizard to merit us spending more time on it. Literally what is on the Wizard is what students are interested in. What do you want to do, where do you want to go, how much will you get paid, how can you get there. All that information is in the Wizard. We could really make a 1 credit course out of just the Wizard.

One challenge exposed during this research is the cognitive dissonance between what the counselors believe is effective academic advising and how the counselor chooses to implement the Wizard as a component of academic advising. Counselors reported believing in a developmental model of academic advising. However, they are allowing the pretext of time to prevent them from providing what they feel is an appropriate method of delivering the Wizard to students. The counselor participants in this research said they would utilize the Wizard more often and in greater depth if they could find the time to do so. However, their reported use of the Wizard implies they cannot find the time in their private offices or classrooms to utilize the Wizard from a developmental perspective, so they apply a more prescriptive approach and expect students to take responsibility for developing an academic plan based on their findings.

*Students are utilizing the Wizard because it is a required class assignment.*

In all cases, the student participants in this study reported they completed the Wizard because it was a required assignment. Students reported having seen or heard about the Wizard before taking the course but they did not complete any part of it until it

was mandated in class. When asked if she completed the Wizard because it was a course requirement, one student replied, "It was definitely why I did it in the beginning. I did it because it was an assignment." One student explained, "It was a large part of our grade. It was required. It was a pretty hefty grade." Another student took it one step further, "I wouldn't have used it if it wasn't required."

Although every student participant entered the Wizard site because it was a required class assignment, almost every student found themselves quickly captivated by what the Wizard had to offer. One student stated, "At first it was about getting the assignment done but then I started reading and it dragged me into the Web site." Added another, "At first I was like, oh this is some crap assignment we're going to have to do. But I was pleasantly surprised." One other student explained how his perception of the assignment changed throughout his experience with the Wizard:

I was just, like, let me get this over with. But then as I went through it and started playing with different schools I wanted to go to and how to transfer, I got really into it. I was just going to do it for the credit but I kept on going and really liked it.

Many students accessed the site expecting very little but realized the Wizard provided useful information. One student stated, "At first I didn't expect anything from it. But then I finished with it and it kind of made me think about it, that I have other options." One student said she would have done the Wizard much earlier if she had known how useful she would find the Wizard. Another student admitted he initially accessed the Wizard simply to earn a passing grade: "I wanted just a good grade but then I saw what it was about. Transfer information, finance, money, costs and all of that. It actually turned out to be something."

Almost every student participant saw the Wizard prior to the class assignment yet none of the participants completed it because they did not know what it was. Several students commented on seeing the Wizard icon when they logged onto the college Web portal to access Blackboard, yet they disregarded it. “I saw it on Blackboard but I didn’t do anything with it because I didn’t know what it was” was one response. Another student added, “I saw it when I was registering for classes on (the college Web portal). I didn’t do anything with it because I didn’t know what it was.”

For many students there was simply nothing compelling about the Wizard icon. For others it was puzzling. Several students mistook the Wizard icon for a tool used to enhance the students’ Blackboard experience. One perplexed student said, “It looked like an ad. It did not look like something I needed to go to.” One student assumed the Wizard was a Web assistant, thinking it was the annoying paperclip guy who would pop up.

Two students who saw the Wizard icon opted to click on it. However, both failed to complete any part of it. One student quickly exited the site because it was asking her too many personal questions:

I clicked on it and this lady popped up. She just popped up and started talking. I did some questions but then I was like, why are they asking me what I am interested in? So I got out of it.

The second student stated, “I actually saw it on Blackboard and was like, what is this? I just hit it and started it. I did some questions but didn’t really know what I was getting into so I stopped.” That students had seen or heard about the Wizard before the course assignment yet failed to complete any part of it until it was mandated in class suggests the need for counselor consultation.

*Students who discussed their Wizard findings are more engaged in the Wizard.*

Students who indicated they discussed their findings with a counselor, family member, and/or friends reported further career-related exploration and more frequent return visits to the Wizard. Few students discussed the Wizard with a counselor outside of class, though most talked with a family member or friend. Several students shared their Wizard experience with a parent or spouse. One student spoke effusively of the Wizard after he and his classmates discussed their findings in class. He reported,

I've been out of school for eight years and it has helped a lot. I go back a lot. I was reading a book for (another) class and it said something about computer science. I was like, ok, I saw something about this on the Wizard. So it pushed me toward reading it and, like, had me wanting to go back to the Wizard and look up computer science and read more about it.

A female student who sought discussion with her advisor after discussing the Wizard in class said,

I went to see my advisor about being on the Wizard. She gave me a catalog of information on health care jobs and we talked about things I liked to do but never really recognized. I felt like it was helpful because it sort of brought me a conclusion about myself.

Others shared their Wizard experience with friends. One student explained how she and her friend who attends a neighboring community college talked about their findings.

Students who discussed their findings with someone else reported frequent return visits to the Wizard. One student who discussed the Wizard with her advisor said, "I went back twice today to try and figure out what I want to do." Another student who discussed the Wizard with her mother explained, "I have been back several times. I am just looking for stuff I am interested in. And I have been to a million Web sites and this is the best one I have found." Other students who discussed the Wizard in class added:

I have been back many times. I try to check on things whenever I can to try and figure out what I want to do. It had more than one job listing so I have referred back to it a lot.

I have been on it multiple times. I am using it a lot as I try to figure out what I want to do, how much money is to be made, how in demand things are, and what kind of schooling is involved.

Several students who discussed their findings with someone also encouraged others to explore the Wizard. One student said, "I went home and told my brother about it so he would do it." Another added, "I have two boys in high school. I wanted them to do it so I showed them and had them do it." One young male student explained,

I talked with my brother. He is 14 and at that stage where he is oblivious to what things are going to cost down the line, what effect his grades in school will have on college, things like that. I thought, if I show him this he will have a better idea.

The notion that post-discussion influences a student's desire to further explore the Wizard was evident. Several student participants who reported they did not discuss their findings with anyone expressed an interest in returning to the Wizard as a result of their participation in a focus group for this study. When asked if he had been back to the Wizard since his first visit, one male student said, "I think I am going to now that we are talking about it." One female who had very little to offer throughout the focus group responded, "Right after I leave here!" Another female agreed: "I am going back right after this so I can finish it."

After hearing her focus group peers discuss the Wizard, one female student who consistently expressed frustration with her Wizard experience said to the other participants,

I wish I was in your class. We didn't do nothing (sic) with it in class. I am going home to do it again. I didn't get it right the first time and I want to get something out of it. I don't even have to turn it in. I just want to get something out of it.

Several students who did not have the opportunity to discuss the Wizard in class, but who gained insight as a result of the focus group, revealed several things they now feel they should do. Two students indicated the need to go back and explore the Wizard more, one stated her desire to explore more about grants, and another two articulated the need to talk to their advisor more about college transfer.

*Students desire more discussion prior to and following their experience with the Wizard.*

In response to being asked how the Wizard could be better utilized as a component of academic advising, almost every student declared a desire for more pre- and post-discussion of the Wizard. Students feel it is helpful to have the Wizard explained prior to experiencing it so they can understand the purpose of the Wizard. Students also want to talk with someone about their findings after they have experienced the Wizard so they can gain additional insight into their findings.

Students believed the Wizard would be better utilized if it were explained in advance to students. One student stated, “Explain it to me. Someone should tell us about it before we start it.” Another student expanded on this and suggested students who understand the value of the Wizard might be more likely to access it early and, consequently, make more efficient use of their time in college:

It is about money. How many students start something and change their mind? They switch midstream and then they waste money. By telling them the Wizard might be a way to just make sure you are heading in the right direction, it can save you money.

Others reported prior knowledge would help them understand possible findings. One student stated, “It should be discussed before you take it in case you get something like a garbage man or something that isn’t very appealing.”



Some student participants expressed a desire for a greater understanding of the purpose of the Wizard. One student said, “If I knew what it was before I started I would have been much more eager to do it.” Another added, “We need to know what it is. Once we knew what it was we liked it. Maybe someone should first tell us what we are supposed to get out of it.” One student admitted he did not understand the purpose of the assignment and his initial objective was to rush through the assignment as quickly as possible. He eventually discarded his initial responses to the first career assessment and started over:

At first I was just randomly clicking on things. I was, like, this is not going to be interesting at all. I was trying to get the assignment over with so I did it and was, like, I wish I had actually read it. So I slowed down, started over and took my time.

Another student took it one step further: “I know the value now, but if I didn’t I wouldn’t do it.”

Almost every student participant expressed a need for subsequent discussion. One student stated, “We need to discuss it more to make it more helpful. I want to hear what other people got out of it.” Similar sentiments were expressed concerning more group discussion time in class. Students clearly articulated their desire for further discussion of their findings, and they believe such discussions would add value to the Wizard. One response summarized the students’ desire for consultation: “More discussion would have been valuable.”

One student believed more discussion might have been valuable for others, but because his career assessment revealed only one occupation of interest he felt he might not benefit. In response to the young man’s skeptical comment, a female participant explained the advantage of her class discussion:

But the way she (instructor) followed-up in class, even if you got only one selection, when she divided us up she had listings of careers under all these categories. So even if the Wizard only gave you one job or one major, she listed several other options we discussed in class. We got deeper into it. It would be helpful for guys like you who only had one thing. In class we expanded on our findings.

