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**SURVEY OF CLASSROOM ASSESSMENT PRACTICES OF COMMUNITY  
COLLEGE FACULTY**

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Dissertation submitted to the Faculty of the  
Marshall University  
in partial fulfillment of the  
requirements for the degree of

Doctor of Education  
in  
Curriculum and Instruction

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Huntington, West Virginia, 2016

Keywords: Authentic Assessment, Faculty Belief, Faculty Buy-In, Faculty Knowledge, Faculty  
Integration, Instructional Methods.

## **DEDICATION**

To my parents, the reason I am who I am today. You were always there celebrating my milestones and encouraging me to be the very best that I can be. You taught me to always reach for the stars, believe in God and His God given abilities within me. To always do everything with humility and to His glory. Thank you for all the sacrifices you made to give me the best life a daughter could ever ask for. Daddy, we did it. I hope as you look down from heaven, you have that huge smile of pride at this achievement.

To my siblings, relatives, family and friends, this is for you too.

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## ABSTRACT

The *Spellings Commission* (U.S. Secretary of Education Commission on the Future of Higher Education) notes that there are far too many college graduates entering the workforce without the initial employment skills and predispositions needed in a current global economy. Specific measurements of relevant learning within community colleges is therefore called for as effective assessment and instruction go hand in hand to ensure that the full range of student achievement and talent is elicited. This quantitative study was designed to address the gap in faculty assessment, and gain insights into the perceptions of WV community college faculty about their classroom assessment practices.

The major research focus of the study was to know if there were differences between faculty perception about the importance and integration of selected authentic and conventional practices. The data were distinguished by gender, years of teaching experience both inside and outside of the community college environment, and academic preparation.

The results of this study suggested that faculty are not focused on either model of assessment. However, they do have preferences in each model for specific kinds of practices that encourage the development of critical thinking skills, selections tending to be program based.

Overall, the study revealed that faculty do have a strong perception of the *importance* and *integration* of various assessment practices of student learning outcomes but may not necessarily distinguish practices as purely “authentic” or “conventional”. Authentic assessment practices that were perceived as important were highly likely to be integrated by faculty into their learning environment, whereas conventional practices that were perceived as importance were less likely to be integrated into their learning environment.

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## CHAPTER 1

### INTRODUCTION

The term assessment originated from the Latin phrase *assidere* which means “to sit down beside” (Rwanamize, 2008. p. 17). This implies a partnership relationship in which the students and instructor work together to create an environment conducive to learning. If used correctly, assessment can provide useful information about not only how the students are learning, but also about how instructors are performing in meeting academic goals. It gives students control of their learning and encourages the building of an inquiring mind. The instructor acts as a mentor, providing constant feedback and guidance to the student. The phrase “sit down beside” has been interpreted as referring more to a judgmental or fault finding process. The students’ focus is not on learning but on attaining the highest grade or being the very best or top student in the class. This form of learning does not involve the use of inquiry; in most cases, it tends to develop the practice of memorization of facts. Memorization is studying with a focus on content with very little application to the societal challenges and a lack of application of understanding to a real world situation (Pedagogy Project Report, 2009-2010).

From K-12 to Higher Education, assessment is a very important factor in the formal learning process. The problem is that even though assessment is designed to assist in student learning, it has been shown to act against learning by becoming a passive process in which the process of inquiry is lost. Assessment has been seen as serving a more punitive purpose than an assistive one. Assessment has been used in such a way that instead of creating a cooperative environment that is conducive to learning, it creates an environment in which students are very individualistic in their learning as cooperation is not encouraged. In this environment, negative

competition exists as it is a “survival for the fittest” race to excellence in learning (Pedagogy Project Report, 2009-2010).

The goal of assessment, whether traditional or authentic, is to develop students who are functional as 21<sup>st</sup> century productive citizens. In conventional (traditional) practice, the focus is on acquisition of knowledge. The curriculum drives the knowledge and the instructor imparts the knowledge in the learning process. In authentic assessment practice, the focus is on application of knowledge. Assessment drives the curriculum. The instructor is the facilitator of knowledge in the learning process. Mueller (2014) compares the two types of assessment in Table 1.

Table 1

*Comparison of Conventional (Traditional) and Authentic Assessment*

<b>CONVENTIONAL ASSESSMENT</b>	<b>AUTHENTIC ASSESSMENT</b>
Selecting a response	Performing a task
Contrived	Real-life
Recall/Recognition	Construction/Application
Teacher-structured	Student-structured
Indirect evidence	Direct evidence

Unlike traditional assessment methods where students often recall information, recognize facts, and memorize to demonstrate proficiency, authentic assessment causes students to analyze, synthesize, and apply knowledge. It is a process of growth and is more student centered, unlike traditional assessment which is more instructor centered. Authentic assessment gives an in depth view of what a student knows and can apply to real life situations. In conventional assessment,

student ability is very vague and allows for a number of errors in judgment as it is an indirect method. Conventional assessment focuses on recall or recognition of information. Conversely, in authentic assessment, students are allowed the freedom to construct their own knowledge based on present and past acquired information. This form of assessment allows for the development of individuality in students as they grow in knowledge depth (Mueller, 2014).

The “open door” mission of community colleges in the US most importantly includes the education of diverse individuals whose previous academic background and preparation may initially be ill-suited to the demands of the core work of collegiate learning (Hanzelka, 2007; Sternberg, 2008; Walker & Jehlen, 2007). Therefore, learning outcomes assessment and related faculty practices in community college settings place a distinctive demand on faculty and create program accountability for student progress and academic success to carry into the workplace (Bers, 2005).

That demand begets a pressing need for reexamining existing assessment systems and approaches in community colleges, particularly in regard to the assessment roles of community college faculty. That means not only having and performing effective assessment, but also building awareness of how such practices can elicit the full range of student talents and achievements (Snyder & Snyder, 2008).

A large number of students who enroll at community colleges are adult students, many of whom need remedial classes to satisfy the entry level expectations of post-secondary schooling. There is also an infusion of students in post-secondary education who, throughout their K-12 schooling, have been taught to focus on passing tests and have given a high priority to that need with perhaps little or no thought for life-long learning or retention (Hanzelka, 2007; Sternberg, 2008; Walker & Jehlen, 2007). Banta (2002) stated that, “assessment in higher education

typically has been associated with testing, measurement, and assigning a course grade” (p. 2). This is noted as a general practice among community college instructors when assigning grades (Palomba & Banta, 1999; Boud & Falchikov 2007; BoarerPitchford, 2010).

How much of the emphasis for using assessment to give grades may be attributed to current assessment attitudes and practices among existing community college faculty? Are community college faculty unwittingly engendering studying and learning for testing and grading? BoarerPitchford (2010) concluded that the vast majority of faculty in higher education continue to primarily assess student learning with the traditional modes of testing, notwithstanding some evidence that more authentic assessments are occasionally evident. The authors believed that the traditional mode reinforces students to be concerned with the “grade” rather than to cultivate an appreciation for “deeper” learning.

There are a number and variety of national initiatives addressing concerns about the need for effective, real life assessments related to 21<sup>st</sup> century learning and predispositions. Stakeholders in K-12, No Child Left behind (NCLB), post-secondary education, and various private and governmental educational policy institutions continue to press for and implement accountability and compliance measures (BoarerPitchford, 2010; Boud & Falchikov, 2007).

The *Spellings Commission (2006)* (U.S. Secretary of Education Commission on the Future of Higher Education), noted that there are far too many college graduates entering the workforce without the initial employment skills and predispositions needed in the current global economy. That theme is further echoed in the report of the Commission calling on community colleges to specify and measure relevant learning. Many states are now gearing up to implement more intensive accountability policies and requirements for quality assessment (Spelling, 2006).

The community colleges in Maryland are responding to the challenge by using common graded assignments to assess student outcomes in all sections of the general studies program, created by teams of faculty who design detailed assignments that specify what students are to demonstrate. Certainly, this implies kinds of assessments far beyond the conventional pencil and paper test. Additionally, faculty orientation and development are provided to full-time and adjunct faculty, the latter of whom comprise a significant segment of the community college faculty (AACC, 2014). Achieving the Dream is a national, non-profit organization whose major purpose is to enhance student achievement and progress toward community college graduation. Today its membership includes 200 + community colleges in 36 states. One of its prominent features is to press for community colleges to engage in evidence-based assessment practices to assess student learning (Achieving the Dream, 2016).

Another national assessment initiative, The Voluntary Framework for Accountability (VFA) is calling for a national system of accountability in community colleges (Dougherty, Bork, & Natow, 2009). This call is supported by the American Association of Community Colleges (AACC) which stated that community colleges are the largest sector of higher education in terms of accessibility and, therefore, contribute significantly to the quality of life for both the students and the community (AACC, 2014). The authors further believe that the existing measures for institutional effectiveness are inadequate for community colleges. It is therefore imperative that a reliable method of accountability to stakeholders concerning student learning be developed.

In a recent survey by the National Institute for Learning Outcomes Assessment (NILOA), community college administrators reported that their colleges do use a variety of assessments and approaches, such as performance and grading rubrics, licensure exams, portfolios, field

experiences and capstone projects (Nunley, Bers, & Manning, 2011). The report noted that most of these are used at the departmental level or by individual faculty, but it was not known whether these occurred systematically across the institutions. Less than one-half of those reporting indicated that assessments were not specifically related to the improvement of student learning or instructional performance (BoarerPitchford, 2010; Banta, 2002).

A question that arises is, “What percentage of community college faculty continue to use traditional modes of assessment, focused on short-term testing with recall and recognition of content, without benchmarking for improving student learning or improving their instruction?” Conversely, “Is there a large percentage of community college faculty engaged in a variety of quality assessment practices that elicit deeper learning outcomes?”

There is some evidence to show that community colleges are implementing quality assessment of student learning. At the same time there is also evidence that the traditional pencil and paper test mode is still evident among community college faculty (BoarerPitchford, 2010; Banta, 2002).

Do such trends represent the current body of community college faculty in the West Virginia Higher Education system? Are these faculties engaged in a variety of sound assessment practices within their instructional routines? Do these faculties perceive the importance of varied modes of assessment to elicit the full range of student talent and achievement?

Community colleges, unlike four year institutions, have a shorter period of time to develop essential skills in their students. Community colleges must ensure that they have a curriculum in place which encourages their faculty to employ a variety of assessment practices which engender well-prepared and thoughtful graduates, ready to go out into the workforce. In

these circumstances, time is of the essence given that faculty have a limited period of time to implement such practices.

Hemming (2000) suggested there is a possibility that some instructors may not be aware of the various kinds of quality assessment practices, or if they are aware, have not integrated these into their instructional planning and delivery. Likewise, Calveric (2010) further suggested that “Despite its seemingly obvious relation to the enhancement of instruction, a lack of training in assessment fundamentals among college faculty has been documented by researchers and may be the weak link in driving America toward improving education” (p. 4).

### **Statement of the Problem**

The purpose of this study is to measure perceptions among West Virginia community college faculty about the importance of selected traditional (conventional) and authentic assessments for quality student assessment. Additionally, it is to measure to what extent community college faculty integrate such assessments into their classroom instructional routines. A final purpose is to measure if perceptions and practices held by community college faculty are distinguished by their gender, teaching experience and academic preparation. Do novice teachers perceive the importance of assessment differently from their experienced peers? Do they integrate differing assessment practices? Finally, do experienced faculty perceive assessment to be of greater importance than their novice peers and do they integrate a variety of assessments into their instruction more extensively? The data from these outcomes will provide current and relevant information about the status of assessment practices among community college faculty in the state.



## **Research Questions**

1. What level of importance is given to selected kinds of traditional (conventional) and authentic assessment by community college faculty for the proficient assessment of student learning?
2. To what extent do community college faculty integrate selected kinds of traditional (conventional) and authentic assessment practices into their instructional routines?
3. What is the effect of community college faculty gender, teaching experience and academic preparation on their perceptions about the importance of selected assessment practices?
4. What is the effect of community college faculty gender, teaching experience and academic preparation on their perceptions about the integration of selected assessment practices?
5. What is the relationship of levels of importance and integration of selected assessment practices among community college faculty?

## **Operational Definitions**

*Adult student:* a person who is 18 years old and up and is involved in any form of learning.

*Authentic assessment (Performance-based assessment, alternate assessment):* term used to refer to performance assessment techniques that use rubrics to gauge students' progress through multiple methods of assessment such as portfolio, group assignments, and presentations.

*Content area:* specific subject area of instruction which may be the same or different from their major academic field of study.

*Traditional (Conventional) assessment method:* The historical method of assessment that primarily depends on classroom tests and quizzes.

*Instructor perception:* The level of awareness and thought by community college faculty about the effectiveness of selected assessment practices for evaluating student learning.

*Community faculty teaching experience:* refers to the number of years a faculty has taught at the community college level.

*Community college faculty degree completion:* refers to the highest level of attainment of post-secondary education.

*Gender of community college faculty:* identifies the sex of the faculty member; whether male or female.

## **Rationale**

The results will show the level of awareness by community college faculty about the range of existing conventional and authentic classroom assessment and to what extent they integrate such practices to assess student learning. Results will provide data to assess the degree to which community college faculty continue to use traditional “pencil and paper” modes of assessments geared to the grade or whether they employ a variety of assessments that tap deeper student learning and engagement. These outcomes have important training and professional development implications for pre-service preparation and in-service orientation of faculty members. Moreover, these outcomes can benefit student learning by improving how faculty assess student learning and the activities they incorporate into the learning environment

While there appears to be a fairly large research literature base surrounding various aspects of K-12 and collegiate assessment issues in the U.S., there is little empirical evidence about such issues in the community college context in West Virginia. These then become

important results to include in a growing national knowledge base about faculty and student assessment and related value added concepts in higher education. These results will also provide classroom teachers, school administrators, and curriculum supervisors with current, research-based data and information about faculty assessment perceptions and practices and those specific aspects that are and are not being implemented in classrooms. Moreover, college and university teacher preparation personnel can benefit from such results by reviewing their current curricular assessment emphases and requirements and making improvements in assessment training and preparation where applicable.

Data about potential differences between novice and experienced faculty can suggest relevant faculty in-service and orientation programming within community colleges or in regional contexts from which all faculty could benefit. In short, the significance of such results is to determine if practicing community college faculty perceive and understand a dichotomy of traditional and authentic assessments and how these may or may not undergird the implementation of effective assessment practices. It may also provide a better understanding of the status of student assessment in the classrooms of community colleges, and reveal challenges that need to be addressed, particularly in community college contexts in West Virginia.

### **Limitations**

1. The outcome variables are self-report data via survey methodology.

Faculty assessment practices are limited to those outlined on the *Community College Survey of Faculty Assessment Beliefs and Practices*.

2. The population for the investigation includes only the full-time faculty from each of the ten community colleges in West Virginia during the survey period.

### **Delimitations**

1. Data collection was accomplished by the *Community College Survey of Faculty Assessment Practices*.
2. The survey period began on October 3<sup>rd</sup> 2015 and ended on November 30<sup>th</sup> 2015.
3. The study outcome variables focused on two aspects of assessment perception: “Importance” and “Integration”.

### **Ethical considerations**

The ethical issues and considerations of voluntary participation, no harm to respondents, anonymity and confidentiality, identifying purpose and sponsor, and analysis and reporting were recognized and were addressed by the various safeguards described in the procedures section in Chapter 3 (McNamara, 1994).

### **Summary**

In summary, current research shows that issues of student assessment are in flux nationally and are being examined by a number of governmental and private reform initiatives. Historically, faculty in higher education have assessed with traditional testing, although there is evidence that faculty are changing, though slowly, to more authentic or alternative means. Whether such change is sporadic or pervasive is not known, but the likelihood is that it lies within a continuum between the two categories of assessment. Effective assessment and instruction go hand in hand to ensure that the full range of student achievement and talent is elicited. The data from this study will provide some answers about the current status of faculty assessment in the community colleges of West Virginia. Such answers may contribute to developing initiatives to improve assessment practices among its faculty, and add empirical evidence to an emerging national knowledge base.

## CHAPTER 2

### LITERATURE REVIEW

#### Introduction

The role of community colleges is to first and foremost prepare students for the working environment. Employers state that the ability to think critically is a key component of successful functioning (Burbach, Matkins & Fritz, 2004. p. 1). Research has revealed that the use of authentic assessment is crucial in the development of critical thinking skills in students. Authentic assessment is a skill that has been proven to be a desirable outcome of all instruction as it creates students who are functional in society, yet there is very little research that shows the use of authentic assessment in community colleges' instructional settings, especially for determining student course grades (Palmer, 2004).

This chapter describes the foundation for this study by reviewing literature and current research on assessment perception and practices of community college instructors. The chapter is organized into four sections: (a) an overview of the nature of assessment; (b) concepts of assessment in higher education, (c) the role of assessment in community colleges, and, (4) constructivism and grounded theory as a conceptual framework. This latter section will elaborate on the conceptual framework of constructivism and grounded theory on which this research is based.

#### Assessment Status in Higher Education

The United States has fallen behind when it comes to performance of students in higher education, slipping from first to sixteenth among students age 25 – 34 years who have some post-secondary education (Snider & Willen, 2011). This occurrence has led to an urgency to ensure students perform at the highest level academically, with the ultimate goal being for the

United States (U.S.) to return back to its former position in the global educational world. It would also ensure that students are capable of performing at the level of demand in the 21<sup>st</sup> century (Ewell, 2009b).

The *Spellings Commission Report* of 2006 stated that our past achievements in higher education have led us to be complacent in our educational goals, and the nation has failed to keep abreast with accountability of student learning and performance standards, resulting in students who are not well prepared for the workforce. The report states that even though higher education institutions have a number of achievements of which to be proud, they still need to make some reforms to be at the front of the line in educational achievements as a nation. An important reform is the assessment of student learning and performance in a manner that is verifiable, one in which the outcomes are evidence-based and point to real-life needs. The report further implied that even though the focus has not been on post-secondary education when it comes to student preparedness, the changing global workforce requirements mandate that student learning achievements be directly verifiable. Student learning should include both the relevant knowledge base and the related personal dispositions needed to work and function in a variety of social and cultural contexts (Spelling, 2006).

As the United States globally competes with nations that were once lagging behind in fields such as math and science, the call for colleges and universities to report on academic results is much louder today (Ewell, 2009a).

Assessment as a whole is termed one of the key components in the 21<sup>st</sup> century as an indicator for course development, institutional planning and design of improvement directives. Assessment can be seen as “A closed system of process as it takes new information and builds

and refines itself; it is termed as closed as it never ends. It is a continuous process” (Fife, 2012. p.1)

### **Concept of Assessment in Higher Education**

Assessment in higher education has long been used for improvement and for accountability. Improvement is for internal use and demonstrates how well knowledge is being imparted to students. Assessment also provides for external evaluation as it demonstrates student accountability, thus, how well institutions are developing students to effectively function in the 21<sup>st</sup> century. The question that now exists when one speaks about assessment is no longer “Why the need for assessment?”, but “Which type of assessment?” and “Who is in control of the assessment?” A small number of faculty have embraced the authentic assessment idea, seeing it as a way to improve student learning. Most of these faculty are in majors that have a structured curriculum in which performance -based assessment is integrated into their curriculum (Ewell, 2009b).

Formerly, institutional quality was measured by its alumni activity, graduation rates, and academic quality of students prior to their enrollment at the institution. Data were collected from student and alumni feedback. There is now a shift towards the need for all institutions to ensure certain qualities are cultivated in graduates from their institutions such as: “Creativity, intellectual integrity, wisdom, tolerance, esthetic sensibility, personal self –discover, psychological well-being and refinement of taste, conduct and manners” (p. 31). These factors are not easily measurable via the usual practice of the use of standardized tests (McPhearson & Schapiro, 2007).

Benjamin and Klein (2006) believed that there is no unified agreement concerning assessment and its appropriate use in higher education. In fact, there seems to be some confusion

between the function of assessment and its relationship to accountability in higher education. They further state that even though the assessment practices may be similar, their uses or purposes will often be dissimilar. They believed that even though states are increasingly developing assessment systems that are related to institutional accountability; indirect measures as evidence of student learning have been met by great resistance by faculty who see accountability as an administrative function. They state that faculty see assessment objectives for the purpose of institutional accountability, whereas at the faculty level, assessment is for the purpose of educational improvement. The issue therefore that has to be addressed is the need for a unified agreement concerning assessment and its use in higher education.

There is further argument that even though assessment practices across institutions may be similar, their use or purpose will often be dissimilar. Assessment use or purpose can be two-fold: for internal use, directed towards improvement of student learning, as a faculty performance standard tool, or for external use, where it acts as an indicator for institutional accountability to the stakeholders. There is also the belief that assessment in higher education has not been focused on knowing what students have learned, but to know whether students are ready for their course work or to be successful in the next level. Consequently, the focus has not been on documenting the institution's value for student learning, knowledge and acquisition of skills, but on learning outcomes that are transferrable to other institutions and are not faculty developed (Benjamin & Klein, 2006; Havnes & McDowell, 2008).

An accountability movement has been gaining momentum in the United States and worldwide with pressures from federal and state governments, accrediting bodies, parents, and the general public. The demand on institutions is to demonstrate their worth through evidence of students' progress and success. The teaching and learning process is also changing which has



influenced the manner in which students are assessed, based on the societal needs such as the ability to think critically (Freeman & Kochran, 2012; Benjamin & Klein, 2006; Flaherty, 2013).

There are several factors that have brought the focus on assessment to the forefront. These stem from sources such as accreditation bodies now wanting convincing assessment evidence from institutions that verify learning and positive educational outcomes. Budget constraints have also created an environment where assessment and accountability have now become factors for funds allotment with unified standards now being the norm instead of institutions designing their accountability expectations (Ewell, 2009a). Funding to institutions is now tied to this concept of assessment which has to be evidence-based. Since most institutions rely on instructors to assess student learning to fulfill the mission of the institutions, a unified form of assessment method that develops the expected skills is required. Varied activities such as portfolios, written essays, research, and group work may differ but the desired outcomes should be the same.

Shavelson and Huang in 2003 examined the effects of open-ended measures on student learning in higher education. The framework was based on the belief that what is learned and at what level of their educational journey it transfers depends on the aptitude and abilities the students bring with them from their prior education (in and out of school) and their natural endowment. From their observations, they demonstrated that knowledge and one's abilities are interdependent. This observation is also supported by Klein, et. al., 2005. p. 258.

The subjects were 1365 students selected from 14 diverse colleges. The measures used for correlation comparison were SAT scores, GRE writing scores, performance tasks, critical thinking tests, college GPAs, participant task evaluation forms, and the *National Survey of Student Engagement (NSSE)*. ACT scores were correlated to SAT scores using the standard

conversion table. GRE prompts and a two-person team with experience graded critical thinking questions in the type of scoring, and a four-person team scored the 90-minute performance tasks. All other multiple choice questions were machine graded using a created standard key. The results showed a significant difference ( $p < 0.05$ ), with a correlation of 0.95 increase or a decrease of their SAT scores from their freshman to their senior performance scores in courses where the faculty used activities geared towards what students should be able to perform after they graduate. (Klein, et. al., 2005). The study was repeated in 2005 by *National Center for Educational Statistics* using subjects from 45 institutions and the results showed an even greater difference with a standard deviation of 1.6 ( $p < 0.05$ ). This effect was not observed when traditional multiple choice testing was used (Benjamin & Klein, 2006). The results therefore demonstrate that open-ended measures are a reliable and valid measure of cognitive outcomes of student learning in higher education.

The current assessment movement began in the mid-1980s and was met with tensions that are still in existence today. These factors arose from issues such as a lack of clear understanding of the role of assessment in the classroom, its need and use, a lack of proper training on assessment practices, a lack of a unified view of the different purposes of assessment and the increase in work load by instructors. In the last two decades, the purpose of assessment has shifted to alleviate some of these tensions. These shifts include the legitimacy of assessment with the demand by policy makers for qualitative and transparent information, and evidence of student learning and institutional performance. A similar focus has been targeted by external accrediting bodies at the institutional and programmatic levels. The assessment movement has led to the need for collection of assessment data on student learning outcomes and the development of effective assessment instruments and approaches. The focus is to decide what to

assess and how to organize assessment tasks and strategies, collections of data and communication of results. This focus is where assessment and accountability start to interface (Ewell, 2009a).

In all institutions, assessment is focused on either improvement or accountability. The former is usually a faculty function to ascertain how student learning outcomes, either in a course, program or institution, have developed into an internal process for self-improvement. The latter reason is usually for the purpose of accountability based on student development of skills, competencies and dispositions to be successful and function in the 21<sup>st</sup> century environment. Its intent is focused towards an external audience (Paul & Elder, 2005; Ewell, 2009b).

Human capital is important for the functionality of any institution of higher learning in all of the 50 States. Consequently, state and local leaders will always be concerned with how student learning is measured within the classroom. Faculty and their institutions will have to work together with the ultimate goal of meeting the demands for accountability by state and local leaders. Faculty, assumed to be the experts in student learning, need to decide on the best practices to improve student learning (Benjamin & Klein, 2006).

### **Role of Assessment in Community Colleges**

Community colleges enroll almost half of the U.S. undergraduate students and serve as a gateway to higher education and the middle class population. However, the student success rate in community colleges is unacceptably low, and students' preparedness for the job market is inadequate as they lack the necessary skills necessary to be successful. The U.S. now ranks 16<sup>th</sup> worldwide in college completion for 23 – 34 year olds, yet job census shows that by the year 2018, two – thirds of jobs will require some form of post-secondary education (Bumphus, 2012).

All higher education involves sorting of students in order to determine their placement into courses of differing content difficulty. There is an existing controversy concerning the role of assessment in community colleges. Is its purpose to discourage incoming students, especially minorities or disadvantaged students, or is its purpose to track students' college aspirations as a means of facilitating their persistence and success (Syed, Azmitia, & Cooper, 2011)? During the 1970s, the idea of "students' right to fail" played a key role in community colleges which then incurred a high percentage of student failure and dropout rates. This led to a change in legislative mandates for community colleges which negated the former idea of "students right to fail". The focus now encourages the implementation of an organizational structure in which student assessment and placement is now in close connection to support services with the ultimate goal of reducing the percentage of dropouts and failures (Hughes & Scott-Clayton, 2011).

A survey carried out by the National Community College Council for Research and Planning (NCCCRP) and the National Institute for Learning Outcomes Assessment (NILOA), and reported by the American Association of Community Colleges, using 101 researchers and 30 states concluded that assessment in community colleges has not been focused on matriculation to the next level readiness. The data on institutional use of student learning outcomes revealed that only about 16% used the results to determine student readiness for upper-division course work, and only 39% used results to encourage adoption of best practices in teaching, learning and assessment from other institutions. Forty-four percent used the results to determine student readiness for college –level course work (Hutchings, 2010; Nunley, Bers & Manning, 2011).

Various characteristics define community colleges, such as their goal to prepare students to meet the demands of the workforce, continuing education, training, and basic educational

needs for transfer to other institutions. There is also an observed diversity in student population in relation to academic preparedness and student demographics. Community colleges commonly are comprised of a large multicultural student population with diverse social and economic backgrounds. This is because community colleges have an open door policy and accept students from all academic levels, many of whom may not be prepared for post-secondary educations. The challenge faced is how to educate students while still maintaining the necessary academic standards. (Hughes and Scott-Clayton, 2011; Levin, 2000; Twombly 2001; Twombly & Townsend 2008).

Alkeaid (2007) similarly determined that the goals of the community college include preparing graduates with the necessary knowledge and skills to transfer to the university and for working in the marketplace. Community colleges also have an open-door admissions policy and lower-division courses influence faculty instructional practices toward workforce readiness. These types of instructional frames include creating an awareness in students for learning to learn, personal relevance and social impact and outcomes of topics taught, and student interactive relations with their colleagues (Bayer & Braxton, 1998; Bird, Crumpton, Ozan & Williams, 2012)

According to Twombly and Townsend (2008), community college faculties are not required to have formal training in teaching, although teaching experience may be preferred if a candidate possesses it in the hiring process. Schuetz (2008) and Jacoby (2006) report that part-time faculty comprise approximately two-thirds of all community college faculty members. In 2010, a study found that out of 59% of part time faculty in higher education, 41% were in two year institutions (American Federation of Teachers, 2010).

Twombly and Townsend (2008) further state that community college instructors typically come from a variety of local businesses and industries and lack formal training in teaching and instructional methods. They are generally hired for their professional competence rather than pedagogical training, and few institutions provide or require professional development activities for part-time faculty. Keim and Biletzky (1999) found that the extensive use of part-time faculty may result in the reliance on traditional instructional methods. In contrast, Banachowski (1996) argued that research is inconclusive to support claims that part-time instructors are less effective and use traditional instructional methods more so than full-time instructors. This observation is argued by Mundhenk (2004), who states that because community colleges hire proportionally more part time faculty than full-time faculty, there would be lesser likelihood of utilizing assessment practices that are not tied directly to grading.

Instructors at community colleges, like other higher education institutions, are given much autonomy in their teaching: thus, collectively effective teaching in which faculty share and interact with each other is often overlooked. The over-reliance on adjunct faculty may affect student learning because they are often isolated from their full-time colleagues and may not have the training in assessment or be involved in the expected changes to student learning accountability (Benjamin, 2002; Twombly & Townsend. 2008). Similarly, Lei (2008) found that although a variety of assessment techniques are utilized by community college faculty, their use differs between full-time and part-time faculty. Lombardi and Oblinger (2008) asserted that including new forms of assessment that develop higher order thinking is more effective than high exam scores on multiple choice questions, which seems to be the norm especially among part-time faculty.

Twombly (2001) explained that small class sizes allow instructors to provide personalized attention to students at the community college level. Community college instructors differ from instructors at four-year colleges and universities because everything they do is connected to teaching. Payne, Herndon, McWaine, and Major (2002) concurred that community college faculty spend more time teaching students than faculty at four-year colleges. Moreover, Warren (2006) states that because faculty at the community college are not required to conduct research, it allows for more time to focus on instruction and interacting with students. However, they often have to teach basic skills to meet the diverse needs of the student population.

Dongbin, Twombly, and Wolf-Wendel (2008) explained that community college instructors typically have a high degree of instructional autonomy, including how they will determine grades. In order to effectively measure student learning, a set of universal assessment practices needs to guide community college teaching (Lei, 2008). Brown and Glasner (1999) estimated that 80% of instructors use assessment techniques that are in the form of exams, essays, and reports.

Lei (2008) asserted the need to study the factors associated with the instructional and assessment practices used by community college faculty related to faculty status (full time vs. part time) and faculty level of academic achievement (degree earned). Integrating instructional practices that promote critical thinking skills is important for future community college graduates (Hirose, 1992; King & Kitchener, 1994; Meyers, 1986). Weimer (2002) argued that instructors need to re-evaluate how they assign grades to ensure that what they emphasize promotes competency of the learning objectives; thus, assessment should serve the purpose of both learning and grading.

Applefield, Huber and Moallem (2001) emphasized the incorporation of constructivism theory and related methods about learning rather than teaching; therefore, instructors can incorporate strategies that promote active learning, knowledge construction, and social learning processes. According to Evans (2000), a student-centered classroom is one in which the instructor spends less time lecturing and more time actively engaging students in the learning process. Prestidge and Glaser (2000) explained that student-centered learning environments, like that described by Evans (2000), can promote the construction of knowledge through discussion, research, and group participation.

Henson (2003) suggested that a learner-centered education focuses on an effective learning environment that supports individuals in the learning process. Henson (2003) added that learner-centered instructors can promote learning by situating students in the center of learning and engaging them in activities that are challenging and meaningful. Dierick and Dochy (2001) asserted that when students work collaboratively as active participants they reflect on prior experience to construct new knowledge. Thus, critical thinking is promoted through social interaction. King (2002) explained that peer interaction promotes critical thinking skills because of the high level cognitive processing that it demands. Alkeaid (2007) maintained that collaborative learning is a method of instruction in which students work together on various activities to enhance understanding.