Another student immediately agreed and said, "I think it was an advantage to us when we talked about it in class." When the facilitator then asked the skeptical young man if that type of in-class exercise might have been helpful, he replied, "Yes, I think more discussion would have been valuable to me."

Students claimed they want more discussion following their experience with the Wizard, yet only two student participants sought follow-up from a counselor outside of class. Reasons for not meeting with a counselor outside of class varied. Some students reported they had no time to see anyone outside of class, some lacked faith in the counseling staff, others claimed their advisor was never available, and some simply said they made no effort to see anyone outside of class. The most frequent response when asked why they did not discuss the Wizard with a counselor outside of class was that students do not know who their advisor was. Some indicated they do not have one when, in fact, all students who have declared a program of study at the College have an assigned advisor.

*Students believe the Wizard is a valuable tool and wish they had been exposed to it earlier.*

Every student participant was of the same opinion: the Wizard should be introduced to students before they enroll in college classes. Some students suggested middle school and high school as appropriate times to introduce the Wizard. Several

participants believed it should be available on the college application or linked to the placement test one takes before enrolling in a community college. “I think you should take it before you enroll in classes” said one student. Another added, “The counselors should tell us before we sign up for classes.”

Discussing the Wizard after the student takes the placement test and before they register for classes was the most frequent suggestion. One student questioned why the Wizard is not mentioned during a student’s initial meeting with a counselor:

After you take the placement test you go meet with a counselor. You are about to pick classes. Why not throw it (Wizard) in there? You know, so you can know what classes you need to take. The people who say they don’t know what to major in, or even the people who say they do know, why not tell them about it? Give us the instructions then. It will help later on.

One student was straightforward when he threw his hands up and said, “The counselor could have told us (about the Wizard) right after we took the placement test!”

Two students contended the Wizard would have given them something to discuss during their first meeting with a counselor prior to enrollment. One student stated, “Right after the placement test, the counselor is already at the computer and they could show us the Wizard and we’d have something to talk about.” Another student added, “When you go see a counselor it (Wizard) would definitely give you something to talk about.”

The participants also recommended it for high school students, and several suggested the Wizard be made available in middle school so students “can start getting used to it so they can start using it in high school and college.” One participant with children of her own in middle school explained,

We have awesome specialty centers in our area and you have to know that ahead of time and apply in the eighth grade. If they start in the eighth grade the kids would be thinking about their careers and be more inclined to apply to a specialty center.

Several student participants stated they wished they had known about the Wizard in high school. One student described his frustrating career exploration experience in high school:

I remember in high school we spent two weeks on colleges and careers, and we wrote papers and looked through all sorts of books. It took a long time. It took forever! This resource would have been helpful. It might have saved me some time.

One student returning to college after working a full-time job added, “The Wizard would have been cool to do senior year. I might have gone to college straight out of high school.” Another explained, “I think even if you are a senior in high school you should be introduced to the Wizard so you have an idea of what you want to do when choosing your classes here (in college).”

One male student participant who was particularly quiet during most of the focus group felt strongly enough about this topic to interject the following sentiment:

The Wizard should be made available before a student starts classes here (in college). It is on Blackboard but it should be accessible to anyone. A lot of people are intimidated to go to college and I think doing the Wizard might help them a little bit before, you know, they jump on the bandwagon. They can figure out what they are interested in so they can get their minds set before they get in the game.

His comments represented what most participants strongly recommended: the Wizard should be made available to students early.

*Students and counselors believe the Wizard is not well promoted.*

Students are not aware of the Wizard. One student clearly articulated this sentiment: “So many things the Wizard could be and we don’t know about it.” A counselor supported this notion: “Most students don’t even know about it.” Students

seem to be uninformed and the counselors recognize their failure to promote the Wizard. One counselor confessed, “If we don’t bring it (Wizard) up then it is not used.” When asked how the Wizard could be better utilized, one counselor commented, “There is marketing. We could do a lot more to make people aware of it.”

There are two issues contributing to students’ lack of awareness of the Wizard: visibility and understanding. Some students reported they had never seen or heard of the Wizard before enrolling in the course while others saw, yet ignored, it on the Web portal. One student illustrated this when he said, “When you log on to (the Web portal) you see it. Other than that I learned about it in class”.

The students and counselors shared one common idea for public promotion: put the Wizard prominently on the college Web site. One counselor explained,

There is no public presentation out there about the Wizard. You know, about what it can offer and that it is free. I know there is a little link on the website but you know what? We have so much out there on the Web site that it is very easy for them not to see it.

Almost every student participant in each focus group agreed. One student innocently suggested, “Has the College ever thought about putting the Wizard on the Web page? Then people might do it before they enroll and you would have something to talk to the counselor about.” Added another student, “If I had seen it on the Web page I would have clicked on it.” One student declared with full support of his entire focus group, “It should be on the Web site, on the front page!”

Placing the Wizard on the front page of the Web site may not be enough to elicit student interest. Students have to know what it is. “Market it but not just ‘The Wizard.’ Tell them what it is” said one counselor. Another counselor added, “Students need to see

this as profitable or they are not going to utilize it.” Students expressed similar sentiments about the need to explicitly state what the Wizard is. One student explained,

You don't associate the Wizard with career assessment. On the Web page maybe put 'career assessment' by the Wizard. At least we would know what we are clicking on. Put it on the Web page with an explanation of what it can do.

Another student added,

If I knew what it was when I saw it then I would have done it. Now it just says 'Wizard' so why would I do it? It looks like an ad or something. It doesn't look like something I need to click on.

Student participants all agreed the Wizard icon alone is not enough to grab their attention, and in some instances the icon is confusing. As noted earlier, students admitted to skipping past the Wizard on the Web portal because it looked like an advertisement or a web enhancement. Students believed the Wizard would be better utilized if it were simply explained. One student who assumed the Wizard was the “annoying paperclip guy” suggested a description explaining the Wizard would encourage students to visit.

Other students echoed this sentiment:

If it was marketed better you could tell people what it is for and what it can do for you. Market it so people know it can help with what you want to do in college, how to transfer, tuition rates, and scholarships.

If people knew this was something that was going to help them find out what they want to do then they'd do it right away. I would have done it if it just said 'career assessment' instead of the Wizard. I had no idea.

One student concisely said, “Tell people what it is and how it can benefit them.”

### Summary

This qualitative study engaged community college counselors who provide academic advising and teach a freshman experience course, and students enrolled in a first-year experience course. The intent was to assess current advisor and student use of a

computer assisted guidance system, the Wizard. The counselors participating in this research all subscribe to a developmental model of academic advising, though they do not employ a developmental model of academic advising when implementing the Wizard. The counselors cite a lack of sufficient time as the reason for not utilizing a developmental approach when incorporating the Wizard into academic advising. The counselors utilize the Wizard in the classroom as a component of a first-year experience course. However, they do not regularly use the Wizard in their private offices in the provision of academic advising support to students. The counselors believe the Wizard is underutilized because it is not well promoted.

The students participating in this research utilized the Wizard because it was a required course requirement. Students feel it is helpful to have the Wizard explained prior to experiencing it so they can understand the purpose of the assignment. Students also want to talk with someone about their findings after they have experienced it so they can gain additional insight into their findings. Students who did discuss their Wizard findings were more interested in using the Wizard than those who did not discuss it. Students who discussed their findings with a counselor, family member, and/or friend made more frequent return visits to the Wizard and recommended the Wizard to others. The student participants recommend the Wizard be made available to students before they enroll in college courses. Like the counselors, students believe the Wizard is under utilized because it is not promoted very well.

## CHAPTER 5

### SUMMARY, RECOMMENDATIONS, AND CONCLUSIONS

One of the challenges facing today's community college academic practitioner is to provide advising services in meaningful ways to the diverse needs of the students served (Robinson et al., 2000). Academic advising is an integral part of the mission of higher education (Gordon et al., 2000), and counselors have a responsibility to provide an assortment of academic and career interventions in addition to traditional advising approaches (Niles & Garis, 1990). Comprehensive advising integrating diverse models and delivery methods benefits students and supports the mission of the community college (Robinson et al.).

The use of computer technology has become a basic component of academic and career advising (Fowkes & McWhirter, 2007). Computer assisted guidance systems are reported to be most effective when used in conjunction with activities such as group counseling, individual guidance, and career courses. When used independently computer assisted guidance systems also show some promise of providing effective results (Whiston et al., 1998). Computer assisted guidance systems (CAGS) may adapt well to various models of academic advising, and they have the ability to address the challenge of meeting the range of advising needs of community college students without sacrificing the integrity of academic advising (Fowkes & McWhirter).

The past decade has seen a large increase in the number of Web-based computer assisted career guidance systems (Gore et al., 2006), further increasing student accessibility to resources. Existing research regarding CAGS has focused on user satisfaction, and findings suggest users are satisfied with their experiences (Fowkes &



McWhirter, 2007). However, there is little research on advisor intervention strategies and how computer assisted advising systems are used in academic advising (Bloch, 2006; Fowkes & McWhirter; Sampson & Lumsden, 2000).