Vega and Tayler (2005) indicated that the learner-centered classroom emphasizes a democratic learning environment where the role of the instructor is that of a facilitator of learning rather than a transmitter of knowledge. The authors added that small group learning practices are associated with learner-centered classrooms because group activities are utilized frequently to allow students to take control of the learning experience. Gulikers, Bastiaens and



Kirschner (2004) argued that assessment practices should include collaboration such as social processes that are important in the context of real-life situations; thus, assessment activities should provide students with the opportunity to work together.

Common assessment methods used in community colleges, even though these do serve a purpose, have been shown to be “lacking in providing enough information to determine the appropriate course of action that will lead to academic progress and success for the vast range of underprepared students”. “...students arrive in community colleges underprepared in many ways, and not just academically” (Hughes & Scott-Clayton, 2011. p. 20). There has not been a focus on assessment of student learning or quality of student learning, but, instead, assessment has been viewed by faculty as serving more of an administrative function rather than as an indicator of what is happening in the classrooms.

More than half of students entering community colleges take placement exams that assess and determine their level of college preparedness and are placed in at least one remedial class. There is lack of evidence to show the positive effects of these remedial courses. The reasons given for this lack of evidence are either questionable implementation of remedial courses or the validity of the assessment process for placement of students (Hughes & Scott-Clayton, 2011). Use of multiple measures when assessing student learning results in better outcomes when compared to the use of a single measure (Hughes & Scott-Clayton, 2011).

A study sponsored by the American Association of Community Colleges was done to understand what motivates faculty and administrators to participate and support learning outcomes assessment. The study was performed using a survey administered by the National Community College Council for Research and Planning (NCCCRP) distributed to 101 individual researchers from 30 states across all six accrediting regions, and a second survey conducted by

the National Institute for Learning Outcomes Assessment sent to 544 chief academic officers at regional accredited, associate degree-granting institutions in the United States (NILOA, 2009). Results from the two surveys revealed that faculty participation on assessment of student learning falls below 50% in areas of accountability of student learning. Forty-four percent stated it was used to improve student learning; 38% for continuous quest for quality; 36% to guarantee that students are learning; and 32% as an institutional culture. These results are significantly lower when compared to faculty perceptions on administrative focus with 86% based on program accreditation, 63% as a requirement by regional accrediting agency and 51% for internal quest to improve programs. Pressure from administrators gave a value of 49% (Nunley, Bers & Manning, 2011).

There is also a lack of faculty member enthusiasm when it comes to participating in student assessment and accountability practices. The reason given for this is because community college faculty are involved in not only their instructional duties but other institutional demands with no compensation for involvement in assessment practices which they find to be very demanding (Glenn, D., 2011).

There are community college institutions that have mastered the concept of assessment such as the community colleges of Baltimore that used a “common grades assignments” method to assess student writing and other general skills. Another example is Miami Dade College whose faculty have come together and defined 10 learning goals to be assessed for all students at all levels (Glenn, 2011).

Whether learning takes place in the physical or virtual environment, the ability to measure learning helps institutions gauge whether or not students are achieving their educational goals. If learning can be gauged at the student level, then the data can be aggregated to gauge

programmatic and institutional assessment. These data can in turn be used to determine or prioritize institutional development strategies. Even though assessment practices may differ from one course to another or from one institution to another, assessment does operate from a common understanding (Wilson & Browning, 2004; Bers, 2005).

Assessment data are not only beneficial to instructors and administrators, but also provide student ownership of the learning process by the constant feedback, helping to determine the next steps necessary for achievement of the academic goals (Wilson & Browning, 2004).

Assessment can, therefore, be regarded as a tool kit used to meet or solve a particular problem. The problem has to be identified and specific pathways must be designed before the assessment tools and devices can be implemented. Without a contextualized and specific purpose for the assessment need, inclusive of a specific problem to be solved, assessment by itself becomes meaningless.

The purposes of assessment in community colleges are still as important, but the focus within each purpose has changed in accordance with our changing societal needs. Assessment practices also need to evolve in order to meet its intended purposes (Wilson & Browning, 2004).

An assessment gap exists not only between institutions but also within the same institution. The issues are often implementation, deciding on the desired end results, and how one gets to it (Wilson & Browning, 2004). In order for the stakeholders to easily understand the assessment data as presented and their implications, there has to be a unified assessment framework, whether institutional or statewide, which has to be constructed from the onset with established vocabulary terms (Wilson & Browning, 2004). At the student level, assessment serves to keep students abreast of their performance and give them ownership of their academic learning or journey as they focus on areas that need improvement (Wilson & Browning, 2004).

If community colleges want to build a learning centered culture within their institutions and be accountable to their stakeholders, they need to ask themselves two questions: “Does this action improve and expand learning?” and “How do we know this action improves and expands learning?” (Somerville, 2011. p. 16). Even though most of the community colleges have been successful in establishing effective student learning outcomes, they have not been as effective when it comes to the assessment of student learning (Somerville, 2011). The Wingspread group report of 1993 states that there is a disjoint between societal expectations from higher education and what students are receiving, especially at the undergraduate level. This outcry resulted in the focus on student learning accountability in higher education. The learning outcomes expected at the end of a student’s experience in a higher education institution fall under the categories of knowledge, skills and the ability to function (Mien, Filip & Eduardo, 2003; Somerville, 2011.).

The focus of most community college reports has been on the experiences of their best students rather than of their typical students. There has been a movement by university and community college leaders for the focus to shift to evidence based student learning and a revamping of the methods previously used to measure educational quality as those methods have been found to be flawed in their needed function. The movement from instruction to learning necessitates an integration of assessment in evaluating not only student learning, but institutional effectiveness as well. The focus on assessment by accrediting bodies as a measure of institutional accountability, is especially important as community colleges enroll a large number of undergraduate students (Somerville, 2011). Assessment practices are also not well suited for community college populations in which the assessment focus is on capstone courses and does not sample students who drop out or transfer to higher institutions (Glenn, 2011).

The challenge community colleges must fulfill while safeguarding their fundamental mission is to imagine a new future, while ensuring the success of their students, institution and nation as a whole. In order to fulfill this mission, community colleges will have to redesign how their existing institutions assess not only their mission, but most importantly their student educational experiences. The call by the American Association of Community colleges is to embrace the “Three Rs”: redesign students’ educational experiences; reinvent institutional roles; and reset the system to create incentives for students and institutional success (Bumphus, 2012. p. 17; Nunley, Bers & Manning, 2011).

### **Conventional (Traditional) versus Authentic Assessment**

According to Banta (2002), assessment in higher education typically has been associated with testing, measurement, and assigning a course grade. Buhagiar (2007) suggested that the purpose of assessment has changed from being used as an objective measure of achievement to being used as a method to promote learning including higher order thinking. Dierick and Dochy (2001) asserted that assessment can serve the purpose of showing students their strengths and weaknesses, and also to guide students toward achieving the learning goals. This is also supported by McDowell (2002), who stated that assessment is no longer viewed only as a means to determine measures of achievement, but also as a tool for learning. In effect, teaching, learning and assessment go hand in hand.

***Conventional method of assessment:*** Tanner (2001) stressed that traditional assessment places excessive importance on passing a test to determine course grades as the consequence of applying knowledge. Tanner (2001) further explained that traditional assessments are designed to compare students’ performance against one another, in contrast to authentic assessment that compares students’ performance against learning task standards.

Traditional assessment evaluates whether students can recognize factual information that was learned from context. Diaz-Lefebvre (2006) noted that traditional assessment practice such as multiple choice exams, promote memorization and regurgitation of facts with little value placed on understanding and applying the information.

Paul (2004) added that when teachers emphasize recall of memorized factual information, students will not be intellectually challenged. He states that the problem is not that instructors do not believe in the importance of developing critical thinking skills in their classroom, but that instructors do not know how to incorporate it into their teaching experiences. He further argued that traditional assessment promotes the idea that one correct answer is more important than habits of mind. He quoted from a study done in 1972 using a sample of 40 000 faculty members in which 97% stated that critical thinking is the most important goal in today's undergraduate education. Further, 73% stated that student's ability to assess their own work was of primary importance, but only 9% could enumerate or state criteria for assessing student critical thinking ability. According to Lombardi and Oblinger (2008), the use of traditional assessment can delay the development of independent thinking. Hirose (1992) concurred that the heavy use of traditional assessment practices does not promote critical thinking.

Gulikers, Bastiaens, and Kirschner (2004) explained that traditional assessment consists primarily of simple knowledge acquisition requiring low level cognitive skills. According to Snyder & Snyder (2008), instructional strategies that promote memorization do not support critical thinking. Studies indicate that community college instructors typically use traditional instructional delivery methods (Goubeaud & Yan, 2004; Walloch, 2006). According to Boud and Falchikov (2007), instructors use traditional assessment as a means of providing students with a

course grade. Boud and Falchikov (2007) suggested that multiple-choice exams dominate because they are easily and reliably scored.

Weimer (2002) suggested that grades can effectively be measured by traditional assessment whereas the measurement of higher order thinking through authentic assessment is much more complicated. According to Boud and Falchikov (2007), assessment should involve measuring the breadth and depth of a student's knowledge as well as the extent to which this knowledge can be applied. They also stated that the use of traditional methods continues to play an important role in the assessment practices of faculty. Tanner (2001) concurred that traditional methods of assessment make it possible to assess students' understanding of a great deal of information; thus, using traditional assessment continues to have value in capturing the depth of knowledge.

Backes and Brown (2009) explained that traditional exams are used as a method to determine the basic knowledge level of students pertaining to the course learning objectives and as a method to assign course grades. McConnell, Steer, and Owens (2003) asserted that multiple-choice exams can be efficiently graded; however, they are ineffective in promoting a deep understanding of the course concepts. According to Morris (2001), when authentic assessment is utilized, grades are not the result of competition; instead, students work together following established criteria.

***Authentic assessment:*** At the heart of authentic assessment is the engagement of the student in active construction of learning with realistic, meaningful and relevant learning activities that elicit independent, higher order thinking, problem solving and application. Authentic assessment, unlike the conventional (traditional assessment) method, is a task-based assessment where students give responses that are constructively based. It also helps both students and instructors recognize deficiencies, report and

take steps to address the deficiencies with the ultimate goal of implementing improvement practices, therefore creating accountability for student learning through evidence-based demonstration of knowledge (Ewell, 2009b).

Authentic assessment is also referred to as: (a) *performance –based assessment*, where students are asked to demonstrate their knowledge by performing tasks; (b) *alternate assessment* or an alternate to the traditional form of assessment; or (c) *direct assessment* which gives more meaningful or reliable evidence of not only what knowledge the students have acquired, but also how they will use it. Authentic assessment develops critical thinking skills, problem solving skills, collaborative skills, personal development, and a more holistic approach to learning where students have developed skills necessary to function in the 21<sup>st</sup> century. Authentic assessment simulates real life situations where students are asked to demonstrate proficiency and understanding based on performance rather than on selection of choices (Mueller 2014).

According to Goubeaud and Yan (2004), authentic assessments are consistent with constructivist, inquiry-based teaching methods. Buhagiar (2007) explained that authentic assessment is designed to promote thinking and learning because students actively construct meaning throughout the process. Lutz and Huitt (2004) emphasized that the development of meaning is more significant than the attainment of a large base of knowledge that is easily forgotten. BoarerPitchford (2010) pointed out that authentic assessment represents the constructive nature of learning by providing the opportunity for students to engage in tasks that demonstrate what they have learned. Marquardt and Waddill (2004) added that learning is more likely to transfer to real life problem solving when authentic and relevant problems are used. Diaz-Lefebvre (2006) asserted that students understand something learned to the degree to which they can apply the information to a new situation.



Pierce and Kalkman (2003) explained that classroom techniques that involve cooperative learning such as group work, including authentic assessment tasks, promote the active engagement of all students. Goubeaud and Yan (2004) concurred that authentic assessment requires students to actively integrate their knowledge to solve complex problems and is consistent with constructivist ideas of learning. Likewise, Harland (2003) claimed that learning is best facilitated through the use of authentic activities in an environment that promotes enquiry and autonomy. Henry (2003) argued that students build understanding through active interaction with their environment by student-centered inquiry and by integrating old and new knowledge together.

In authentic assessment, assessment of mastery involves more than being able to answer questions as is done in traditional assessment methods. The assessment method usually involves application to life's experiences or hands-on activities and will take longer than the normal testing time. Prestidge and Glaser (2000) asserted that authentic assessment is a teaching practice that allows students to move beyond the "artificial" problems that are connected with traditional assessment methods. Dierick and Dochy (2001) added that students find tasks such as projects, group exercises, and portfolios to be interesting, meaningful, challenging, and engaging.

According to Gronlund and Waugh (2009), the use of authentic assessment moves beyond traditional methods of rote memorization by providing students with an opportunity to construct their own responses through activities such as individual or group projects, written assignments such as journals, essays, or reports, and oral presentations. Morris (2001) added that instructors who use authentic assessment should strive to make tasks realistic and relevant because the goal of authentic assessment is for students to employ higher-level thinking while demonstrating their knowledge as it pertains to a specific topic.

A study at a Dutch university sampled 210 first year students to gain more insight into students' preferences and perceptions of assessment practices when different assessment formats were used. Over a 7-week period, students engaged in three categories of activities for 2 hours, twice a week. In the first category, they were divided into groups of not more than 19 students and subjected to different assessment practices, guided by a tutor. In the second category, students were placed in larger practical classes of 38 students, and in the final category, they were enrolled in large class lectures. Assessment was done immediately after each session by means of a written exam with a combination of multiple choice and essay questions. The Assessment Preference Inventory (API) was also administered to determine the assessment preference of each student. Scores were reported with a range of 2:00 to 4:00. Data were analyzed by multivariate analysis of variances (MANOVAs), and a test of significance was set using a Bonferroni adjustment (0.025). The following research questions were addressed: (a) Which assessment preferences do students have? To answer this question, students were orally asked about their preferences for the different assessment tasks they were exposed to. The results indicated that students leaned more towards written tests in which they were allowed to use supportive materials such as notes and books, inclusive of papers and projects. Oral tests and portfolios were not preferred methods.

When questioned about: (a) Preference for cognitive processes to be assessed. Students indicated a preference for reproducing, comprehending, problem solving, explaining, drawing conclusions, critical thinking and applying. They did not indicate a preference for activities that involved evaluating others' solutions or opinions, scientific investigation, providing of examples, and comparing different concepts. (b) How did students perceive the traditional assessment? The results indicate that there is a distinction between students' preferences and their perception

of assessment. They preferred the traditional form of assessment (multiple choice questions mean = 24.01; SD 6.69 versus open-ended questions = 12.28; SD = 3.93). These results yielded a significant difference in performance for those who were involved in cognitive type activities ( $F(2, 208) = 5.25, p < 0.01, \eta^2=0.05$ ) compared to those in the traditional  $F(2, 208) = 2.31, p = 0.10, \eta^2 = 0.02$ ). (c) How are students' preferences related to assessment results? Multivariate analysis of variance (MANOVAS) was used to evaluate the relationship between students' preference of the different assessment methods used. Results only showed significant differences among the three levels of preference for the written assessment (0.95 at  $p < 0.05$ ) (d) How are students' perceptions and assessment results related? Students were divided into three groups: applying than remembering ( $N = 65; 40, \%$ ), remembering than applying ( $N = 36; 22, \%$ ), and both applying and remembering ( $N=62; 38\%$ ). The results obtained indicated that students with matching perceptions scored higher than those with the misperception. The authors reasoned that a large number selected traditional methods because these were less time consuming, and that they were accustomed to their use (Watering, Gijbels, Dochy, & Rijt, 2008. p. 652 - 655).

Tanner (2001) stated that authentic assessment is time consuming as instructors must identify learning competencies and develop assessment activities and grading rubrics. Researching assessment practices, Frazier (2007) found that teachers lack classroom assessment skills and need assistance in learning how to use classroom assessment practices. There is no known study on the extent to which community college instructors utilize authentic assessment to base the course grade (Palmer, 2004).

An important question to address would be what issues confront college instructors when faced with the challenges and pressures for initiating new approaches, such as authentic assessment and related tasks for students. Holloway (2003) stated that when new innovations are

implemented and there seems to be lack of success in the fulfillment of their purpose, in most cases, it is not the innovation that is the issue but the individual educators who respond to the innovation. The educators know of the innovation, but do not understand its implications, how it will affect them, nor they do not have the tools that are necessary for them to be able to participate in the implementation. The author has outlined several stages of concern about implementing teaching innovations, beginning with an awareness of the innovation and information about its operation, to understanding how it will impact student learning, and finally to its actual integration. Regarding the interest by community college faculty in the integration of authentic assessment, these stages would seem to have relevance for perseverance and in-service orientation and development.

*Shift in trends:* Studies have indicated that there is a shift in faculty transitioning towards a performance based rather than a summative based assessment. Williams (2013) surveyed a large assortment of public and private colleges and universities in the state of Colorado to determine the influence of 12 institutional conditions for increasing faculty engagement with Learning Outcomes Assessment. Results indicated that faculty are transitioning from the traditional mode of summative-based assessment to a more formative assessment method.

In a study on assessment practices, Walloch (2006) found that multiple choice testing remains the most frequently used method of student assessment in nursing courses and carries the largest impact on the calculation of students' grades. Buhagiar (2007) and Neuby (2010) concurred that traditional tests are the most widely used tool in assigning grades.

Brookhart (1993) acknowledged that instructors have autonomy in determining what assessment method to use to assess student learning and in assigning the final course grade. According to Angelo and Cross (1993), formative assessment is utilized to promote the

application of course concepts by students and for instructors to evaluate whether students are understanding course concepts.

Goubeaud and Yan (2004) found that faculty outside the field of education rely more on traditional teaching and assessment practices. In another study, Lei (2008) discovered that full-time instructors and doctorate instructors used diverse assessment practices compared to adjunct instructors who used significantly more objective exams. Shmidt (2010) reported that conditions enforced on adjunct faculties and a lack of inclusion in assessment and teaching strategy trainings have created an environment where adjuncts resort to assessment practices that are less time consuming and easier to grade. Gulikers, Bastiaens and Kirschner (2004) found that instruction and assessment should be aligned in the context of real-life situations in order to promote higher order thinking and competency among students.

McConnell, Steer and Owens (2003) discovered that students involved in a class that incorporated inquiry-based, active learning methods outperformed students who were given the same exam but only received traditional lecture style instruction. Learner-centered teaching is a method of instruction that engages students in the learning process by promoting a variety of active learning techniques (McCarthy & Anderson, 2000). Vega and Tayler (2005) explained that involving students in the learning process improves their level of participation and increases the retention of their learning more than if they had experienced traditional transmission of factual knowledge.

Dey and Hurtado (2000) supported the previous statement with a report from a faculty survey on teaching, learning and assessment. The survey was initiated from the University of Michigan in 2001 for the National Center for Post-Secondary improvement. It was administered to 43 full-time faculty concerning the level of agreement about students in a course, using a

Likert scale categorized as: agree strongly = 4; somewhat agree = 3; disagree somewhat = 2; strongly disagree = 1, and the mean and percentage scores were reported on the level of agreement about students in the course. In all, 11 faculty completed and returned the surveys. The results indicated that: students that have a better grasp of concepts when they discuss concepts with peers = 3.20; that they understand complexity of topics better after exchanging ideas with peers = 3.30; that they want more feedback than grades and exam provide = 3.09; that they learn more when discussions and questions are kept to a minimum = 1.50; and that they can communicate what they learn better through methods outside of formal assessment and tests = 3.09. These results indicate that students' attitude towards learning was higher in an interactive learning environment with peers. Rushton (2005) added that collaborative learning with the teacher as facilitator is an important strategy to promote learning in the classroom.

### **Constructivism and Grounded Theory as a Conceptual Framework**

This research study is based on the conceptual framework of constructivism and grounded theory. Constructivism is a learning theory that encourages students to continually reflect on their experiences and understanding. It is the belief that the student reconstructs knowledge acquired for understanding rather than just absorbing the material presented. It seeks to create an environment where the learner integrates new ideas with past experiences in order to construct his own understanding (Stone, 2004).

Constructivism proposes a learning environment that is student centered and activity based, in an environment where learning is not isolated from one's experiences and needs (Henson, 2003; Lambert 2002; Lorsbach & Tobin, 1997; Perera & Morgan, 2010). It stresses an individualistic approach to the full development of the student in which assessment focuses on how students apply knowledge rather than how it is presented (Hewitt, 2006; Joyce, Weil, &

Calhoun, 2009). Furthermore, students come to the learning environment with individual self-identities. A person's self-identity is influenced by the different experiences encountered, beliefs about self, potential, and ultimately affects performance in any learning environment. "Thus, learners are responsible for building their own knowledge and understanding. The world and reality are personal constructions wherein new experiences and knowledge are integrated with the learner's prior knowledge" (Stone, 2004, p.3).

A constructivist environment involves reconstructing and rediscovering self-identity (Hass, 1977). The influence of personal qualities (what we are) and assumed roles (how we see ourselves) must be factored in. The instructor must therefore ensure that the learning environment creates change to the student's self-identity in such a way that it promotes learning and retention of material (Forster, 2006). Stone (2004) further argued that "the central figure responsible for producing change is the teacher" (p. 9). The students are encouraged to be independent learners with the teacher serving the role of a guide as they develop metacognitive skills. The learning environment should therefore involve activities that resemble reality and offer guidance that can be used to seek solutions to actual observations which may be experiential and observational (Lorsbach & Tobin, 1997; Woolfork, 2007).

Cabrera and La Nasa (2002) stated that "students learn best when the instructor's teaching style matches their learning preferences; mismatches, on the other hand, lessened this learning" (p. 7). The instructor has to not only meet the student's interest and learning needs, but also deconstruct knowledge and the student's cultural assumptions, all of which are influenced by the material presented and the instructor presentation (Hewitt, 2006). Constructivism helps instructors focus on how students learn (Lorsbach & Tobin, 1997). The instructor is able to see the evidence of the outcome of learning through a partnership between the instructor and the

student (Hewitt, 2006). Authentic assessment with its use of rubrics is an effective example of how a constructivist instructional model can be performed. It is a way in which students are encouraged to use higher order thinking to promote development of critical thinking skills (Applefield, Huber, & Moallem, 2001).

Grounded theory is a form of research in which the data collected drive the conclusions. It is a form of research where results are grounded in the emerging data, the results of which are then used to solve the problem of interest. It is type of research that is powerful when studying behavior in a particular area (Hernandez, 2010; Hernandez & Andrews, 2012; Glaser, 2011). In grounded theory, everything is based on data. The data are used to form the hypothesis rather than starting with the hypothesis. It is a form of research that is termed as an inquiry about the unknown. The key components of grounded theory are fitness of the study, relevance, workability and modifiability. The study has to address something that is of concern to the participants and has to be flexible enough to allow introduction of new data (Hamilton (2011)). The main goal in grounded theory studies is to understand the meaning behind human behavior.

Grounded theory is also based on the belief that humans are active rather than passive agents and thus are continuously changing based on the environment in which they find themselves. The nature of their experiences can therefore be continually evolving as they actively try to shape their world. It places an emphasis on change and the process of change, inclusive of the variability and complexity of life and takes into account the inter-relationships among conditions, meaning, and actions. Grounded theory differs from other research processes in two main ways: first, its main goal is generation of a theory from emerging data, unlike other forms of research which test existing theories; and second, its outcome differs in that it favors an inductive approach where the data generated are used to construct and test a hypothesis to



explain the trends observed. In contrast, deductive research tests a given hypothesis and the results support or disprove the hypothesis (Walden University, n.d.).

Grounded theory begins with an area of interest, rather than a theory and then carries out the research to determine what emerges from the data. It is a research method that is most effective when doing research on a topic about which little is known or one in which, even though there have been a number of research studies, no conclusive theory has been formulated. It is formative or exploratory research that can then lead to a formation of a theory instead of the usual research based on previous or follow-up studies.

An advantage of grounded theory is that the results are valid and are very context specific, detailed and very tightly connected to the data. The results gathered and conclusions drawn are also a novelty as they are not based on any pre-existing theory and, thus, can easily lead to innovative discoveries or designs. They also offer very simple descriptions to explain what may be a complex issue (Walden University, n.d.).

## **Summary**

The review was organized with studies on assessment conducted between 1993 and 2014. These investigations included various types of research formats such as survey methodology, interviews, and experimental studies. The major variables examined, included qualitative and quantitative outcomes, post-secondary standardized tests, college GPAs, performance tasks, critical thinking questions, task evaluation forms, and the National Survey of Student Engagement (NSSE) results. The subjects in the studies ranged from students to chief academic officers, and were selected by random and convenience sampling methods. The sample sizes ranged from 16 to 40, 000 participants (Dey & Hurtado, 2000; Paul, 2004; Klein et al., 2005;

Benjamin and Klein, 2006; Walloch, 2006; Tan, 2006; Watering, Gijbels, Dochy, & Rijt, 2008; Haywood, 2009; Nunley, Bers, & Manning, 2011, Williams, 2013.

The foundation for this study is based on findings documented by Boud and Falchikov, (2007) on assessment needs and practices in higher education; Knight, (2006), on the purpose of assessment studied in the UK on employer needs from graduates; and finally by Seger, Dochy, and Cascaller (2003) on the idea of formative assessment versus summative assessment.

Boud and Falchikov (2007) summarized the role of assessment as a factor that drives positive change and improvement. The authors stated that even though assessment has been discussed for some time, human beings are resistant to change, especially changes that may have unknown consequences. There is also an unwillingness to look at assessment for fear of what may be revealed. The challenge to its effective implementation has been the ability to change mindsets of the stakeholders and the assessment environment. Knight (2006) concurs that there can be no improvement of assessment practiced until there is a clear understanding of the purpose and role of assessment, and an understanding of the implications of assessment. The author stated that only assessed factors are appreciated as their use and effects in the learning environment have been demonstrated.

Most of the extensive studies on faculty and assessment and its effects on not only student learning, but employer satisfaction have been carried out in the United Kingdom (UK), Netherlands and Australia (Klein et al., 2005; Benjamin & Klein, 2006; Tan, 2006; Watering, Gijbels, Dochy, & Rijt, 2008). For example, Tan (2006) investigated faculty perceptions of student self-assessment among 16 academics from 3 metropolitan universities in New South Wales, based on 12 disciplines. His studies revealed that there exists a dilemma among teachers on how to balance the need to assign students sufficient power for self-assessment, while still

retaining sufficient power to regulate the self-assessment outcomes. This study, though, focused on faculty perceptions of effectiveness of student self-assessment, and did not address faculty perceptions and practices of student self -assessment as a tool in the learning environment.

Haywood, et. al. (2009) performed a qualitative study that surveyed 3, 335 faculty members across 46 institutions about student engagement. They noted an absence of evidence of faculty perceptions of institutional participation in assessment or the connection of these perceptions to faculty participation in assessment activities. Their study was guided mainly by the research question addressing how faculty perception of their institutions' involvement in assessment related to their involvement in assessment activities in their courses. This study too did not address the relationship between the faculty perceptions and practices of assessment in their respective institutions.

Assessment is important as it focusses on the learning process, and is an indicator of how well the students will succeed in the next level, what they will be able to perform and where they still have challenges that need to be addressed. Assessment, if performed correctly, directs learning and focuses on student's growth to be successful citizens. Authentic assessment is different from the traditional method of assigning grades for the purpose of assigning pass or fail labels. The traditional method is a mere indication of acquisition of facts, without a deeper understanding of the student's ability to use the information to solve real life situation. Learning cannot be determined based on what students know at a particular period and time. It should be an indication of how well students are able to use their knowledge at the next level and therefore, as an indicator for progression and forward growth, ensuring graduates are prepared for the transition to other institutions and also for the workforce (Boud & Falchikov, 2007).

Segers, Dochy, and Cascallar (2003) reported on the value of assessment as a tool to assess student growth in the learning environment, especially if administered as a tool before, during, and after the course. They argued that student behavior and student learning are very much influenced by the type of assessment incorporated into the learning environment. This form of formative assessment, inclusive of feedback, is very important in any learning environment as it is an indication of the growth process, especially during the earlier stages when metacognitive abilities are being developed. Once metacognition is developed, feedback can be reduced as the students then have acquired the capabilities of self-generating feedback or internal feedback, what we may refer to as self-assessment, which can occur during or after completion of any assigned task. Summative assessment also does play an important role, as it is used for selection and certification and not for supporting and sustaining learning as does formative assessment.

The need for accountability for student learning is increasingly being stressed, and is moving faster than the assessment evolution (Boud & Falchikov 2007). The need for assessment of student learning has become a mandatory requirement in today's educational system, especially in higher education where students are being prepared to be productive citizens. The challenge is for instructors to be well versed on the principles of assessment in order to implement effective assessment practices. The focus should be the design of teaching goals and the connection between each goal and the assessment tool. Instructors need to understand that assessment is a tool to determine if the students have met the desired goals (Gardiner, 2002). There is a need for graduates to not only have mastered disciplinary skills but also generic skills such as team-work, communication, and time management. These are skills noted to be necessary for success in the work place. Undergraduate programs should therefore include

training in abstract thinking (ability to theorize, use of equations, problem solving), systems thinking (seeing parts in context of a whole), experimentation (intuition and analytical abilities) and collaboration (communication and team-working skills) (Knight, 2006, p. 3).

Though there has been extensive research on assessment in higher education, the focus has been concentrated on the practice itself, and not on the types of assessment practices and the alignment of these practices. Very little, if any, research has been done on faculty practices and perceptions of assessment, particularly for comparing their knowledge and practice of traditional versus authentic assessment. The need for this information is even more important in today's society with the focus on community colleges and their focus on preparing students for the work force, especially technical fields, or for transfer to other institutions of higher learning.

A lack of research exists on the types of assessment and grading practices utilized by faculty in two year institutions (Goubeaud & Yan, 2004). The methods of assessment are varied and depend on what is being assessed. No matter what the method may be, one has to ensure that it is not only valid, meaning it is assessing what the goal required explicitly, but also a reliable method, one in which the results attained can be used with a high degree of accuracy to determine student learning or be used for improvement of learning (Gardiner, 2002).

This study is designed to fill the gap on faculty assessment, and to provide insights into faculty perceptions and practices of assessment in the learning environment. The results of this study will add to the discussion on assessment in higher education institutions, thus providing insights about the effectiveness of assessing student learning. Accordingly, it may also determine if faculty have a clear understanding of true assessment, if they practice it, and, if not, what are the challenges that may act as a barrier to assessment implementation.

## **CHAPTER 3**

### **METHODS**

#### **Purpose**

The purpose of the study was to determine perceptions among community college faculty about the importance of selected conventional and authentic assessments for quality student assessment and the extent to which community college faculty integrate authentic assessments into instruction. The study also considered whether results are distinguished by gender, faculty teaching experience, and completion of academic degrees. This chapter describes the research methods and the related sections that were planned for the study, detailing research design, subject selection, instrument development, procedural events and anticipated data analysis techniques.

#### **Design**

The research design for the investigation was a single group cross-section quantitative survey technique with purposeful selection of all full-time community college faculty in West Virginia. It was structured to obtain self-reported data regarding the current status of student assessment techniques among full-time community college faculty in West Virginia. The dependent variable measured perceptions of community college faculty about the importance and integration of selected conventional and authentic kinds of student assessment practices. Those outcomes were further analyzed in regard to demographic variables, including years of teaching experience, levels of degrees and academic preparation, content teaching field and level of training completed regarding student assessment practices.

## Subjects (Population).

The population for this survey consisted of all West Virginia community college full-time faculty in all 10 community colleges in West Virginia. According to the faculty database from the West Virginia Higher Education Policy Commission (HEPC) website ([www.wvhpec.org/](http://www.wvhpec.org/)), and based on the most recent census data (2013), there were 502 full-time community college faculty in West Virginia. By design, the focus was on full-time faculty (rather than part-time) as they have a vested interest in their institutions and are the ones who teach a majority of coursework within their respective course offerings. The numbers of faculty were distributed variably across institutions as noted in Table 2.