Community colleges enroll approximately 45 percent of the nation's student population attending institutions of higher education (Goldrick-Rab et al., 2009; Mellow & Heelen, 2008). Eighty percent of the recent growth in Virginia's institutions of higher education was in Virginia's community colleges, and a majority of this growth was in part-time enrollments (G. DuBois, personal communication, February 28, 2008). The combination of increased enrollment and large numbers of part-time students equates to increases in headcount and, subsequently, increases in the number of students seeking services such as academic advising.

In response, a computer assisted guidance system commonly referred to as the Wizard, was created by forward thinking leaders who, in 2006, identified a need for a web-based career and educational planning tool for the diverse population of current and prospective community college students. Today, the Wizard enables users to create region-, college-, and user-specific information on the breadth of education and career options that stem from the offerings of the state's community colleges (M.C. Herndon, personal communication, February 27, 2009). The Wizard provides an avenue to meet the varied needs of an increasing number of students.

#### Purpose of the Study

Technology has had a significant impact on how career assessment and advising is made available to college students, and research points toward continued growth of computer assisted career assessment tools (Gore et al., 2006; Oliver & Whiston, 2000;

Reile & Harris-Bowlsbey, 2000). The problem of this study was to assess current advisor and student use of a computer assisted guidance system and to recommend strategies to effect optimum utilization of current generation software. The purpose of this qualitative case study was threefold: (a) to understand current advisor and student use of a computer assisted guidance system in academic advising at a multi-campus, public, southeastern community college; (b) to recommend strategies to effect optimum utilization of a computer assisted guidance system as an academic and career planning tool for community colleges; and (c) to recommend approaches counselors and academic advisors in community colleges can use to integrate a computer assisted guidance system into academic advising.

Technology has enhanced the ability of counselors and advisors to disseminate academic and career information. However, the exploratory process of using CAGS has been ignored. How a student experiences the use of technology in academic and career exploration and what information is being explored remains unknown (Flum & Blustein, 2000). How counselors and advisors use CAGS also remains an unknown. In response, this study addressed the following research questions:

1. How do counselors at a multi-campus, public, southeastern community college utilize a computer assisted guidance system in the provision of academic advising support to students in a) a classroom and b) a private office?
2. How do students at a multi-campus, public, southeastern community college use a computer assisted guidance system?
3. How do different models of advising influence student use of a computer assisted guidance system in academic advising?

## Method

This qualitative case study explored the use of a computer assisted guidance system in academic advising to create a model for using a computer assisted guidance system as an academic and career planning tool for community colleges. The case study design allowed the researcher to get as close as possible to participants using a computer assisted guidance system, enabling him to collect descriptive data and provide heuristic meanings and inductive generalizations and concepts (Merriam, 1988). With the data, the researcher described the pragmatic use of a computer assisted guidance system across different models of academic advising from the advisor's and student's perspectives, describing advisor and student experiences with a computer assisted guidance system relative to academic advising.

### *Setting*

This study took place at a multi-campus, public, southeastern community college. The college offers college transfer programs and 52 Professional & Technical programs. The college is a multi-campus institution with an enrollment of over 5,000 FTE (full-time equivalent) and a headcount of approximately 10,000 students. Individual campus enrollments are almost equal, with each campus serving approximately half of the student enrollment. Approximately 70% of the student body is enrolled part-time with approximately 30% enrolled full-time. Approximately 62% of the student body is female and approximately 38% of the student body is male. Approximately 50% of all students enrolled in a program of study have selected a college transfer program as their intended program of study. Approximately 50% of all students enrolled in a program of study have selected a professional or technical program as their program of study.

Counselors at the community college provide academic and career advising to all new students. The counselors also teach a first-year experience course. All students who have declared a program of study and have been program-placed are encouraged to enroll in the course within the first 15 credit hours of enrollment at the community college.

### *Protocol*

The researcher triangulated methods and sources of data collection to ensure the credibility of this study. Data were collected using three methods: interviews, focus groups, and a short survey. Interviews with six counselors and six focus groups with students who had experienced a computer assisted guidance system were used to collect data. The interviews and focus groups were facilitated by the researcher. Standardized, open-ended questions were asked during interviews and focus groups to ensure the questions were asked of all participants (Appendix C and Appendix F). The researcher also provided the six interview participants with an anonymous survey to enhance the reliability of counselor interviews (Appendix G). To ensure the validity of the counselor interviews the researcher employed member checks to verify data collected during interviews. To increase the inter-observer reliability of the focus groups, one note taker took written notes during the focus group sessions.

Each data collection method was analyzed individually by coding and exploring for the emergence of themes. In addition, the methods of data collection were analyzed as an entire data set of one. Interview and focus group transcripts were interpreted by the researcher to identify fundamental topics within each individual case. Thematic categories were created based on identified fundamental topics. Data were re-read by the researcher to identify statements which fall under each category. To increase the content

validity and reliability of collected data, the researcher used an independent third party auditor to evaluate the transcribed data.

Data were categorized based on thematic similarities. Thematic similarities identified in interview and focus group transcripts were reviewed by the researcher. Upon a thorough evaluation of individual methods of data collection the researcher developed categories into larger themes across each method of data collection. Results were used to make recommendations to effect optimum utilization of a computer assisted guidance system as a component of academic and career advising.

### *Limitations*

When planned carefully the focus group serves as a comfortable environment in which participants share freely ideas and perceptions (Krueger & Casey, 2009). Findings from focus groups are difficult to measure because they are concerned with understanding participant attitudes rather than measuring them. In addition, findings are dependent upon the interaction between the facilitator and the participants, so an unskilled facilitator may assemble inaccurate conclusions (Patton, 2002). Focus group interviewing is effective when the moderator is nonjudgmental and open to what people have to say.

Challenges with interviews tend to be relative to the mechanics of conducting the interviews. The quality of the data collected is directly dependant upon the quality of the interaction (Kumar, 2005). Standardized interview questions can restrict the opportunity for unanticipated discoveries (Creswell, 2007). In addition, the researcher must be cognizant of the power distribution between interviewer and interviewee, ensuring a warm and caring two-way dialogue. Because the counselor participants and researcher in

this study are professionally connected, the researcher was particularly sensitive to potential ethical dilemmas. A detailed interview protocol clearly identified the purpose of the study as assessing a computer assisted guidance system and its effects on students.

### Results

This qualitative study engaged community college counselors who provide academic advising and teach a freshman experience course, and students enrolled in a freshman experience course. The intent was to assess current advisor and student use of a computer assisted guidance system, the Wizard. The objective was to recommend strategies to effect optimum utilization of the Wizard as an academic and career planning tool. The following presents the results of this study in the context of seven emergent themes.

*The counselors utilize the Wizard as a component of the first-year experience course, yet they rarely utilize the Wizard as a component of one-on-one academic advising in a private office.*

All of the counselors participating in this to some extent utilize the Wizard in the classroom on a regular basis as a component of the first-year experience course. All but one of the counselors participating in this study utilize the Wizard in the classroom as a required assignment in their class. One counselor who assigns the Wizard as a course requirement stated,

I have a homework assignment based on the Wizard so all students have to do it for credit. I pull it up in class so they can see it, then I tell them what the homework assignment will be. The only thing I have them turn in is the profile but by printing off the profile you know they looked at it.

Almost every student participant who completed the Wizard in class found his or her way to the section on college transfer. The section on college transfer revealed

specific transfer information and guaranteed admissions agreements, and shed light on the actual cost of attending a community college versus attending a four-year college. One student stated, "I thought about transfer before but when I read about it and got more information about it I was like, well it is smarter to stay here longer and then transfer." A second student added, "I knew I was saving a little money but when I compared it I didn't know I was saving that much. It was shocking."

Most of the counselors participating in this study are not regularly using the Wizard in their private office as a provision of academic advising support to students. When asked how often the Wizard is recommended to a student, most counselors stated they rarely reference the Wizard during a one-on-one advising session.

*The counselors all subscribe to a developmental model of academic advising, yet they do not make use of a developmental model of academic advising when utilizing the Wizard because they lack sufficient time to do so in their advising practices.*

All of the counselor participants subscribe to a developmental model of academic advising. In sharp contrast to their belief in a developmental approach toward academic advising is the counselors' failure to consistently make use of a developmental model, especially when utilizing the Wizard. It became evident through discussions that counselors believe in a developmental approach, yet lean toward a more prescriptive approach because of insufficient time.

The counselors want to spend more time in the classroom discussing the Wizard with their students. However, the notion of time as the reason for not doing so is evident. One counselor explained, "I don't have time for anything in class. If I had more time I might spend it on the Wizard." Another added,

The Wizard could be much better utilized if there was more time to give to the students. If we are going to help them be successful with the Wizard then we have to have time to interact with them. If you are going to use a tool and then not give any support then it is not a good tool. Students who are learning need a push. They need someone asking ‘What does this mean, does this help you?’ We are not doing that.

Some of the counselors do manage to find some time in the classroom for discussion. One counselor reported, “As time permits I talk about what the student should have completed.” Another explained,

We try and talk in class but there is a lot of material in class to cover. We talk for about half of one class. If I had more time I would probably make a whole class session out of the Wizard.