Table 2

### *Distribution of Full-Time Faculty in West Virginia Community Colleges*

Institution	Location	Faculty#
Blue Ridge Community & Technical College	Martinsburg	38
Bridge-Valley Community and Technical College*	Charleston	73
Eastern WV Community & Technical College	Moorefield	3
Mountwest Community & Technical College	Huntington	55
New River Community & Technical College	Beckley	39
Pierpont Community and Technical College	Fairmont	62
Southern Community and Technical College	Mt. Gay-Shamrock	80
WV Northern Community and Technical College	Wheeling	62
West Virginia University at Parkersburg	Parkersburg	90

\*Note: Bridgemont (Montgomery) and Kanahwa Valley (Charleston) Community & Technical Colleges were merged to form Bridge-Valley Community and Technical College

All identified full-time faculty were invited via email to participate in the survey. An appropriate number of participants was estimated using a sample size calculator to identify the minimum numbers needed to be representative of the population (Wimmer & Dominick, 2008.) The level of confidence was set at 95% with a  $p$  level of .05 to define a margin of error. Thus the number of surveys needing to be returned was estimated to be 216 considering the target population of 508. However, because the population was distinguished by the several demographic variables noted, a greater sample size was sought to effect reasonable distribution of subjects in those categories, as much as feasible.

### **Survey Instrument**

The survey instrument used for the investigation is the *Community College Faculty Survey of Assessment Beliefs and Practices* (Appendix C). Its Likert items were primarily adapted from the “*Conceptions of Assessment III Abridged Survey*” tool used by Sarah B. Calveric in her dissertation study entitled “*Elementary Teachers’ Assessment Beliefs and Practices*,” submitted in 1997 at Virginia Commonwealth University (Calveric, 2010). The tool was modified to address the particular outcomes related to the objectives of this investigation.

The *Community College Faculty Survey of Assessment Beliefs and Practices* is divided into sections A, B and C. Section A (Demographics) focuses on data about the faculty including gender, years of teaching experience at a community college level, and faculty academic preparedness. Section B consists of 26 Likert style items numerically keyed to a 5-point ranking system designed to obtain instructor perceptions about the level of importance and implementation of selected assessment. Finally, Section C provides an opportunity for the respondents to write in specific assessment practices that they believe to be important and useful but which were not specifically noted in the survey.



## **Reliability**

The Calveric survey, noted previously, was adopted from a model originated by Brown (*Teacher Conceptions of Assessment, Abridged Survey, 2006*) which consisted of 50 Likert items. Brown established reliability for the survey at 0.81, among a group of 235 New Zealand primary school teachers working with students ages 10 -13. About one-third worked on schools of low socio-economic status (SES), and over one quarter in high socio-economic status schools (Brown & Lake, 2006). Subsequently, Calveric adopted Brown's survey, but reduced it to a set of 27 items, keyed to a 5-point Likert system. These items, like Brown's, were statements about various concepts of assessment for learning, certification, school accountability and relevance to the purposes of a study. In essence, Calveric based the reliability of her scale on Brown's data and analysis and the fact that it had been validated previously. Permission was obtained from Sarah Calveric to use the survey in this study with the noted modifications (Appendix A).

Reliability estimates are best obtained on the affected participants in a given research study. However, beforehand, pilots of an instrument on like samples is useful for an approximation of the estimate for the affected sample. For this investigation a draft version of the *Community College Faculty Survey of Assessment Beliefs and Practices* was evaluated in two pilot peer groups: a group of current classroom teachers and a small group of doctoral candidates in a curriculum and instruction program.

The instructions described a statement about the purpose of the research and its related variables and participants were directed to complete the survey as though they were a subject in an investigation. Following the return of the surveys, an item analysis was conducted to determine the internal consistency and reliability of the scale items using Cronbach's Alpha for these two groups. The respective results were 0.796 for "level of Importance" and 0.795 for

“level of Integration”, which were considered to be satisfactory for use in an exploratory study. In addition to these quantitative measures, scale items were examined in regard to composition, clarity, and relevance to current student assessment practices. These reviews resulted in many revisions to the original items, including removal and addition for some items.

## **Procedures**

The research prospectus was approved by both the candidate’s doctoral committee and Marshall University Institutional Research Board (IRB) (Appendix D). Thereafter, authorization was sought from each community college to conduct the study at the respective institutions. A cover letter explaining the purpose of the study and the survey was sent to all faculty members using their institutional email system. Faculty emails and personal email, initially obtained from the Higher Education Policy Commission (HEPC) central office, were stored and monitored by the researcher, thus assuring anonymity and confidentiality of the respondents.

The cover letter also described the provisions for insuring anonymity and confidentiality which was accomplished by exercising anonymity and confidentiality in the administering of the survey. It was also noted that participation was completely voluntary and one could opt out at any time if desired. Should they elect to opt out, their email addresses were automatically deleted from the participant list in Survey Monkey. On completion of the survey, the participants were directed to a page thanking them for their participation and offering the opportunity to see the results of the study.

The email also contained a link to the web-based faculty survey and a password (or pin number) to enter the survey. Two follow-up emails were sent to increase the response rates at two and four week intervals after the start of the survey. All information collected during the

course of the study was kept confidential, and presented in aggregated form in order to ensure that no participant or identifiable characteristics were evident in the study.

The web-based survey was conducted via Survey-Monkey, a software program offered online. This program has a list of management tools in which the researcher can track responses by their email addresses and thus be selective for the follow-up emails. The program also has an option to turn on SSL (Secure Sockets Layers) to utilize data encryption and provide data protection, which further ensures participant anonymity (Mitchell & Jolly, 2007). Precautions were taken to ensure the survey did not include sensitive questions that could cause discomfort to the respondent, thus eliminating the possibility of any social or emotional harm.

The researcher assumed the responsibility to report problems, issues, challenges, and all results, no matter the outcome. The responses to the survey were recorded, exported into a spreadsheet, and transferred to a computer-based, statistical software package for in-depth analysis.

### **Research Questions and Data Analysis**

Quantitative data related to the research questions noted below were analyzed using a combination of descriptive and inferential statistical techniques. These are noted in Table 3 with the associated research questions.

The specific descriptive and inferential statistics applied were related modules from Statistical Packages for the Social Sciences (SPSS), Version 20. These included Chi-Square Test of Independence, and Kruskal-Wallis Test of Summed Ranks. Descriptive data included mean scores, mean ranks, standard deviations and Z-scores. Cross-tabulations of frequency data were numerically and graphically organized and data summarized per the perceptions distinguished by the various demographic variables.

The Kruskal-Wallace Test is the non-parametric version of One-Way ANOVA. It is applied when there is an independent variable with two or more levels and an ordinal ranked dependent variable. The Chi-square test was used to determine whether the trends observed are what could be expected to occur by chance. It also demonstrated if there is any relationship between two sets of data.

Table 3

*Research Questions and Related Data Analyses Techniques*

Research Question	Statistics	Data Analysis
1. What level of importance is given to selected kinds of conventional and authentic assessments by community college faculty for the proficient assessment of student learning?	Descriptive Inferential	Means Scores t-test for Independent samples
2. To what extent do community college faculty integrate selected kinds of conventional and authentic assessments into their instructional routines?	Descriptive Inferential	Mean Scores t-test for Independent samples
3. What is the effect of community college faculty gender, teaching experience, and academic preparation on their perceptions about the importance of selected assessment	Descriptive Inferential	Mean scores Kruskal Wallace

practices?

4. What is the effect of community college faculty, gender, teaching experience, and academic preparation on their perception about the integration of selected assessment practices?	Descriptive Inferential	Mean Scores Kruskal Wallace
5. What is the relationship of levels of importance and integration of selected assessment practices among community college faculty?	Inferential	Pearson's r

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The data used to answer Research Question 1 was collected from section B (level of importance column) of the research survey. Research Question 2 was addressed by using data from section B of the survey tool (integration of practice column). For Research Question 3, a comparison was made for the categorical variables in section A (Demographics), related to the data obtained from section B of the survey (level of importance column). Research Question 4 was addressed by analyzing data collected from section A, in relation to the survey results collected from section B (integration of practice column). Finally, Research Question 5 was analyzed by comparing data collected from the levels of importance and integration of practice columns.

## CHAPTER 4

### RESULTS

#### Overview

The purpose of this study was to determine the perceptions among West Virginia community college faculty about the importance of selected *authentic* and *conventional* (traditional) assessments practices for quality student assessment (Appendix E). Additionally, it sought to determine to what extent community college faculty integrate such assessments into their classroom instructional routines. Another purpose was to determine if such perceptions and practices held by community college faculty were related to gender, teaching experience, and academic preparation.

Finally, did experienced faculty perceive assessment to be of greater importance than their novice peers and did they integrate a variety of assessments into their instruction more extensively? The measurements from these responses provided current and relevant information about the status of assessment practices among community college faculty in the state of WV.

These data and related descriptive information were collected by a survey instrument developed and adapted by the researcher. The survey instrument, *Community College Faculty Survey of Assessment Beliefs and Practices* is divided into sections A, B and C. Section A (Demographics) focuses on data about the faculty including gender, faculty preparedness, and years of teaching experience at a community college level. Section B consisted of 26 Likert style items numerically keyed to a 5-point ranking system designed to obtain instructor perceptions about the level of *importance* and implementation of selected assessment practices. Finally, Section C provided an opportunity for the respondents to write in specific assessment

practices that they believe to be important and useful but which were not specifically noted in the survey (Appendix C).

The web-based survey was conducted via Survey-Monkey, a software program offered online. Precautions were taken to ensure that the survey did not include sensitive questions that could cause discomfort, social or emotional harm to the respondents by the initial distribution of the draft version of the survey to peers for evaluation of the questions. The researcher assumed the responsibility to report problems, issues, challenges, and all results, no matter the outcome. The responses to the survey were recorded, exported into a spreadsheet, and transferred to a computer-based, statistical software package for in-depth analysis (SPSS, Version 20).

To ensure its reliability, a pilot study of the instrument on like samples was obtained. The reliability of the draft version of the *Community College Faculty Survey of Assessment Beliefs and Practices* was evaluated in two pilot peer groups: a group of classroom teachers and a small group of doctoral candidates in the Curriculum and Instruction program at Marshall University. Instructions were provided about the purpose of the research and its related variables. The participants were then directed to complete the survey as though they were a subject in an investigation. Following the return of the surveys from those who participated, an item analysis was conducted to determine the internal consistency and reliability of the scale items using Cronbach's Alpha for these two groups. The respective results were 0.766 for "Level of *Importance*" and 0.744 for "Level of *Integration*", which were considered to be satisfactory for use in an exploratory study. In addition to these quantitative measures, scale items were examined in regard to composition, clarity, and relevance to current student assessment practices. These reviews resulted in many revisions to the original items, including removal and

addition for some items, which resulted in a final Cronbach's Alpha value of 0.801 for both levels. This final version of the survey tool was the version used in this study.

**Population and Sample**

The original population for this survey consisted of 551 West Virginia community college full-time faculty. Because the West Virginia Higher Education Policy Commission (HEPC) data base did not have an updated list of faculty, faculty contacts were obtained from each institutional directory. The study involved faculty from eight community colleges as summarized in Table 4. WV has nine community colleges; one institution did not participate despite all attempts to contact the faculty. Contact was made to the human resources department of each participating community college to obtain the actual count of full-time and part-time faculty employed at the time of the survey administration, Fall 2015 (Table 4).

Table 4

*WV Community Colleges Faculty Count and Percent Survey Participation*

<b>Institution</b>	<b>Full-time Faculty (FT)</b>	<b>Adjunct Faculty</b>	<b>% Full-time Faculty participation</b>
Community College A	59	62	76% (45)
Community College B	68	72	46% (31)
Community College C	74	89	22% (16)
Community College D	53	78	6% (13)
Community College E	11	60	1% (1)
Community College F	103	104	38% (37)
Community College G	67	85	30% (45)



Community College H	81	110	19% (24)
TOTAL	516	660	41% (212)

The main focus of the study considered the results from the full-time faculty, as they have an invested interest in their institutions and teach a majority of course hours per semester as part of their individual faculty load. The assumption was that the full-time faculty results represented the general trend of practice within each respective community college.

To encourage participation in the study, and to maximize responses to the online survey, an introductory letter with an embedded survey link was forwarded to all faculty through Microsoft Outlook. Individuals from each institution were also contacted to encourage participation from faculty within the institutions. The online survey was conducted from October 3, 2015, until November 30, 2015, with weekly reminders. The reminders were extended to 4 weeks as it was observed that there was a marked increase in responses after each reminder (Table 5).

Table 5

*Summary of Return Rate per Reminder*

October 3 <sup>rd</sup> 2015 (Survey distributed)	551 surveys sent out, 89 bounced and 9 opted out (462)
October 20 <sup>th</sup> (1 <sup>st</sup> reminder)	495 survey reminders, 9 opted out (486)
October 28 <sup>th</sup> (2 <sup>nd</sup> reminder)	360 survey reminders sent out
November 4 <sup>th</sup> (3 <sup>rd</sup> reminder)	332 survey reminders sent out
November 11 <sup>th</sup> (4 <sup>th</sup> reminder)	312 survey reminders sent out
November 18 <sup>th</sup> (5 <sup>th</sup> reminder)	300 survey reminders sent out
November 13 <sup>th</sup> (6 <sup>th</sup> and final reminder)	285 survey reminders sent out

**Survey Responses.** A total of 551 faculty email addresses were inputted into the Survey Monkey website and sent out to all listed full-time faculty in all 9 community colleges in WV. Of the 551 surveys distributed, 89 were blocked by the institution, and no response occurred even after appealing to administrative personnel to distribute the surveys. A total of 462 potential participants were identified and received a survey.

The returns of the surveys from faculty varied between community colleges with an overall total of 187 respondents, or 40.5% from the remaining eight community colleges. This percentage of returns, although small, was consistent with previous research results for returns of online surveys which indicated about a one-third return rate for email surveys that do not include multimodal methods (Fincham 2008; Nulty 2008).

**Missing Data.** Several of the 187 responses for the online survey had missing data which resulted in their exclusion from calculation to answer the descriptive and inferential questions. If more than 10% of the data is missing, based on the recommendation of Bryman and Cramer (1997), the responses were not included. Eight participant responses were omitted as they fell into this category. All other surveys with missing entries, but less than 10% were included in the calculations.

The remainder of the chapter consists of four major sections which include a presentation of demographic descriptive statistics, the differential and inferential analysis of the five research question, the open ended responses, and an overall summary of the research results.

Following are the results from the demographic information and survey responses which are presented within the framework from the research questions.

### **Descriptive Demographic Data**

Random distribution of respondents based on department affiliation showed a higher participatory rate from faculty in the Health Science Department (32%). Three departments, Humanities, Social and Behavioral Sciences, Mathematics and Natural Sciences, and Technical Studies and Workforce each had return rates of about 18%. There was very little participation from Business and Computer Science (1%) and Communication Departments (0.5%) (Table 6).

Table 6

#### *Respondents per Academic Departments*

<b>Academic Departments</b>	<b>n</b>	<b>% response of participants</b>
Business and Computer Sciences	18	9.63
Communications	9	4.81
Health Sciences	60	32.09
Humanities, Social and Behavioral Sciences	33	17.65
Mathematics and natural Sciences	33	17.65
Technical Studies and Workforce Education	34	18.18
<b>TOTAL</b>	<b>187</b>	

Gender distribution was unequal with more females participating (69%) as compared to males (31%). The age range demographics had a normal distribution, with a percentage observed between the age range of 51 to 65 years (56%). There was a return of about 27% for faculty aged between 36 to 50 years. Those who were 35 years and younger and those of 66 years had a combined return rate of 16%. A large majority of the respondents had a master's degree or

higher academic preparation (75%). Twenty-five percent (25%) had less than a master's degree (Table 7).

Table 7

*Academic Preparation*

<b>Academic Degrees</b>	<b>n</b>	<b>% response of participants</b>
Less than a bachelor's degree	19	10.16
Bachelor's degree	18	9.63
Bachelor's degree+	10	5.35
Master's degree	44	23.53
Master's degree+	60	32.09
Doctorate degree	37	19.79
<b>TOTAL</b>	<b>187</b>	

About 52% of the full-time faculty had between 11 and 20 years of teaching experience at the community college and about 31% had between 4 and 10 years. Thirty-five (19%) of the faculty had less than three years of experience. Of these faculty, 137 had taught in other institutions of post-secondary education apart from at the community college level, while 55 reported no other collegiate teaching experience.

**Descriptive and Inferential Survey data**

For each of the research questions that follow, descriptive data (mean scores) were applied to compare respondents' perceptions. Inferentially, these data were analyzed by the

Kruskal Wallis test at an alpha level of  $p < 0.05$ . Results for the top (highest) and bottom (lowest) three rankings will be emphasized in the discussion.

**Research Question 1:**

What level of *importance* is given to selected kinds of *authentic* and *conventional (traditional)* assessment by community college faculty for the proficient assessment of student learning?

*Performance* assessment activities were ranked as the most important *authentic* assessment tools, with a mean of 4.65 out of 5.0; second in ranking was *use of test items that require higher order thinking* (4.35); and providing *grading rubrics to the student beforehand* (4.11). Ranked as least important was *publisher created rubrics* (mean of 3.04), followed closely by *student exhibits* (mean of 3.05), and *student evaluation grading* (3.26). Overall, these data are summarized in Table 8.

Table 8

*Perception of Importance for Authentic Assessments*

<b>Assessment Practices</b>	<b>n</b>	<b>mean</b>	<b>Std. deviation</b>
Performance	178	4.65	0.554
Test items-higher order thinking	178	4.35	0.691
Grading rubrics provided to students beforehand	176	4.11	0.792
Instructor created rubric	178	3.97	0.813
Grading conference	178	3.76	0.916
Oral presentation	177	3.62	0.993
Portfolio	176	3.58	1.061
Teacher made tests with varied question types	176	3.55	0.985

Teacher made essay question	175	3.53	0.902
Term paper	176	3.43	1.045
Student self-evaluation/grading	178	3.26	0.945
Student exhibits	176	3.05	1.004
Publishers' rubric	178	3.04	1.024
Valid N (Listwise)	173		

For *conventional* assessment practice, mean scores, out of 5.0, for *licensure exams* (4.36) were ranked as the most important, followed by *projects* (4.28), and *small groups* (4.07). Ranked as least important were *normal curve grading* (2.06), followed by *publishers' tests* (3.16), and *high stakes tests* (3.24). Overall, these data are summarized in Table 9. It could be expected that *licensure exams* would be a relevant tool in community college settings with programs that require certification of clients, e.g. nursing, medical assistant, and welding technicians. *Projects* would seem to go hand in hand with verifying student competencies. *Small groups activities* seemed out of context in this situation given the amount of instructional time that is required to organize and manage these activities.

Table 9

*Perceptions of Importance for Conventional (traditional) Assessment*

<b>Assessment Practice</b>	<b>n</b>	<b>mean</b>	<b>Std. deviation</b>
Licensure	174	4.36	0.961
Projects	177	4.28	0.767
Small groups	177	4.07	0.816

In class discussions and grading	177	3.96	0.821
Specialized skills	177	3.84	0.948
Department/program tests	176	3.80	1.097
Standards based	178	3.79	0.850
Pre and Posttests	177	3.71	0.855
Teacher multiple choice	173	3.55	0.948
Weekly quizzes	175	3.36	0.929
High stakes	178	3.24	1.161
Publishers' test	175	3.16	0.999
Normal curve grading	176	2.60	1.142
Valid N (Listwise)	165		

Overall, the mean score of *authentic* assessment was 3.55 with a standard deviation of 0.51, whereas the mean score of *conventional* assessment was 3.46 with a standard deviation value of 0.46. As noted, faculty perceived a moderate importance for these practices. A t-test for Independent Samples comparing these means indicated no significant difference in perception about the *importance* of either *authentic* or *conventional* assessment practices. Faculty do have preferences, as noted, for specific kinds of assessment tools and it is assumed that these would be used more frequently than the tools noted for lesser importance. Interestingly, the least favored practices centered on “testing” directed by external sources.

## Research Question 2:

To what extent do community college faculty *integrate* selected kinds of *authentic* and *conventional (traditional)* assessment practices into their instructional routines? Was there a commonality between the results for *importance* and the *integration* of the same practices?

Not surprising, the mean score for *performance* (4.23) assessment activities was ranked as the most integrated assessment. These kinds of “real” activities directly engage the student in accomplishing the related achievements and are verifiable behaviorally. Relatedly, when using classroom tests, instructors would likely prefer the use of *test items that require higher order thinking* (mean of 4.12), and when appropriate, the use of *instructor created rubrics* (mean of 3.86) to specify expected performances.

Meanwhile, mean score values indicated that they are unlikely to use student *exhibits* (2.44), or publisher *created rubrics* (2.63), and *student self-evaluation grading* (2.76) because these sources are variable in authenticity. Surprisingly, respondents reported that *portfolios* (2.52) were among the least integrated type of assessment, although one might intuitively think that the use of “portfolios” would be a preferred or relevant “authentic” tool, especially in community colleges. Possibly the use of “portfolios” may result in great variability from student to student and are built more around their interests, needs, and abilities, consequently, difficult to reliably evaluate, not to mention the time needed to incubate and develop. Additionally, they have a strong sense of “self-evaluation”. The results of these data are summarized in Table 10.



Table 10

*Mean Scores for Integration of Authentic Assessment*

<b>Authentic Practices</b>	<b>n</b>	<b>Ranked by Mean</b>	<b>Std. deviation</b>
Performance	162	4.23	0.806
Test Items higher order thinking	163	4.12	0.837
Instructor created rubrics	162	3.86	0.975
Grading or scoring rubrics provided before hand	164	3.75	1.185
Teacher made tests with varied question types	165	3.56	1.206
Grading conference	161	3.26	1.075
Teacher made essay questions	164	3.19	1.191
Oral presentations	162	3.14	1.033
Term paper	165	3.13	1.262
Portfolio	160	2.92	1.298
Student self-evaluation/grading	163	2.76	1.041
Publishers' created rubric	163	2.63	1.133
Student exhibits	163	2.44	1.089
Valid N (Listwise)	152		

As noted, faculty perceived a common preference for integrating *authentic* and *conventional* tools. Some of the higher ranking mean scores for conventional practices were *in*

*class discussions and questionings* (3.82), *projects* (3.67), and *standards based grading* (3.61).

The high mean score ranking of *projects* (3.67) and *small groups* (3.58) didn't seem to be a logical set, given that the assessment of the two latter practices would result in a good deal of variability. It was not surprising that the *in class discussions and questioning* (3.82) ranked high as historically it has been a favored conventional practice of teachers and students. It was somewhat surprising that *high stakes testing* (2.81) was not a preferred integration given the kinds of external compliances (assessment) that are associated with community colleges.

The lowest ranking mean scores occurred for *publisher's tests* (2.96); *high stakes testing* (2.81); and *normal curve grading* (2.52). It is unlikely that the student population in a given classroom would align and be evaluated within the probabilities associated with the standard deviations for a normal Bell curve. They would be more likely to employ *standards based evaluation* (3.61) in departments with certification-needs programs.

*Publishers' tests* (2.96) are usually textbook based and generally structured with selected-response items. Often, this format fails to tap into higher order thinking skills and usually requires students to "recognize" or "select" a response from a given set.

These results are shown in Table 11.

Table 11

*Mean Scores for Integration of Conventional (Traditional) Assessment*

<b>Conventional Practices</b>	<b>n</b>	<b>Ranked by mean</b>	<b>Std. Deviation</b>
In class discussion and questionings	165	3.82	1.053
Projects	163	3.67	0.909
Standards based grading	163	3.61	1.051

Teacher made multiple choice	165	3.60	1.204
Small groups	161	3.58	0.932
Weekly quizzes	163	3.31	1.193
Pre and post tests	163	3.28	1.051
Specialized skills	163	3.17	1.253
Dept/program tests	164	3.04	1.508
Licensure exams	163	2.99	1.683
Publishers' tests	164	2.96	1.213
High stakes	166	2.81	1.249
Normal curve grading	163	2.52	1.254
Valid N (Listwise)	153		

Overall, faculty indicated no significant preference for integrating either authentic and conventional evaluative tools. The means, out of 5.0, for *integration* of practice for *authentic* assessments was 3.31 with a standard deviation of 0.49, whereas the mean for the *conventional* assessment practices was 3.34 with a standard deviation value of 0.34. A t-test for Independent Samples comparing the means for *integration* of assessment practices indicated no significance for *authentic* and *conventional* assessment practices among faculty.

### **Research Question 3:**

What is the effect of community college faculty gender, teaching experience, and academic preparation, on their perceptions about the importance of selected assessment practices?

## Gender

The distribution for gender was 69% female (129) and 31% males (58). These results showed an overall mean score, out of 3.52 out of 5.0 for females, and 3.77 out of 5.0 for males regarding to the influence of gender on the overall importance of selected practices. However, there were specific practices that showed some commonality (agreement), and some where differences were more pronounced. Specifically, both groups showed a high preference for performance based practices such as *projects*, and *small groups*, averaging between 4.2 and 4.4, with an overall mean score of 4.3. These were the highest and most consistent ratings among male and female faculty. On the low side, but still somewhat consistent, were *high stakes testing*, *self-evaluation grading*, and *normal curve grading*, averaging 2.93 and 3.07, with an overall mean of 3.0.

Inferential analysis using Kruskal Wallis indicated that females indicated significant differences in ranking of the following as important: *student self-evaluations/grading* (p 0.04), *test items involving higher order thinking* (p 0.011), *instructor created rubrics* (p 0.00), *grading conferences* (p 0.004), *use of portfolios* (p 0.006), *teacher made essay test questions* (p 0.035), *student exhibits* (p 0.001), and *grading rubrics provided to students beforehand* (p 0.000). Female also demonstrated a differences in perception of the importance for conventional assessment practices for *licensure exams* (p 0.022); and *in class discussions and questions* (p 0.014).

## Teaching Experience

Overall, these data showed a very similar pattern of response to the previous variable of gender. Once again, *performance assessments* were the top-rated assessments (mean 4.65); along with *licensure exams* (mean 4.36); and *higher order thinking* (mean 4.35). Lower ratings

occurred for *publisher created rubrics and tests* (mean 3.04); *student exhibits* (mean 3.05); and *student self-evaluation of grading* (mean 3.26), with the lowest being *normal curve grading* (mean 2.60). The pattern again indicated that faculty gave greater importance to assessments that cause the students to perform and to think above knowledge levels. At the same time, they gave little or very modest importance to assessments that are not in their “control” e.g. *publishers’ tests and rubrics, normal curve grading and student self-evaluation*.

However, inferential analysis using Kruskal Wallace revealed that there were exceptions. In terms of conventional assessment practices, *teacher made multiple choice tests* (p 0.029) and *weekly quizzes* (p 0.018) showed significant differences in perception of importance among faculty who had taught for more than 20 years at the community college level. These faculties also showed significant perception differences for *student exhibits* (p 0.011) as an important authentic assessment tool. Similarly, faculty who had taught at institutions of higher learning outside of the community college for 11 years or more also demonstrated significant differences in perception of importance for *oral presentations* (p 0.023) as important *authentic* assessment tool. *High stakes testing* was the only conventional assessment practice that showed a difference in perception of importance and it was demonstrated among faculty who had taught outside of the community college level for 11 years or more (Appendix F).

#### Academic preparation

Overall, these data showed a very similar pattern of response to the previous variables (gender and teaching experience). Academic preparation was categorized by faculty who had less than a Bachelor’s degree, a Bachelor’s degree, a Bachelor’s degree plus, a Master’s degree, a Master’s degree plus, and a Doctoral degree. The results showed mean scores of 3.57, 3.76, 3.56, 3.61, and 3.54 respectively for each categories. These data indicate no particular

significant difference overall, but there were differences within the groupings. For example, those with Bachelor's degrees noted greater integration for *high stakes testing*, *licensure exams*, *student exhibits*, and for *teacher made multiple choice test*. Conversely, with the exception of those with less than a Bachelor's degree, all others noted a preference for integration of higher order thinking promoting practices. The use of *portfolio* assessment was least favored by those holding a Bachelor's plus, Masters, and Doctoral degrees. All were in agreement that *student self-evaluation and grading*, *publisher tests and rubrics*, and *normal curve grading* were the least integrated practices. Again, performance assessment was the highest rated practice for integration (overall mean score of 4.3).

Kruskal Wallace analysis showed a significant difference in perceptions of importance for *term papers* (p 0.028) among faculty who held a bachelor's degree or less. No other assessments differed in regard to experience. Significant differences in perceptions of importance were also found for *high stakes testing* (p 0.008), and the *use of publishers' tests* (p 0.019) among those holding less than a Masters' degree. *Teacher made multiple choice* (p 0.029) and *weekly quizzes* (p 0.018) showed significant differences among faculty who had taught for more than 20 years at the community college level. Appendix G summarizes each of the findings for the respective variables.

These aspects seem to be a common thread notwithstanding the influence of gender, academic preparation and teaching experience.

#### **Research Question 4:**

What is the effect of community college faculty gender, teaching experience, and academic preparation on their perception about the *integration* of selected assessment practices?

## Gender

“To what extent did gender of community college faculty distinguish the integration of selected kinds of assessment practices into their instructional routines?”

Regarding the influence of gender on the integration of selected assessment practices, an overall mean score of 3.52 was found among males and females. There were specific differences in integration among selected practices. Performance assessments and testing for higher order thinking were among the highest ratings (means 4.23 and 4.12). Among the lowest for integration included *high stakes testing* (mean 2.81), *student self-evaluation* (mean 2.76), *normal curve grading* (mean 2.52), *student exhibits* (mean 2.44), *publishers' rubrics and tests* (means 2.63 and 2.96 respectively), *oral presentations* (mean 3.14) and *departmental tests* (mean 3.02).

Inferential analysis results revealed that gender differences for integration of conventional assessments were found for *test items requiring higher order thinking* (p 0.032), *grading conferences* (p 0.044), and *grading rubrics provided beforehand* (p 0.013), all of which favored significant integration variations among females.

## Teaching Experience

Almost all teaching experience categories indicated the integration of *performance* related assessments (mean 4.23) as well as *higher order thinking exams* (mean 4.12). However, the use of *essay exams* (mean 3.11) was only modestly noted as being integrated. In fact, publishers' rubrics and tests were among the lowest ratings for integration (means 2.63 and 2.96 respectively). Additionally, experience did not modulate student self-evaluation grading (mean 2.76); normal curve grading (mean 2.52); nor high stakes testing (mean 2.81). These trends were apparent throughout.

Faculty who had taught at the community college for less than 3 years and for more than 20 years demonstrated significant variations in integration of *student exhibits* (p 0.024) into practice as an authentic tool. Faculty who had taught for 11 years or more, demonstrated significant variation in integration for *teacher made multiple choice tests* (p 0.021) as a conventional assessment tool. On the other hand, faculty who had taught at institutions outside of the community college for less than 3 years and between 4 years to 11 years showed significant variation for integration for *performance assessment* (p. 0.002); *oral presentation* (p 0.023); and *publisher created rubrics* (p 0.004) as authentic tools. Those who had taught between 4 years to 10 years, demonstrated significant variations for *licensure exams* (p 0.005) and *specialized skills testing* (p 0.032) as conventional tools for integration in the learning environment (Appendix H).

#### Academic preparation

The factors for faculty academic preparation included less than a Bachelor's degree, a Bachelor's degree, a Bachelor's degree plus, a Master's degree, a Master's degree plus, and a Doctoral degree. The lowest mean score ratings occurred for *grading conferences* (2.93), *Essay testing* (2.87), *term paper* (2.73), *publisher tests* (2.87), *normal curve grading* (2.5), and *student self-grading* (2.4) in all cases.

The highest rankings were for performance assessment practices for all groups; *higher order thinking items* (mean 4.3) was observed for all group except for those holding less than a bachelor's degree (mean 3.60); and *licensure exams* (mean 4.2) for all groups too. These results, again mirrored the results for other variables.

Inferential analysis by Kruskal Wallace revealed that for authentic assessment practices, faculty holding a master's degree and higher showed significant integration variations in



*publisher created rubrics* (p 0.021). The only significant differences in variation for conventional assessment practices were noted for faculty holding less than a bachelor's degree. This group reported lower integration preference for *projects* (p 0.047); use of *departmental/program tests* (p 0.008); and *licensure exams* (p 0.000).