*Students are utilizing the Wizard because it is a required class assignment.*

In all cases, the student participants in this study reported they completed the Wizard because it was required. Students reported having seen or heard about the Wizard before taking the course but they did not complete any part of it until it was mandated in class. One student said, “I wouldn’t have used it if it wasn’t required.”

Every student participant entered the Wizard site because it was a required assignment. However, almost every student found themselves quickly captivated by what the Wizard had to offer. One student stated, “I wanted just a good grade but then I saw what it was about. Transfer information, finance, money, costs and all of that. It actually turned out to be something.”

Almost every student participant saw the Wizard prior to the class assignment. However, not one participant completed it because the students did not know what it was. Several students commented on seeing the Wizard icon when they logged onto the college Web portal to access Blackboard, yet they disregarded it. Said one student, “I saw it on Blackboard but I didn’t do anything with it because I didn’t know what it was.”



*Students who discussed their Wizard findings are more engaged in the Wizard.*

Student participants who discussed the Wizard after completing it were more engrossed in the Wizard than those who did not discuss it. With whom the discussion occurred did not seem to matter. Students who reported discussing their findings with a counselor, family member, and/or friends reported further career-related exploration and more frequent return visits to the Wizard. One female student who sought discussion with her advisor after discussing the Wizard in class said,

I went to see my advisor about being on the Wizard. She gave me a catalog of information on health care jobs and we talked about things I liked to do but never really recognized. I felt like it was helpful because it sort of brought me a conclusion about myself.

Few students discussed the Wizard with a counselor outside of class, though most talked with a family member or friend. Several students shared their Wizard experience with a parent or spouse. Others shared their Wizard experience with friends.

When asked if they had been back to the Wizard since their first visit, students who discussed their findings with someone else reported more frequent return visits to the Wizard than did students who did not discuss the Wizard with anyone. One student who discussed the Wizard with her mother explained, "I have been back several times. I am just looking for stuff I am interested in. And I have been to a million Web sites and this is the best one I have found." Another added:

I have been on it multiple times. I am using it a lot as I try to figure out what I want to do, how much money is to be made, how in demand things are, and what kind of schooling is involved.

Several student participants who reported they did not discuss their findings with anyone expressed an interest in returning to the Wizard as a result of their participation in a focus group for this study. After hearing her focus group peers discuss the Wizard, one

female student who consistently expressed frustration with her Wizard experience said to the other participants,

I wish I was in your class. We didn't do nothing (sic) with it in class. I am going home to do it again. I didn't get it right the first time and I want to get something out of it. I don't even have to turn it in. I just want to get something out of it.

*Students desire more discussion prior to and following their experience with the Wizard.*

When student participants were asked how the Wizard could be better utilized as a component of academic advising, almost every student declared a desire for more discussion of the Wizard. Students believed the Wizard would be better utilized if it were explained in advance to students. One student stated, "We need to know what it is. Once we knew what it was we liked it. Maybe someone should first tell us what we are supposed to get out of it."

Almost every student participant expressed a need for subsequent discussion. One student stated, "We need to discuss it more to make it more helpful. I want to hear what other people got out of it." One student believed more discussion might have been valuable for others, but because his career assessment revealed only one occupation of interest he felt he might not benefit. In response to the young man's skeptical comment, a female participant explained the advantage of her class discussion:

But the way she (instructor) followed-up in class, even if you got only one selection, when she divided us up she had listings of careers under all these categories. So even if the Wizard only gave you one job or one major, she listed several other options we discussed in class. We got deeper into it. It would be helpful for guys like you who only had one thing. In class we expanded on our findings.

Students claimed they want more discussion following their experience with the Wizard but only two student participants sought follow-up from a counselor outside of class. The most frequent response when asked why they did not discuss the Wizard with a

counselor outside of class was that students do not know who their advisor was. Some indicated they do not have one when, in fact, all students who have declared a program of study at the College have an assigned advisor.

*Students believe the Wizard is a valuable tool and wish they had been exposed to it earlier.*

Every student participant was of the same opinion: the Wizard should be introduced to students before they enroll in college classes. Some students suggested middle school and high school as appropriate times to introduce the Wizard. Several participants believed it should be available on the college application or linked to the placement test one takes before enrolling in a community college.

Most of the student participants suggested high school as an appropriate time to introduce the Wizard to students. One student described his frustrating career exploration experience in high school:

I remember in high school we spent two weeks on colleges and careers, and we wrote papers and looked through all sorts of books. It took a long time. It took forever! This resource would have been helpful. It might have saved me some time.

One student returning to college after working a full-time job added, “The Wizard would have been cool to do senior year. I might have gone to college straight out of high school.”

Students reported counselors should discuss the Wizard with a student early in the student’s academic tenure. Discussing the Wizard after the student takes the placement test and before they register for classes was the most frequent suggestion. One student questioned why the Wizard is not mentioned during a student’s initial meeting with a counselor:

After you take the placement test you go meet with a counselor. You are about to pick classes. Why not throw it (Wizard) in there? You know, so you can know what classes you need to take. The people who say they don't know what to major in, or even the people who say they do know, why not tell them about it? Give us the instructions then. It will help later on.

*Students and counselors believe the Wizard is not well promoted.*

Students are not aware of the Wizard. One student clearly articulated this sentiment: "So many things the Wizard could be and we don't know about it." A counselor supported this notion, "Most students don't even know about it." When asked how the Wizard could be better utilized, one counselor commented, "There is marketing. We could do a lot more to make people aware of it."

The students and counselors shared one common idea for public promotion: put the Wizard prominently on the college website. One counselor explained,

There is no public presentation out there about the Wizard. You know, about what it can offer and that it is free. I know there is a little link on the website but you know what? We have so much out there on the website that it is very easy for them not to see it.

Placing the Wizard on the front page of the website may not be enough to elicit student interest. Students have to know what it is. One student said,

If I knew what it was when I saw it then I would have done it. Now it just says 'Wizard' so why would I do it? It looks like an ad or something. It doesn't look like something I need to click on.

### Implications, Recommendations, and Conclusions

Literature suggests high-quality academic advising promotes student learning and improved retention rates (Austin et al., 1997; Backhus, 1989; Crockett, 2006; Gonzalez, 1997; Habley, 1982; Hester, 2008; King, 1993; Pace, 2001; Pascarella & Terenzini, 2005; Propp & Rhodes, 2006; Schlosser et al., 2003; Ting, 1997). Faculty/student contacts such as academic and career advising and counseling are considered essential services for the

community college student's success (Berman et al., 1990; Smith, 2002; St. Clair, 1993; Tinto, 1987; Tinto, 1999). A fundamental way to engage students in advising is to design programs that acknowledge their individual needs (Frost, 1991; Smith & Allen, 2006).

The Wizard is a web-based career and educational planning tool for current and prospective community college students. The Wizard enables users to create region-, college-, and user-specific information describing the breadth of education and career options that stem from the community college's offerings. Community college counselors and students are using the Wizard as a component of academic advising. The following are recommended strategies to effect optimum utilization of the Wizard based on the findings of this study.

#### *Train Counselors and Advisors to use the Wizard*

It is recommended that counselors and advisors receive training related to Wizard intervention strategies. Johnson and Sampson (1985) recommend that counselors have practical experiences with CAGS. They argue that training encompassing the integration of technical systems with an advising relationship is essential. Gore and Leuwinkle (2000) point out several authors who have challenged academic practitioners to make better use of technology in counseling and advising. The counselor participants in this research learned about the Wizard in two ways: by attending one informational session at which they were introduced to the Wizard, and/or through personal exploration. They were never taught how to effectively implement the Wizard as a component of academic advising. Untrained practitioners tend to assign advising strategies based on anecdotal evidence and individual biases (Niles & Garris, 1990). This is precisely what happened with the counselor participants in this study. They are utilizing strategies based on

individual biases because they know no other way. Counselors and advisors need training in order to develop advisor intervention strategies and advance optimum use of the Wizard as a component of academic advising.

Wizard intervention training should include techniques for integrating the Wizard with supplemental career related resources. Counselor participants use other tools such as the Myers-Briggs Type Indicator, DISCOVER and the Strong Interest Inventory. Literature suggests CAGS should integrate a variety of resources, and in conjunction with competent advising or counseling (Eveland et al., 1998; McMinn et al., 1999; Nils & Garris, 1990; Sampson, 2000b; Sampson et al., 1992). Training counselors to integrate the Wizard and other career related resources is strongly recommended.

The Wizard is designed to provide students support throughout their academic tenure. The Wizard can be tailored to meet the individual needs of each independent user, and users can make use of it over a period of time. Wizard intervention training should include how to use the Wizard over an extended period of time as part of the students' academic and career decision making process.

#### *Introduce the Wizard to Students Early*

It is recommended that the public school systems begin to utilize the Wizard. This recommendation was a strong recommendation of student participants in this research project. Participants recommended all high school students experience the Wizard. In fact, some participants recommended that the Wizard be made available to students as early as middle school. Public school counselors and administrators should be exposed to the Wizard and encouraged to utilize the Wizard as a component of the secondary school curriculum.

Previously recommended training sessions should focus on the needs of the population being served. If middle school and high school counselors are going to use the Wizard they need specific training for their student populations. It is recommended that middle school and high school counselors receive Wizard intervention training, and that each group receive training specific to their populations.

The greatest risk for voluntary college attrition is between the freshman and sophomore year (Pascarella & Terenzini, 2005). This period of time is viewed as the most critical due to its direct influence on subsequent attrition rates (Levitz et al., 1999). Making available academic and career advising support services which attribute to effective student retention is critical during the students' first year of enrollment. It is recommended that the Wizard be made readily accessible to college students during the first year. Whether counselors present the Wizard to students in a private office or classroom, counselors should brief students on the Wizard before students access it, counselors should disseminate instructions for student access and navigation, and counselors should consult with students after students access the Wizard.

#### *Continue Utilizing the Wizard as a Course Requirement in the Classroom*

The Wizard should be a required course component. The apparent disconnect between student and counselor outside of the classroom, coupled with the students' desire to talk about their Wizard findings, suggests the most beneficial time to discuss the Wizard is as a component of a first-year experience course. Counselor/student face-to-face interaction has been shown to increase the effectiveness of CAGS (Garis & Niles, 1990; Hinkle, 1992; Kirk, 2000; Kivlighan et al., 1994), and counselors and students interrelate naturally in the classroom. In addition, all community college students who

have declared a program of study and have been program-placed are encouraged to enroll in a study skills or first-year course within the first 15 credit hours of enrollment at the community college. With the majority of program-placed students enrolling early in their academic tenure, this is an opportune venue for introducing the Wizard to students early.

Classroom instructors should explain the purpose of the Wizard to students before it is assigned. In addition, the required course assignment should be developed to instill student engagement. Instructions for accessing the Wizard and how to navigate the Wizard should be provided to the student. Counselors should consult with students after students have accessed it.

#### *Supplemental Counselor/Student Consultation*

It is recommended that counselors develop methods for introducing the Wizard to students in a private office during academic advising. When possible, counselors should discuss the purpose and value of the Wizard with student advisees. This recommendation is consistent with current literature which suggests that technical systems such as the Wizard be used in conjunction with competent advising or counseling (Eveland et al., 1998; McMinn et al., 1999; Sampson, 2000b; Sampson et al., 1992).

On some occasions counselors and students have limited time together in a private office. When time is strictly limited the Wizard should be mentioned as a part of academic advising even if the counselor only has time to give the student a pamphlet with instructions. Sampson et al. (1989) suggest the level of credibility and trustworthiness of technical systems is often lacking when human interaction is absent. On such occasions when time is strictly limited the counselor should strongly emphasize the importance of supplemental counselor consultation.



It is recommended that counselors teaching the first-year courses and utilizing the Wizard as a component of the course make time available to discuss with students the Wizard. Counselors should introduce the Wizard to students prior to students accessing the Wizard. Counselors should explain the purpose of the Wizard and demonstrate the values of the Wizard. Counselors should offer consultation after students access the Wizard. How the recommended consultation is carried out is left to the counselor but it can be carried out on an individual basis or as a group.

### *Publicize the Wizard*

Student and counselor participants in this research agree the Wizard is poorly marketed. There are two marketing issues to be addressed: visibility and understanding. It is recommended the Wizard be placed prominently on the front page of the college Web site. In addition, an explanation of the Wizard should be visible. According to several participants of this study, placing the Wizard on the college Web site may not be enough to elicit interest; an explanation of what it is should be included. Visitors to the college Web site should be able to see the Wizard icon and understand it is a tool to help students assess their career interests and explore colleges and universities throughout the state.

The Wizard icon is currently found on community college Web portals. Students log on to their school Web portal to access academic records, Blackboard and email. It is recommended that the Wizard icon seen on college Web portals include a descriptive statement about the Wizard. Students logging on to their Web portal should be able to see the Wizard icon and understand it is a tool to help students assess their career interests and explore colleges and universities throughout the state.

A Wizard brochure should be created for marketing purposes. The brochure should include a history of the Wizard, the purpose of the Wizard, and the student value and utility of the Wizard. The brochure should include instructions for accessing and navigating the Wizard. The brochure can be distributed during academic advising sessions in a private office and in the classroom. The brochure can also be distributed to prospective students during college recruiting events.

### *Further Research*

One suggestion for further research is to examine whether counselor/student consultation influences student use of the Wizard. Literature suggests CAGS may adapt well to either a prescriptive approach or developmental approach to academic and career advising (Fowkes & McWhirter, 2007). Findings from this study neither support nor dispute the literature, although students seem to be more engaged in the Wizard when an approach incorporating consultation and discussion was utilized. Findings from focus groups are difficult to measure because they are concerned with understanding participant attitudes rather than measuring them (Patton, 2002). Research measuring student attitudes of the Wizard with and without pre- and post-discussion is recommended to further examine student utilization of the Wizard.

A second suggestion for further research is to examine the impact the Wizard has on community college retention rates. Pascarella & Terenzini (2005) indicate the greatest risk for voluntary attrition is between the freshman and sophomore year. Johnson and Johnson (2005) point out that no other college experience is more strongly linked to student retention than student/faculty interaction. Findings from this study suggest the Wizard should be readily accessible to college students prior to or during the students'

first year of enrollment, and more counselor/student consultation is encouraged. The purpose of this qualitative study was to assess current advisor and student use of the Wizard rather than measure outcomes of the Wizard. Therefore, the researcher did not examine the impact the Wizard might have on student retention. Quantitative research measuring the impact early implementation of the Wizard and increased counselor/student consultation might have on community college retention is strongly recommended.

A third suggestion for further research is to carry out expansive quantitative research at other community colleges. The Wizard is utilized on many community college campuses. However, there is no standard method of providing the Wizard to students. Because of this there is no guarantee the results of this qualitative study will translate to other schools (Creswell, 2007). Community college administrators should conduct expansive quantitative research to better understand how the Wizard is utilized at other community colleges. As administrators share and understand how the Wizard is utilized at each community college, commonalities and variations may be identified to further enhance the utilization of the Wizard across all campuses.

A fourth suggestion for further research is to assess whether demographic characteristics impact the utilization of the Wizard. Quantitative research may identify whether specific populations are more or less inclined to utilize the Wizard as a component of academic advising. In addition, a quantitative design can measure the impact the utilization of the Wizard might have on student retention rates.

A fifth suggestion for further research is to replicate this study using distance education students as the population. This study collected data from community college

students enrolled in courses held on a community college campus. Data were not collected from community college students enrolled in courses delivered via distance education. To reach a larger population it would be beneficial to assess the utilization of the Wizard with regard to community college students enrolled in online courses.

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## APPENDIX A

Hi "Advisor"-

As part of my Ph.D. in Community College Leadership at Old Dominion University, I am conducting a research project and would like to know more about your experiences as an academic advisor and your use of the Virginia Education Wizard. The purpose of the study is to assess current advisor and student use of the Virginia Education Wizard and to recommend strategies to improve the use of the Wizard. Would you be available for an interview to discuss your approach to academic advising and your experiences with the Wizard at John Tyler Community College?

The interviews will be recorded and later transcribed by me. Your interview will be confidential. Your name will not be used in any discussions or in the any writings related to the research. Only group data will be reported.

The interviews will take place within the next three weeks at a time convenient to you. Please let me know if you are interested in participating.

Chris

## APPENDIX B

### **Informed Consent Form: Interview**

Virginia Education Wizard  
Chris Pfautz

#### **Description of the research and your participation**

You are invited to participate in a research study conducted by Chris Pfautz, a doctoral student in the Community College Leadership Program at Old Dominion University. The purpose of the study is to assess current advisor and student use of a computer assisted guidance system and to recommend strategies to effect optimum utilization of current generation software. All findings will be used for the sole purpose of improving the use of technology in academic advising.

Your involvement in the study will include participation in a one-on-one interview and a 10 question survey.

The activities will be conducted in a private office at JTCC. The interview will require approximately 1-2 hours to complete. Data will be collected between 02-21-2010 and 04-30-2010.

#### **Risks and discomforts**

There are no known risks associated with this research.

#### **Potential benefits**

This research is intended to provide guidance to Virginia community college counselors and advisors about how to improve the utilization of a computer assisted guidance system in academic advising. As such, potential benefits of participation include contributing to the understanding of academic advising and potential program improvement to meet the needs of community college students.

#### **Protection of confidentiality**

All information will be held in the strictest confidence. At no point will data resulting from the interview be identified with you personally. Your identity will not be revealed in any discussion that might result from this study. In order to ensure confidentiality and data security, electronic data will be stored on a password-secured personal computer to which the researcher has exclusive access. Items such as audio recordings and notes will be stored in a locked file cabinet.



In rare cases, a research study will be evaluated by an oversight agency, such as Old Dominion University. Such oversight will require that information collected from you be anonymously shared. In this situation, the information would only be used to determine if we conducted this study properly, and adequately protected your rights as a participant.

### **Voluntary participation**

Your participation in this research study is voluntary. You may choose not to participate, and you may withdraw your consent to participate at any time. You will not be penalized in any way should you decide not to participate or to withdraw from this study. Should you decide to withdraw, all information collected will be destroyed and excluded from analysis.