### **Research Question 5:**

What is the relationship of the perceived levels of *importance* and reported levels of *integration* on selected assessment practices among community college faculty?

These data were analyzed in two ways: A Pearson's  $r$  correlation analysis between *importance* and *integration* of *authentic* practices and the same for *importance* and *integration* of *conventional* practices. An overall Pearson  $r$  correlation associating *authentic* and *conventional* practices resulted in an  $r$  value of 0.688. This value suggests that faculty integrated practices deemed as important at least at moderate to high moderate levels. This is supported by an effect size measure of the Pearson  $r$  which resulted in a value of 0.47 (47%) which indicates that the relationship of importance to integration shared a 47% overlap.

Additionally, due to the large sample size, a test for the significance of the calculated  $r$  value at a  $p$  value of 0.05 was performed to check for false correlations. The test result was a directional value of 0.004 and a non-directional value of 0.009, again supporting a moderately high correlation between the perceptions of importance and integration of authentic assessment practices (Table 12).

Conversely, a correlation of *importance* and *integration* for *conventional* practices resulted in a Pearson's  $r$  value of 0.277. This  $r$  value, unlike the results obtained for the correlation of *importance* and *integration* of *authentic* assessment practices, suggests that even

though faculty deemed selected conventional practices as *important*, it didn't necessarily mean that these were favored for *integration*.

A significance test of the Pearson  $r$  gave a directional value of 0.180 and a non-directional value of 0.360, again supporting the results of a low correlation of the means for *importance* and *integration* of *conventional* assessment practices (Table 13).

Table 12

Authentic Assessment Mean Scores

<b>Assessment Practice</b>	<b>Importance</b>	<b>Integration</b>
Performance	4.43	3.66
Oral presentations	4.28	2.72
Test items - higher order thinking	4.14	3.60
Rubric provided to students first	3.87	3.29
Instructor rubric	3.78	3.35
Grading conference	3.58	2.81
Portfolios	3.37	2.50
Teacher made tests with varied question types	3.34	3.14
Teacher created essay questions	3.30	2.80
Term paper	3.22	2.76
Student self-evaluation/grading	3.10	2.41
Publisher's rubric	2.90	2.29
Student exhibits	2.87	2.13

Mean of the means	3.552	2.882
Pearson's Correlation ( $r$ – value) of the means 0.688		

Table 13

*Conventional (Traditional) Assessment Mean Scores*

<b>Assessment Practice</b>	<b>Importance</b>	<b>Integration</b>
Projects	4.05	3.20
Licensure exams	4.05	2.61
Small groups	3.85	3.09
In class discussions and questions	3.75	3.67
Specialized skills	3.63	2.76
Standards based testing	3.60	3.14
Department/program tests	3.57	2.67
Pre and post testing	3.51	2.86
Teacher made multiple choice	3.29	3.18
Weekly quizzes	3.14	2.88
High stakes testing	3.09	2.50
Publisher's test	2.96	2.60
Normal curve grading	2.45	2.19
Mean of the means	3.457	2.850
Pearson's Correlation ( $r$ – value) of the means 0.277		

### **Open ended questions:**

Participants were asked to provide specific assessment practices that they believed to be important and useful but which were not specifically noted in the survey provided. Most of the tools were online assistive assessment sources built into the online portals such as *goals* in Blackboard, *discussion forums*, *observed skills' verification by a 3<sup>rd</sup> party* especially for online courses. Some faculty indicated that they gear the final exam or class towards the needs of the industry to which the students will be seeking employment, and at times industry certification exams will be included. Low-stakes quizzes in which students have multiple chances was also revealed as an integrative practice. Open ended questions indicated integration of assessment tools that encourage the development of higher order skills and application of knowledge even though they may not be classified as authentic or conventional by faculty (Appendix J).

### **Summary**

The major purpose of the study was to survey perceptions about the *importance* and *integration* of selected types of *authentic* and *conventional* assessment practices among community college faculty in the 9 community colleges in West Virginia. The survey was distributed to all 9 WV community colleges via Survey Monkey. However, the institutional email filter at one of the colleges blocked all communications from the survey site as well as external communications from Microsoft Outlook. A total of 187 returns were received, from which 9 individuals opted out of participating in the survey. Of the total number, 8 surveys were omitted as each had more than 10% of the allowable missing data.

A larger number of the respondents were from the Health Science Department (60), with a smaller number replying from Communications (9); and Business and Computer Science (18) programs. The number of female (129) participants almost doubled the number of male (58)

peers. Participants ranging in age “from 50 to 65 years” (105) was the largest age group. “Masters’ degree or higher” (60) was the most prevalent academic level. Participants with “between 4 and 20 years” (127) was the largest experienced group, whereas “10 years or less” (144) was the predominant group with outside work experience level other than at the community college level.

*Performance evaluation* (mean 4.65), *test items involving higher order thinking* (mean 4.35), and *providing the grading rubrics to students beforehand* (mean 4.11) ranked higher for the *importance* and *integration* of *authentic* assessments. *Publishers’ rubrics* (mean 3.04) and *student exhibits* (mean 3.05) were ranked at the lowest level. *Conventional* practices revealed that *licensure exams* (mean 4.36); *projects* (mean 4.28); and *small groups* (mean 4.07) ranked higher. *Normal curve grading* (mean 2.60); *Publishers’ tests* (mean 3.16); and *high stakes testing* (mean 3.24) ranked lower for level of *importance* and *integration* practices for *conventional* practices.

The correlation between the means of *importance* and *integration* of the *authentic* assessment resulted in a moderately high relationship. Conversely, a low correlation occurred for the perceived mean scores comparing *conventional* assessments.

There is a large variety and number of assessment practices that are being integrated into practice by community college faculty. These practices vary based on department or program and if a licensure or national exam will be required. The responses to the open ended questions indicate that there is not a clear division between what may be regarded as an *authentic* or a *conventional* assessment practice, but it appeared that there was a stronger relationship between importance and integration for authentic practices than conventional tools.

## CHAPTER 5

### CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

This chapter begins with a review of the investigation, its research methods and its related research questions, followed by a discussion of the findings/conclusions, implications and recommendations that were generated from its results.

#### **Purpose of the study**

The purpose of this study was to determine the perceptions among West Virginia community college faculty about the *importance* of selected *conventional* (traditional) and *authentic* assessments for quality student assessment. Additionally, it was to be determined to what extent community college faculty integrated such assessments into their classroom instructional routines. A final purpose was to know if such perceptions and practice held by community college faculty were distinguished by their gender, teaching experience, and academic preparation. These measurements provided current and relevant information about the status of assessment practices among community college faculty in the state.

#### **Research Methods and Population**

The research design for this study was a single group, cross-section quantitative survey technique with purposeful selection of subjects. It was structured to obtain self-reported data regarding the current status of student assessment techniques among full-time community college faculty in West Virginia. The dependent variables were measures of the perceptions of faculty about the *importance* and *integration* of selected *conventional* and *authentic* kinds of student assessment practices. The outcomes were further analyzed with regards to assessment

practices based on demographic variables, including years of teaching experience inside and outside the community college environment, and levels of degrees and academic preparation.

The population for this survey consisted of all West Virginia community college full-time faculty from 9 out of the 10 community colleges in West Virginia. By design, the focus was on full-time faculty (rather than part-time) assuming they have a greater vested interest in their institutions and are the ones who teach a majority of course work within their respective course offerings. According to the faculty database from the West Virginia High Education Policy Commission (HEPC) website ([www.wvhepc.org/](http://www.wvhepc.org/)), and based on the most recent census data (2013), there are 502 full-time community college faculty in West Virginia.

The survey instrument used for the investigation is the “*Community College Faculty Survey of Assessment Beliefs and Practices*” (Appendix A). The tool was modified to address the particular outcomes related to the objectives of this investigation.

The survey was divided into sections A, B, and C. Section A (Demographics) focused on data about the faculty, including gender, years of teaching experience at the community college level, and faculty academic preparation. Section B consisted of 26 Likert style items numerically keyed to a 5-point ranking system designed to obtain instructor perceptions about the levels of *importance* and *integration* of selected assessment practices. Section C was an open ended question which directed faculty to write in assessment practices perceived as important to integrate in their learning environment that were not included on the survey.

### **Research Questions**

1. What level of *importance* is given to selected kinds of *authentic* and *conventional* (*traditional*) assessment by community college faculty for the proficient assessment of student learning?

2. To what extent do community college faculty integrate selected kinds of *authentic* and *conventional (traditional)* assessment practices into their instructional routines?
3. What is the effect of community college faculty gender, teaching experience, and academic preparation on their perceptions about the *importance* of selected assessment practices?
4. What is the effect of community college faculty gender, teaching experience, and academic preparation on the perception about the *integration* of selected assessment practices?
5. What is the relationship of levels of *importance* and *integration* of selected assessment practices among community college faculty?

### **Summary of Findings/Conclusions**

Research Question 1. (Level of *importance* for *authentic* assessment practices). The top three selections were *performance assessment, test items that require higher order thinking and grading rubrics provided to students beforehand*. The lowest three were *publisher rubrics, student exhibits* and *student evaluation self-grading*. On the other hand, the top three for level of *importance* for *conventional* assessment practices were *licensure exams, projects* and *small groups*, whereas the lowest three were *normal curve grading, publisher tests* and *high stakes testing*. Overall perceptions of level of *importance* for *authentic* assessment compared to *conventional* assessment practices indicated no significant differences with both tending to practices that target higher order thinking and away from those that led to rote memorization.

It can be concluded overall that faculty perceived a common and moderate level of importance for and integration of selected conventional and authentic assessment practices.



They do have specific preferences for various kinds of practices and these varied considerably across the authentic and conventional groupings, depending on one's instructional context and departmental program. Interestingly, the various practices associated with formal testing (even for conventional groupings) were not highly perceived as important for integration. An exception was a preference for test items that induce higher order thinking and licensure exams.

Although a variety of assessment sources were evident, a major focus seemed to be on performance related practices with associated rubrics, licensure exams and projects. These results could also be due to the high number of participants from faculty from the Allied Health department. Interestingly, small groups as an authentic practice was perceived high among the rankings when literature states that one of the deterrents for use of authentic assessment practices is that the activities are time consuming in terms of preparation and implementation (Tanner, 2001).

Research Question 2. (Level of *integration* of *authentic* assessment practices). The results revealed the top three selections to be *performance assessment*, *tests that require higher order thinking*, and *instructor created rubrics*. The lowest three were *exhibits*, *publisher created rubrics*, and *student self-evaluation*. The top three for level of *integration* for *conventional* assessment were *in class discussions and questions*, *projects*, and *standards based grading*, whereas the lowest three were *normal curve*, *high stakes testing*, and *publisher created tests*. Overall comparison of *integration* of *authentic* and *conventional* assessment demonstrated a similar trend as was observed for levels of *importance*. The exception was the choice of low preference for *portfolios* for *authentic* assessment and *normal curve grading* for *conventional* assessment.

It can be concluded overall that there was no significant difference for integration of conventional or authentic assessment tools. Again, performance activities were ranked highly that engaged students, along with the associated rubrics to specify performance expectations for students. When testing was preferred, testing that induced higher order thinking was the choice. Interestingly, faculty overall did not perceive the use of *student self-evaluation/grading* as an important practice for integration, as well as *portfolios* and *publishers' tests*. These sources, overall, place the student more so at the center of assessment control rather than the faculty. The use of *portfolios* would not be a preferred integration tool as it is built around the students and their needs, interests and abilities. It is very difficult to evaluate *portfolios* due to the variability and the lack of a standard unifying measure of competency. These results were likely confounded a bit due to the disproportions in sample sizes for several of the sub-variables (gender, teaching experience, and degree completion).

Research Question 3. (What is the effect of community college faculty gender, teaching experience, and academic preparation on their perceptions about the *importance* of selected assessment practices). These results revealed that gender modulated *importance* for *test items that require higher order thinking, student self-evaluation* and *teacher made essay questions*. However, lesser importance was noted for *instructor created rubrics, rubric presented to students beforehand*, and *student exhibits*. Males showed a lower preference for licensure exams on levels of *importance* of selected *conventional* practices. These results could be due to the disproportional distribution of gender and faculty department participation.

Regarding academic preparation those possessing a bachelor's degree or less showed significant variations in perception of *importance* for *term papers*. A significant variation in

perceptions of *importance* was also observed for *projects*, *high stakes testing*, and *use of publisher tests* in those holding less than a Masters' degree.

Data from teaching experience revealed that those who had taught at the community college level for 20 + years indicated significant variations for *exhibits* whereas those with 11 years and more experience outside of the community colleges indicated variations in perceptions of *importance* for all the selected *authentic* assessment tools except *oral presentations*.

Variations in perceptions of importance for *teacher made multiple choices tests* and *weekly quizzes* was observed among those who had taught for more than 20 years at the community college level. *High stakes testing* was the only *conventional* assessment practice that indicated variations in perception of importance by faculty who had experience outside of the community college for 11 years or more. Data from more experienced faculty and those who had taught in and outside of the current community college settings showed an overall difference in perceptions of *importance* for *conventional* practices between males and females.

Research question 4. (What is the effect of community college faculty gender, teaching experience, and academic preparation about the *integration* of selected assessment practices). *Integration of authentic* assessment practices revealed a significant gender difference with males showing a variation in preferences for *test items requiring higher order thinking*, *grading conferences* and *grading rubrics provided beforehand*. Faculty who had taught for three years or less, and those with twenty years and more also showed variation in integration practices for *student exhibits* as an assessment tool, whereas faculty who had taught outside the community college system for 11 years or more demonstrated significant variations for *oral presentation* and *use of publisher's rubric* as an important assessment practice for *integration*.

Results for the *integration of conventional* assessment practices indicated that females favored the *integration of small groups*. Faculty holding less than a Masters' degree reported lower *Integration* preference for *projects*, use of *Department/program test*, and *licensure exams*.

Age-wise, the *integration of standards based grading* and *in class discussions* by faculty aged 66 years and older. Faculty aged 35 years and younger reported low *integration* preference for *in class discussions and questionings*. Faculty holding less than a Masters' degree reported lower *integration* preference for *projects*, use of *Department/program test*, and *licensure exams*.

Faculty who had taught at the community college for more than 20 years and less than 3 years demonstrated significant variations for preference for *integration of teacher made multiple choice tests*. Faculty who had taught outside of the community college demonstrated a significant variation in *integration* preference for *licensure exams* and *specialized skills testing*, when compared to faculty who had taught for 11 years or longer.

Research question 5. (Relationship between level of *importance* and *integration* of selected assessment practices among community college faculty). Results found that perceptions of *importance* and *integration of authentic* assessment practices were at least moderately correlated, whereas there was a low correlation between the means for *conventional* assessment practices. These results indicate that authentic assessment practices that faculty perceived as important, were most likely to be integrated into their learning environment whereas conventional practices deemed as important were less likely to be integrated. These results once again favor the preferential integration of practices that promote higher order thinking skills in students.

## **Implications**

*Student self-evaluation* was not a preferred *authentic integration* practice method throughout most of the population variables. Although faculty do understand the benefits of allowing students to be active participants in their learning process, they may not be comfortable in relinquishing full control. They most likely felt the need to be active participants in directing the learning process and the level of expectations (McMillan & Hearn, 2008). These results could also be due to faculty participant demographics in which a vast majority were from the Allied Health and Math and Science divisions where students are required to learn demonstrative skills, e.g. in clinical or lab settings controlled by the instructor.

Gender differences occurred in regard to *importance* and *integration* of assessment tools. Males showed a lower preference for *grading conferences*, *test items requiring higher order thinking* and *grading rubrics provided to students beforehand*. This outcome may have been related to the females' participant number being almost double that of the males.

Most of the participants were from divisions that require demonstrative techniques such as clinical skills for the allied health field and laboratory techniques for the sciences. They selected integration practices that, though categorized under *conventional* assessment, can promote higher order thinking if applied effectively. This difference may be attributed to a background in the baccalaureate system, which is more academic knowledge than practical skills based, therefore teaching to the next level rather than skills acquisition in preparation for the job market (Banta (2002).