### **Contact information**

If you have any questions or concerns about this study, please contact Chris Pfautz at John Tyler Community College at 804-594-1565 or [cpfautz@jtcc.edu](mailto:cpfautz@jtcc.edu).

### **Consent**

**I have read this consent form and have been given the opportunity to ask questions. I give my consent to participate in this study.**

Participant's name (please print) \_\_\_\_\_

Participant's signature \_\_\_\_\_

Date \_\_\_\_\_

The participant will be provided with a copy of this consent form.

## APPENDIX C

**Interview Protocol  
Academic Advising**

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Call the counselor a week before the scheduled interview to confirm the meeting time and place.

Counselor:

Interviewer:

Date:

Location:

**"As part of my Ph.D. in Community College Leadership at Old Dominion University, I am conducting a research project and would like to know more about counselor's experiences as academic advisors and the use of the Virginia Education Wizard. This interview will help me understand how counselors are using the Wizard, how students are using the Wizard, and how student use of the Wizard affects students."**

**"I would like to record our conversation if that is okay with you, so that I will have an accurate record. Our conversation will be confidential. Your name will not be used in the transcript, in any discussions or in the any writings related to the research. Only group data will be reported. Is that okay?"**

<Be sure to record the above paragraphs, and the questions & answers.>

**"Do you have any questions about this project? Are you OK to start?"**

**1. "Tell me about what you do at John Tyler"**

Topics to be used for probing:

- What do you do, not what your description says you do
- How long have you been here
- What do you do with students
- What is a typical day like

**2. "What do you like best about your job?"**

Topics to be used for probing:

- Peers
- Students
- Salary/benefits
- Nothing

**3. “Tell me a little bit about what you think academic advising should be”**

\*Interviewer: Be careful not to bias replies with probing follow-up\*

Topics to look for:

- Class options
  - How to learn more
  - What the student should take
- Registration
  - Advisor registers student for classes
  - Advisor teaches student how to register
- Checking grades/academic progress
- Career interests
  - How to learn more
  - What the student should do
- Transfer opportunities
  - How to learn more
  - Where the student should transfer
- Financial Aid

**4. “How much time should be spent getting to know the student?”**

\*Interviewer: Be careful not to bias replies with probing follow-up\*

Topics to look for:

- Name
- Non-academic interests
- Family information
- Employment history
- Academic history

**5. “How do you manage a student who is facing a difficult decision?”**

\*Interviewer: Be careful not to bias replies with probing follow-up\*

Topics to look for:

- Explain alternatives and tell them what is best
- Explain alternatives and consider the consequences of each
- Focus only on academic issues rather than personal issues

**6. “How would you respond to a student unsure about choosing a major?”**

\*Interviewer: Be careful not to bias replies with probing follow-up\*

Topics to look for:

- Suggest specific academic/career options
- Suggest steps student can take to make the decision

**7. “How important is it for an advisor to show interest in a student’s out-of-class activities?”**

\*Interviewer: Be careful not to bias replies with probing follow-up\*

Topics to look for:

- Not
- A little
- Very

**8. “How do you identify realistic goals for the student?”**

\*Interviewer: Be careful not to bias replies with probing follow-up\*

Topics to look for:

- Review test scores, past academic records and discuss with the student
- Review test scores and past academic records and tell student
- Identify realistic goals for student
  - Based on test scores/past academic history
- Assist student identify realistic goals based on self-knowledge

**9. “How would you explain the Wizard to someone who knew nothing about it?”**

\*Interviewer: Be careful not to bias replies with probing follow-up\*

Topics to look for:

- What is it?
- What does it do?
- How does it work?
- How do you like it?
- How do students like it?

**10. “How did you learn to use the Wizard?”**

\*Interviewer: Be careful not to bias replies with probing follow-up\*

Topics to look for:

- VCCS information session
- VCCS training
- From my peers
- On my own

**11. “How often do you recommend the Wizard to a student?”**

**12. “Why do you use the Wizard?”**

\*Interviewer: Be careful not to bias replies with probing follow-up\*

Topics to look for:

- Required to use it
- I like
- Students like it

- 13. “In what instances would you recommend the Wizard to a student?”**
- One on one counseling
  - Teaching
  - In office
  - In classroom
- 14. “Tell me a little about how you recommend the Wizard to a student in your office. What do you tell a student?”**
- 14a. “What do you advise a student to do after he/she completes the Wizard?”**
- Return to see me
  - Come to SDV class prepared to discuss
  - Research on own
- 14b. “How often do you discuss the Wizard with students after they have completed it?”**
- 15. “Tell me a little about how you recommend the Wizard to a student in your SDV class. What do you tell the student?”**
- 15a. “What do you advise a student to do after he/she completes the Wizard?”**
- Return to see me
  - Come to SDV class prepared to discuss
  - Research on own
  - Written assignment
- 15b. “How often do you discuss the Wizard with students after they have completed it?”**
- 16. “What do you expect students to get out of the Wizard?”**
- 17. “What do you do to help students achieve this?”**
- 18. “How could the Wizard be better utilized in academic advising?”**
- \*Interviewer: Be careful not to bias replies with probing follow-up\*
- Topics to look for:
- Advisor training
  - Student training
  - Transfer issues
  - Support
  - Additional staff
  - Marketing/Advertising

**19. “I’ve asked you a lot about academic advising and the Wizard. Is there anything else you would like to share?”**

**“Thank you for taking the time out of your busy schedule to meet with me today. Is there anything else you feel would be helpful for me to know? ..... Again, thank you very much. Have a wonderful semester!”**

## APPENDIX D

Hi "Student"-

As part of my Ph.D. in Community College Leadership at Old Dominion University, I am conducting a research project and would like to know more about your experiences with the Virginia Education Wizard. The purpose of the study is to assess current advisor and student use of the Virginia Education Wizard and to recommend strategies to improve the use of the Wizard.

Part of my research includes student focus group interviews. Would you be willing to participate? We would spend 1-2 hours with approximately six other students discussing your personal experience with the Wizard. The interview will be confidential. Your name will not be used in any discussions or in any writings related to the research. Only group data will be reported.

The focus group will be held on 00-00-0000 from 00:00 to 00:00. Please let me know if you are available to participate.

I hope this semester is going well! Talk to you soon.

Chris

## APPENDIX E

### **Informed Consent Form: Focus Group**

Virginia Education Wizard  
Chris Pfautz

#### **Description of the research and your participation**

You are invited to participate in a research study conducted by Chris Pfautz, a doctoral student in the Community College Leadership Program at Old Dominion University. The purpose of the study is to assess current advisor and student use of a computer assisted guidance system and to recommend strategies to effect optimum utilization of current generation software. All findings will be used for the sole purpose of improving the use of technology in academic advising.

Your involvement in the study will include participation in a focus group interview.

The activities will be conducted in a meeting room at JTCC. The focus group interview will require approximately 1-2 hours to complete. Data will be collected between 02-21-2010 and 04-30-2010.

#### **Risks and discomforts**

There are no known risks associated with this research.

#### **Potential benefits**

This research is intended to provide guidance to Virginia community college counselors and advisors about how to improve the utilization of a computer assisted guidance system in academic advising. As such, potential benefits of participation include contributing to the understanding of academic advising and potential program improvement to meet the needs of community college students.

#### **Protection of confidentiality**

All information will be held in the strictest confidence. At no point will data resulting from the interview be identified with you personally. Your identity will not be revealed in any discussion that might result from this study. In order to ensure confidentiality and data security, electronic data will be stored on a password-secured personal computer to which the researcher has exclusive access. Items such as audio recordings and notes will be stored in a locked file cabinet.

In rare cases, a research study will be evaluated by an oversight agency, such as Old Dominion University. Such oversight will require that information collected from you be



anonymously shared. In this situation, the information would only be used to determine if we conducted this study properly, and adequately protected your rights as a participant.

### **Voluntary participation**

Your participation in this research study is voluntary. You may choose not to participate, and you may withdraw your consent to participate at any time. You will not be penalized in any way should you decide not to participate or to withdraw from this study. Should you decide to withdraw, all information collected will be destroyed and excluded from analysis.

### **Contact information**

If you have any questions or concerns about this study, please contact Chris Pfautz at John Tyler Community College at 804-594-1565 or [cpfautz@jtcc.edu](mailto:cpfautz@jtcc.edu).

### **Consent**

**I have read this consent form and have been given the opportunity to ask questions.  
I give my consent to participate in this study.**

Participant's name (please print) \_\_\_\_\_

Participant's signature \_\_\_\_\_

Date \_\_\_\_\_

The participant will be provided with a copy of this consent form.

## APPENDIX F

**Focus Group Protocol  
Student Perceptions of WIZARD**

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The researcher will act as the moderator of the focus group. Participants are greeted as they enter the room and asked to take a chair around the table. Prior to beginning the session the moderator explains the purpose to the group.

The participants are selected from students enrolled in SDV 100, a first-year experience course, during the spring 2010 semester. The sample was identified and contacted by the college staff.

**“I want to thank you all for coming today and being willing to participate in this research. The purpose of the study is to assess current advisor and student use of the Virginia Education Wizard and to recommend strategies to effect optimum utilization of the Wizard. All findings will be used for the sole purpose of improving the use of technology in academic advising. I will record the group conversation and take written notes during the session. Your comments will be confidential. You will not be personally identified in any research reports. Before we begin I want to remind you to allow other people to finish speaking before making any additional comments. It is ok to disagree with what someone else says but please do not criticize the person. I want you to feel free to share your own opinions and experiences. There are no right or wrong answers to any of the questions. I ask that you not share anything outside of this room that anyone says today. If there are no questions, then let’s begin.”**

Section 1: Warm-up (5-15minutes)

**1. “What animal would you say best describes your educational experience at JTCC? Please write your response on the note card.”**

Participants are given two of minutes and then asked to share their responses.

**2. “What sport would you say best describes your educational experience at JTCC? Please write your response on the note card.”**

Participants are given two minutes and then asked to share their responses.

---

Section 2: Personal Experience (20-40 minutes)

**1. “How did you first learn about the Wizard?”**

\*Interviewer: Be careful not to bias student replies with probing follow-up\*

Topics to look for:

- JTCC Website
- SDV 100/Teacher/Instructor
- Counselor
- Friend/Parent
  - Security guard
  - High school counselor
  - Website
  - Called and told on the phone
  - The printed schedule
  - Student Services brochure

**2. “Why did you use the Wizard?”**

\*Interviewer: Be careful not to bias student replies with probing follow-up\*

Topics to look for:

- Required for SDV 100
- Counselor recommended
- Friend recommended
- I needed career assistance

**3. “Tell me a little bit about your experience with the Wizard.”**

\*Interviewer: Be careful not to bias student replies with probing follow-up\*

Topics to look for:

- Where did you complete it (in class, on campus, at home)
  - Why did you choose that location
- Explain what you did first
  - Create an account
  - Completed the Career Assessment
    - Rushed through it
    - Answered questions thoroughly
  - Completed the College Cost Calculator
  - Completed the Financial Aid Estimator
  - Completed the Transfer Planner
    - Created an account to plan my transfer

- Explain what you did next
    - Created an account
    - Completed the Career Assessment
      - Rushed through it
      - Answered questions thoroughly
      - Reviewed my answers
    - Completed the College Cost Calculator
      - Compared JTCC to 4-year colleges of interest
    - Completed the Financial Aid Estimator
      - Made up numbers to see how it worked
      - Used real numbers to see what I might get
    - Completed the Transfer Planner
      - Used colleges of interest
      - Created an account to plan my transfer
  - Repeat “Explain what you did next” until participants’ replies are exhausted
  - After you completed the inventory and began to explore careers, did you go back and change your answers in the inventory?
4. **“How did you decide to navigate/complete the Wizard the way you did?”**  
 \*Interviewer: Be careful not to bias student replies with probing follow-up\*  
 \*Look for Prescriptive and Developmental characteristics\*  
 Topics to look for:
- Was given instructions by counselor/teacher
  - I just started and figured things out
  - I did what I was told to do
  - I rushed through it
5. **“What did you expect to get out of the Wizard?”**  
 \*Interviewer: Be careful not to bias student replies with probing follow-up\*  
 Topics to look for:
- Told what I should be (professionally)
  - Told what classes to take
  - Told what to major in
  - An understanding of transfer requirements
  - An understanding of the GAAs
  - An understanding of Financial Aid
  - An understanding of academic requirements classes
  - Nothing
6. **“What was most beneficial to you about the Wizard?”**  
 \*Interviewer: Be careful not to bias student replies with probing follow-up\*  
 Topics to look for:

- Told what I should be (professionally)
  - Told what classes to take
  - Told what to major in
  - An understanding of transfer requirements
  - An understanding of the GAAs
  - An understanding of academic requirements/what classes I need
  - Nothing
7. **“Have you been back to the Wizard since your first visit?”**
- How many times?
  - Why? Why not?
8. **“Who did you discuss your Wizard findings with?”**  
\*Look for Prescriptive and Developmental characteristics\*
- Counselor
  - Friends
  - Parents
  - No one
9. **“Where did this discussion take place?”**
- Classroom
  - Counselor’s/Advisor’s office
  - Home
  - Other
10. **“How much time did you spend with a counselor discussing your experience with Wizard?”**  
\*Interviewer: Be careful not to bias student replies with probing follow-up\*  
\*Look for Prescriptive and Developmental characteristics\*  
Topics to look for:
- None
  - 15 minutes
  - 30 minutes
  - 45 minutes
  - 1 hour
  - Unlimited

**11. “Tell me what you did with the counselor.”**

**12. “If you did spend time with a counselor discussing your experience with the Wizard, what was most beneficial to you about the discussion?”**

\*Interviewer: Be careful not to bias student replies with probing follow-up\*

\*Look for Prescriptive and Developmental characteristics\*

Topics to look for:

- A better/clearer understanding of what I learned
- A better/clearer understanding of what I should be (professionally)
- A better/clearer understanding of what classes to take
- A better/clearer understanding of what to major in
- A better/clearer understanding of transfer requirements
- A better/clearer understanding of the GAAs
- A better/clearer understanding of academic requirements classes
- Nothing

**12a. “Did you feel better prepared to discuss academic or career issues with a counselor after you completed the Wizard?”**

**13. “If you didn’t spend time with a counselor discussing your experience with the Wizard, Why?”**

\*Interviewer: Be careful not to bias student replies with probing follow-up\*

Topics to look for:

- I didn’t know I could
- I wasn’t invited
- It wasn’t required/I wasn’t told to do so
- The counselor don’t seem interested
- I am not interested
- I don’t have time

**13a. “Would you go to your counselor to further discuss information you learned from the Wizard?”**

\*Interviewer: Be careful not to bias student replies with probing follow-up\*

\*Look for Prescriptive and Developmental characteristics\*

- Why or why not?

14. **“When do you feel the Wizard should be made available to students?”**  
\*Interviewer: Be careful not to bias student replies with probing follow-up\*  
Topics to look for:
- Before registering for classes in college
  - First semester
  - Just before registration
  - Always
15. **“How much time do you feel is sufficient for completing the Wizard?”**  
\*Interviewer: Be careful not to bias student replies with probing follow-up\*  
Topics to look for:
- 15 minutes
  - 30 minutes
  - 45 minutes
  - 1 hour
  - Days
  - Weeks
  - Unlimited
16. **“What concerns, if any, do you have about the Wizard?”**
17. **“How could the Wizard be better utilized?”**  
\*Interviewer: Be careful not to bias student replies with probing follow-up\*  
\*Look for Prescriptive and Developmental characteristics\*  
Topics to look for:
- Advisor training
  - Student training
  - Transfer issues
  - Support
  - Additional staff
  - Marketing/Advertising
18. **“Is there anything else you’d like to share about the Wizard?”**  
\*Interviewer: Be careful not to bias student replies with probing follow-up\*

**“I want to thank you all for your participation. If you have any questions I will answer them now. If there are no questions, then we are finished.”**

## APPENDIX G

## Counselor Survey

1. How often do you and the student discuss vocational opportunities in conjunction with academic advising?

- Never
- Sometimes
- Frequently
- Always

2. How often do you and the student discuss non-academic interests and plans in conjunction with academic advising?

- Never
- Sometimes
- Frequently
- Always

3. How often do you and the student discuss on-campus extracurricular activities in conjunction with academic advising?

- Never
- Sometimes
- Frequently
- Always

4. How often do you and the student discuss expectations of academic advising and of each other?

- Never
- Sometimes
- Frequently
- Always



5. How often do you and the student discuss steps the student can take in order to decide on a major?

- Never
- Sometimes
- Frequently
- Always

6. How often do you recommend the Wizard to students?

- Never
- Sometimes
- Frequently
- Always

7. In what setting do you use the Wizard (check all that apply)?

- Private office
- Classroom
- Workshop
- Other

8. How do you use the Wizard with students (check all that apply)?

- I don't use the Wizard
- I require it as an SDV assignment
- I recommend it to my SDV classes
- I use it as a component of one-on-one academic advising

9. What do you advise a student to do after he/she completes the Wizard (check all that apply)?

- Nothing
- Return to see me in my office for additional advising
- Return to class prepared to discuss findings
- Continue to research your own
- Other

10. Please rank from 1-6 your priority for the use of advising time with a student. Mark the item you feel is the most important in academic advising with a 1, mark the item you feel is the second most important in academic advising with a 2, and so on until all six items are marked.

- Discussing vocational opportunities
- Discussing student's non-academic interests
- Discussing student involvement in on-campus extracurricular activities
- Clarifying expectations of academic advising
- Discussing steps a student can take to decide on a major
- Discussing what classes a student should take

## APPENDIX H

**Focus Group Moderator Training Guide**

James A Calliotte  
Director of Counseling and Advising Services  
Old Dominion University

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Director of University Assessment  
Institutional Research and Assessment  
Old Dominion University

## **Focus Group Moderator Training Guide**

### **Definition**

(Krueger, 1994)

"...a carefully planned discussion designed to obtain perceptions on a defined area of interest in a permissive, nonthreatening environment. It is conducted with approximately 7 to 10 people by a skilled interviewer. The discussion is comfortable and often enjoyable for participants as they share their ideas and perceptions. Group members influence each other by responding to ideas and comments in the discussion" (p. 6).

"a group discussion that resembles a lively conversation among friends or neighbors" (Morgan, 1988, p. 22)

### **Characteristics**

(Morgan, 1988)

- "Focus group interviews typically have six characteristics or features. These characteristics relate to the ingredients of a focus group: (1) people, (2) assembled in a series of groups, (3) possess certain characteristics, and (4) provide data (5) of a qualitative nature (6) in a focused discussion" (Krueger, 1994, p. 16).
- Useful in investigating what participants think; but excel at uncovering why participants think as they do
- **Focus groups include** (Greenbaum, 1988):
  - Multiple Respondents
  - Interaction of respondents
  - Moderator present
  - Use of Moderator Guide
- **Effective focus groups**
  - Cover maximum **range** of topics; some cued by the researchers and others brought up by the participants
  - Provide **specific** data about participants' perspectives and experiences as a basis of their attitudes and opinions
  - Explore participants' experiences in **depth**
  - Explore the **personal context** within which participants offer their attitudes and opinions

## **Advantages of Focus Groups**

(adapted from Hess, 1978)

- **Synergism**: The combined effect of the group will produce a wider range of information, insight, and ideas than will the culmination of the responses of a number of individuals when these replies are secured privately.
- **Snowballing**: A bandwagon effect often operates in a group interview situation in that a comment by one individual often triggers a chain of responses from the other participants
- **Stimulation**: Usually after a brief introductory period the respondents get "turned on" in that they want to express their ideas and expose their feelings as the general level of excitement over the topic increases in the group
- **Security**: The participants can usually find comfort in the group in that their feelings are not greatly different from other participants and they are more willing to express their ideas and feelings.
- **Spontaneity**: Since individuals are not required to answer any given question in a group interview, their responses can be more spontaneous and less conventional, and should provide a more accurate picture of their position on some issues.
- **Serendipity**: It is more often the case in a group rather than individual interview that some idea will "drop out of the blue."
- **Structure**: The group interview affords more flexibility than the individual interview with regard to the topics covered and the depth with which they are treated.
- **Speed**: Since a number of individuals are being interviewed at the same time, the group interview speeds up the data collection and analysis process.

## **Characteristics of Good Focus Group Moderators**

- **Quick learner / Conceptual**
- **A "friendly" leader**
- **Knowledgeable but not all knowing**
- **Excellent memory**
- **Good listener**
- **A facilitator, not a performer**
- **Flexible**
- **Empathic**
- **A "big picture" thinker**

## **Moderator Role**

**"The overall mission of a moderator is to elicit inputs from the assembled group that will achieve the objectives of the focus group session established by the researchers." (Greenbaum, 1988, p. 46).**

### ➤ **To "elicit inputs"**

- Participants are invited to share attitudes and opinions and moderator facilitates this process
- Avoid question-and-answer sessions
- Moderator should be a good listener
- Moderator should talk less than 1/3 of the time
- Moderator can challenge participants to think harder or more creatively
- Make sure the opinions expressed are real

### ➤ **To work with the "assembled group"**

- Everyone in the group should participate
- The group should discuss opinions among themselves and agree or disagree or challenge each other
- Moderator should try to balance input from shy people and more outspoken people

### ➤ **To "achieve the objectives of the client (researchers)"**

- Must cover all of the material adequately
- Must stick to allotted time for each topic
- Can add and explore interesting topics but not substitute them for the agreed-upon topics

## **Problems During Focus Groups**

(Greenbaum, 1988)

### ***Moderator Problems***

- *Generally the reverse of the characteristics of good moderators*
- **Leading rather than guiding**
- **Being too knowledgeable**
- **Trying to be a comedian/becoming the focus of the group**
- **Being a poor listener**
- **Being too rigid with the moderator guide**
- **Not relating well to the people in the group**
- **Being too naive about the subject of the focus group**
- **Focusing on individuals rather than the group**
- **Alienating a group member**

### ***Facility Problems***

- **Noise**
- **Audio/video recording**

### ***Content Problems***

- **Confusing concept**
- **Dead subject**
- **Lively subject**



## VITA

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**EDUCATION**

Master of Arts in Counselor Education (January 1991-December 1992)  
 East Carolina University, Greenville, NC

Bachelor of Social Work (August 1985-December 1989)  
 East Carolina University, Greenville, NC

**EXPERIENCE**

October 2007-  
 Present  
 John Tyler Community College  
 Midlothian, VA

***Dean of Student Services***

Responsible for the supervision, administration and leadership of student services functions. Directly supervise and evaluate administrative personnel responsible for the coordination of admissions and records, counseling services, testing services, student activities, instructional technology, and the library. Responsible for the planning, assessment, and budgetary preparation and processing of various student services operations. Oversee student judicial affairs, student recruitment, transfer articulation, tutoring, veterans' affairs, career coaches, and student orientation.

January 2006-  
 October 2007  
 John Tyler Community College  
 Midlothian, VA

***Director of Counseling and Student Success Services***

Supervised and evaluated student services personnel responsible for personal and academic counseling, career planning, special needs services, and tutoring services. Responsible for a staff of seven full-time employees and 20 part-time tutors. Coordinated freshman orientation classes. Oversaw student conduct issues.

August 2003-  
 December 2005  
 Craven Community College  
 New Bern, NC

***Director, Academic Skills Center***

Responsible for day-to-day operations of the Academic Skills Centers on New Bern and Havelock campuses. Coordinate and supervise a staff of 30 part-time tutors in seven academic labs. Recruit, interview and hire all ASC staff. Plan and implement 20 semester hours of Tutor Training. Prepare and manage annual budget of \$220,000. Provide accommodations to students with disabilities as required under Section 504 and ADA. Coordinate and train all ACA instructors

**EXPERIENCE** (continued)

October 2001-

July 2003

Lehigh Carbon Community  
College  
Schnecksville, PA***Retention Advisor***

Developed and implemented early alert referral system to identify “at-risk” students. Initiated contact with students identified by faculty, counseled students to determine needs, directed students to appropriate services, and maintained student contact to evaluate progress. Established mentoring program linking students with faculty and staff. Responsible for coordinating College Experience course, developing course syllabus, selecting course text, recruiting and training faculty, supervising faculty, and appraising course evaluations. Helped college increase fall-to-fall full-time student retention rate to 64%.

January 2001-

October 2001

Penn State University  
Fogelsville, PA***Coordinator of Placement and Internship***

Managed and maintained career services activities at PSU-Lehigh Valley campus. Provided individual career counseling and career related workshops. Assisted students with cover letter and resume writing. Administered and interpreted MBTI as a career exploration tool. Developed and fostered relationships with local business and industry. Facilitated student internship process and assisted graduating students in search of full-time employment. Coordinated on-campus recruiting with local businesses and organized on-campus career fairs.

September 1993-

December 2000

Craven Community College,  
New Bern, NC***Counselor***

Provided academic, personal and career counseling services. Advised students on curriculum choices and course selection, and assisted students with transfer planning. Assisted students with career related decisions using CHOICES, MBTI, SDS and other instruments. Conducted admissions interviews with prospective and returning students, recruited potential students, and coordinated Step-Ahead and Humanities admissions with high school counselors and students. Administered and interpreted placement tests to applicants and current students. Provided workshops of interest and established refresher workshops prior to ASSET placement testing. Supervised ECU student interns, assisted students with financial aid, and developed initial CCC career center as part of a Tech Prep grant.

February 1993-

September 1993

Wayne County Mental  
Health Center,  
Goldsboro, NC***Social Worker III/Substance Abuse Counselor***

Provided in-depth clinical assessments to clients. Constructed and implemented treatment plans, provided individual, group and family therapy, and coordinated clinical services provided by psychiatrists.

**PROFESSIONAL PRESENTATIONS AND AWARDS**

- 2009 *Implementing a Threat Assessment Team* to Virginia Community College System Council of Deans and Directors, Richmond, VA
- 2009 *Threat Assessment Teams* to Virginia Community Colleges Association, Lexington, VA
- 2008 *FERPA Guidelines* to JTCC personnel, Chester, VA
- 2006 *Why Do You Do What You Do?* to JTCC personnel, Chester, VA
- 2004 *ADA Accommodations in Higher Education* to CCC administration, faculty and staff, New Bern, NC
- 2002 Noel Levitz Retention Excellence Award for Early Alert Referral program developed at Lehigh Carbon Community College.
- 2002 *Building a Grass Roots Retention Program* to Noel-Levitz National Conference on Student Retention, Washington, DC.
- 2001 *Best Practice: Campus Wide Career Services* to PSU System-wide Career Conference, State College, PA.
- 2000 *Best Practice: Academic Refresher Workshops* to North Carolina Instructor's Conference, Greensboro, NC
- 2000 *Understanding MBTI Type in the Workplace* to CCC administration, faculty and staff, New Bern, NC
- 2000 *Differences and Prejudices* to CCC Freshman Orientation Seminar, New Bern, NC
- 1999 *Understanding MBTI Type in the Classroom* to CCC Developmental instructors, New Bern, NC
- 1999 *The Benefits of Academic Refresher Workshops Prior to Placement Testing* to National Association for Developmental Educators Conference, Boone, NC