The community college system in West Virginia has only been in existence for about 12 years so its faculty most likely were instructors in the 4-year system before moving to the community college system. There seems to be an observed trend between perceptions of

*importance* and *integration* for those who have been at the community college system for 20 years or more. Their choices tended more towards practices that do not demonstrate learning towards rote memorization. This could be because they had to transition from the former school of thought about the use of *conventional* assessment as a tool in which assessment was seen more as an institutional measure than as a classroom or faculty based informative tool. A significant difference was observed for *teacher made multiple tests* for those who have taught for 11 years or more; and also for *weekly quizzes* for those who have taught for more than 20 years. This trend may be attributed to understanding the challenges community college students face in trying to balance works and school, and the tendency to lessen the stress level in having them study for a test each week. Preference for multiple choice testing could be to prepare them for impending national standardized licensure exams, therefore a preference for standardized tests or standards based grading.

An observed trend is clearly indicated for that those who have taught outside of the community college for 10 years or less. Their tendency was to select assessment practices that were not performance based within the respective assessment category. This could be due to the broad category of their understanding of the definition of years of teaching outside of the community college. A lack of clarity in the survey as to whether the reference was years of teaching in other higher education institutions, or the K-12 level. They may also have had teaching experience from industry, technical or vocational settings, especially for allied health field and workforce programs. This finding is supported by Gouboud and Yan (2004) who reported that faculty outside of the field of education rely more on traditional teaching and assessment practices. Years of teaching experience did not seem to distinguish the *importance* of assessment overall, other than *student exhibits* and *oral presentations*

There is an observed trend for integrating assessment practices in relation to academic preparation. Those with a master's degree plus showed a lesser preference for high stakes testing. The lowest three means were found for those holding a Masters' degree plus which would indicate an understanding of assessment methods because of their graduate training or academic exposure. These findings could be related to those faculties in the divisions with the highest number of participants. Most of the instructors in the allied health field will have at least a master's degree. These faculties could also have been exposed to the purposes of assessment in their graduate work and have a more focused understanding of the purpose or role of an instructor, as a facilitator of knowledge rather than an imparter of knowledge. It may be that they have a clear understanding of the cooperative structure of a learning environment that promotes learning.

The current investigation indicated that faculty perceptions of *importance* and *integration* of assessment practices included practices that were performance based focusing on application of knowledge. The findings are in contrast to Ewell (2009b) who indicated that a minority of faculty have embraced the whole assessment idea, or see it as a way to improve student learning, apart from those faculties in majors with a structured curriculum in which performance-based assessment is already integrated into their practice. The results showed that the preferred selection of *authentic* assessment practices based on perception of *importance* were assessment practices that are skills related such as: (a) *performance assessment* which requires hands on demonstration of acquisition of skills; (b) *test items that require higher order thinking* as an assessment tool that demands application of knowledge; and (c) *grading rubric supplied to students beforehand* which requires students to apply expectations to the learning process.

Faculty choices for perceptions of *importance* for *conventional* assessment practices were also directed to activities that required application of knowledge. These activities included *licensure exams* for allied health fields; preferences for *project activities* that involve active learning; and activities that provide opportunities for each individual student to become part of the learning process and the opportunity to exchange ideas.

Benjamin & Kline (2006) contended that though states are increasingly developing assessment systems that are related to institutional accountability, indirect measures as evidence of student learning have been met by great resistance by faculty who see accountability as an administrative function. The current study, in contradiction, demonstrated preferred choices for *integration* of assessment practices and followed the same trends as observed for the perceptions of *importance*, with a preference for assessment practices that demonstrated application of knowledge. Active learning processes were preferred over practices that were more passive in nature. This was supported by the top three choices for *integration* of assessment practices for both *authentic* and *conventional* as compared to the bottom three practices.

The top three choices of *integration* of *authentic* assessment were *performance assessment*, *test items requiring higher order thinking*, and *instructor created rubrics*. The first two choices are demonstrations of knowledge acquisition whereas the third one, *instructor created rubrics*, is a practice that informs students of the standards of expectation, thus making the learning process goal oriented. *Rubrics provided beforehand to students* make the learning process active as it becomes a process geared towards an achievement based goal.

A similar trend was observed for the *integration* of *conventional* assessment practices. Faculty preferred practices that tended to encourage active rather than passive learning. *In-class discussions and questions* ranked as a high preference for *integration* whereas *small groups* did



not rank among the top three preferences. This was not surprising because time constraints would favor *in-class discussion and questions* over *small groups* activities.

The lowest authentic methods for *integration* were *student exhibits*, *publisher created rubrics*, and *student self-evaluation* activities. These choices were similar to the bottom three choices for least *importance* because these were practices that demonstrated the least active learning processes.

The integration of *conventional* assessment activities ranked at the bottom were *normal curve grading*, *high stakes testing* and the use of *publisher created tests*. These practices, especially *normal curve grading* and *high stakes testing* lead to rote memorization or teaching to the test as they are activities usually associated with punitive outcomes, those geared towards a selective process rather than one that encourages all to succeed, e.g. *high stakes testing*.

Faculty indicated the least important were those practices that are knowledge based and do not involve demonstration. McDowell (2002) concluded that learning and assessment go hand in hand in that assessment should be seen not only as a measure of achievement but as a tool for learning. His conclusion is supported by the findings of this study indicating that for *authentic* assessment practices, the least-favored choices were practices that are knowledge based with no skills demonstration. Some examples: *publisher created rubrics* that does not connect the instructor expectations with student expected learning outcomes; *students' exhibits* which is a passive rather than an active learning process; and *student-self-evaluation*.

Likewise, *conventional* assessment practices least favored were those that tended to involve passive learning: e.g. *normal curve grading*, a process which is not standards-based but point-based. It is not viewed as an accurate indicator of student performance. *Publisher created tests* and *high stakes testing* can also lead to instructors teaching to the test e.g. because they do not

encourage individual decision making. In *high stakes testing*, the instructor and the institution are evaluated based on the student performance on a standardized test, thus there is a tendency to teach to the test (Hidden curriculum, 2014). These results support the findings by Buhagiar (2007) who offers that the purpose of assessment in higher educational institutions has evolved from those activities that involve assigning grades to those that improve higher order thinking, whether the selection of activities are *authentic* or *conventional* practices.

Faculty preferred *small groups* teaching and *in class discussions and questions* as *integration* practices. These practices infer a learner centered environment that engages the students in collaborative performance activities that are challenging, meaningful, and promote critical thinking and construction of knowledge. This finding is consistent with previous research concerning the effect of learner centered instructions (Alkeaid, 2007; Vega & Tayler, 2005; Gulikers, Bastiaens & Kirschner, 2004; Henson, 2003; King, 2002; and Dierick & Dochy, 2001).

## **Conclusions**

Community college faculty are currently practicing *authentic* practices, and even those who are performing *conventional* practices choose those that are proficiency or performance based. Moreover, the faculty significantly participate in the assessment of their students and support related learning outcomes. However, these results reveal that the findings may not be true for all programs.

Faculty have a strong perception of the *importance* and *integration* of various assessments of student learning outcomes but may not necessarily distinguish practices as purely “*authentic*” or “*conventional*”. This was evident in the *Open ended questions* where faculty gave examples of other practices that were learning-outcomes based such as online assistance tools

built into Blackboard, discussion forums, and observed skills verification by third party evaluators. These results differ from Somerville (2011) who offered that community college faculty have been successful in establishing student learning outcomes but have not been as effective when it comes to assessment of student learning. These participants engaged in the assessment of their students.

A question to consider is whether the dichotomy of assessment practices as *authentic* or *conventional* is creating greater misunderstanding than understanding. Would it be best to examine all current practices and help the faculty understand how these assessment practices are connected to the needs of the present work place, and how these work to demonstrate learning and performance in the appropriate context? The results of this study suggest that there is no clear separation of the two assessment categories in practice or that one is favored over the other. Both kinds of assessment when applied appropriately can result in effective assessment of students' knowledge, achievement and performance. This is supported by Boud and Falchikov (2002) and Tanner (2001) who found that the use of traditional methods continues to play an important role in the assessment practices of faculty today. Consequently, it is the assessment method best connected to the learning outcome or achievement target that should be the focus. Unlike what Weimer (2002) implied, *authentic* and *conventional* assessment methods are being integrated in the learning environment with little significant difference based on *integration* difficulty.

Although *authentic* assessment simulates real life situations where students demonstrate proficiency based on performance rather than on selection of choices, the conclusion from this study indicates that even when the choices are *conventional*, the selection of practices are those

that demonstrate the same trend based on learning outcomes e.g. *in class discussions and questions, projects, and standards based grading.*

The relationship between the *importance* and *integration* of selected assessment practices appears to be strongly correlated with *authentic* techniques when compared to *conventional* techniques. This most likely suggests that selected *authentic* techniques noted as “important” are more likely to be integrated into instruction than will selected *conventional* practices.

Gender differences were noted previously, but should be interpreted cautiously given the disproportion of female to male participants (129/58). Of the 187 surveys returned, 60 (32%) were teaching in the health sciences division, which include nursing. These programs could have common practices that favored either the use of *conventional* or *authentic* practices. Similarly, math and sciences and technical studies divisions each accounted for 17% of the returns, and these programs likely have specific assessment practices that are relevant to the respective disciplines.

It is conclusive among the population variables that participants did not give much *importance* to and *integration* of *publisher’s rubrics, student exhibits, normal curve grading* and *high stakes testing*. Preferred were *performance evaluations, grading rubrics* (which suggest the use of performance activities), and *higher order thinking*. Interestingly, the use of selection types of testing (e.g. *multiple choice tests*) was only moderately noted as important and lesser for *integration*. This finding would be consistent with *learner centered performance activities* and *rubric grading*. However, *final exams* and certification assessments germane to the particular needs of specialized industries where students may be employed were noted as a preference within specific departments that require licensure exams.

Finally, it should be noted that the study experienced limitations associated with a combination of three factors: participants, settings, and time frames and response. A return rate of 40.5% percent is greater than online survey rates experienced nationally; however, it may not be sufficient to generalize these results to all community college faculty in West Virginia.

Respondents were mainly females in the Allied Health divisions which questions whether similar results would occur with a more equally distributed gender and division sample of participants.

The distribution of participants from each of the nine community colleges was also not equitable. This again adds to the challenge of whether the results as presented are representative of the community colleges as a whole or just with those divisions that had a large number of participants.

Moreover, previous research indicated a multifaceted nature of teachers' assessment beliefs. This study defined assessment beliefs from one dimension, either *authentic* or *conventional*, but did not take into consideration the interaction of perceptions or beliefs. The survey tool did not provide opportunities for the respondents to indicate interactive responses of perceptions of *importance* or *integration* of *authentic* and *conventional* assessment practices. A mixed method analysis to qualify their choices could have strengthened their choices of perceptions and *integration* of the various selected assessment practices. It would have provided an opportunity for the faculty to qualify their choices and therefore reveal if a preference was leaning more towards a mix of authentic and conventional practices instead of a choice preference.

### **Recommendation for further studies**

Further studies should focus on separating gender groups and compare the results to see if the conclusions hold true to our findings. Further research can also be carried out based on individual academic divisions, to determine perceptions of *importance* and *integration* of various assessment practices. Do instructors teaching basic courses have the same perception of *importance* and *integration* of practices as do instructors who teach in the specialized programs? Another question is whether community college faculty understand and have some agreement about the differences between *authentic* and *conventional* assessment practices. Faculty described the use of assessment techniques other than what were noted on the survey system. These variables would be informative to know about and could contribute to an array of assessment techniques. Since a large number of community college faculty are adjunct faculty, it would also be interesting to see if our findings are consistent with those from adjunct faculty.

### **Summary**

A main theme throughout this study is that assessment of student learning outcomes is critical to the instructional process. It is a pervasive enterprise in higher education which is evidenced by the variety of assessment practices and techniques that support an extensive range of assessment needs as one considers the variations in programs and training requirements in a community college setting.

Although in the current study the terms “*authentic*” and “*conventional*” pointed to specific *selected* practices and techniques, it should be noted that assessment is a comprehensive concept with an extensive range of performances, projects, activities, and types of informal and formal

supply and selection testing formats. Perhaps an important issue is not a dichotomy of “*authentic*” versus “*conventional*” techniques, but to recognize the need for the appropriate interaction of these methods in a given instructional circumstance to demonstrate learning and performance. To this end, choosing any kind of assessment practice should be relevant to the need to effectively measure the skill and learning at hand. Our results indicate that faculty do understand the need for students to develop higher order thinking skills and the ability to apply knowledge, the issue therefore should not be a focus on semantics, whether authentic or conventional, but a focus on “how” to assess learning based on the different departmental needs.

No one type of assessment, whether it be known as “*authentic*” or “*conventional*” can assess the multitude of goals and outcomes evident in schooling through the grades and into higher education. Perhaps the most important issue is that our assessments are visible, accountable and relevant, not just for the benefit of students and their teachers, but also for a society needing a work force prepared to function in a technological global context.

## REFERENCES

- Achieving the Dream, Inc., (2016). Retrieved September 9, 2016, from <http://achievingthedream.org/about-us>
- Alkeaid, A., (2007). ISO 9000 and creativity: Potential advantages of implementing ISO in community colleges. *College Student Journal*, 41(3), 657-667. Retrieved February 1, 2015, from Academic Search Premier database.
- American Association of Community Colleges, (2014). Developing measures of community college effectiveness and outcomes. The voluntary framework for accountability. Retrieved September 22, 2014, from <http://vfa.aacc.nche.edu/Documents/VFAOutcomesReportWebFINAL.pdf>
- American Federation of Teachers, (2010). American academic: A national survey of part-time/adjunct faculty. Vol 2. Retrieved February 1, 2015, from [http://www.aft.org/sites/default/files/aa\\_partimefaculty0310.pdf](http://www.aft.org/sites/default/files/aa_partimefaculty0310.pdf)
- Angelo, T., & Cross, K., (1993). *Classroom assessment techniques: A handbook for college teachers* (2nd ed.). San Francisco: Jossey-Bass.
- Applefield, J., Huber, R., & Moallem, M., (2001). Constructivism in theory and practice: Toward a better understanding. *The High School Journal*, 84, 35-53.
- Backes, C., & Brown, P., (2009). Going beyond the test! Using alternative assessments in career education. *Techniques: Connecting Education & Careers*, 84(3), 34-37. Retrieved February 1, 2015, from Academic Search Premier database.
- Banachowski, G., (1996). Perspectives and perceptions: The use of part-time faculty in



- community colleges. *Community College Review*, 24(2), 49. Retrieved February 1, 2015, from Academic Search Premier database.
- Banta, T. (2002). *Building a scholarship of assessment*. San Francisco: Jossey- Bass.
- Bayer, A., & Braxton, J., (1998). The normative structure of community college teaching: A marker of professionalism. *The Journal of Higher Education*, 69(2), 187-205. Retrieved February 1, 2015, from ProQuest Education Journals database.
- Benjamin, E., (2002). How over-reliance upon contingent appoints diminishes faculty involvement in student learning. *Peer Review*, 5(1), 4-10.
- Benjamin, R., & Klein, S., (2006): Assessment versus accountability in higher education: Notes for reconciliation. Retrieved February 1, 2015, from [http://cae.org/images/uploads/pdf/06\\_Assessment\\_Versus\\_Accountability\\_in\\_Higher\\_Education\\_Notes\\_on\\_Reconciliation.pdf](http://cae.org/images/uploads/pdf/06_Assessment_Versus_Accountability_in_Higher_Education_Notes_on_Reconciliation.pdf)
- Bers, T., (2005). Assessing critical thinking in community colleges. *New Directions for Community Colleges*. 15-25. Retrieved September 22, 2014, from <http://www3.qcc.cuny.edu/WikiFiles/file/Bers%20Assessing%20CT%20Community%20Colleges.pdf>
- Bird, N. J., Crumton, M., Ozan, M., & Williams, T., (2012) Workplace information literacy: A neglected priority for community college libraries. Retrieved February 1, 2015, from [http://www.academia.edu/3153790/Workplace\\_Information\\_Literacy\\_A\\_Neglected\\_Priority\\_for\\_Community\\_College\\_Libraries](http://www.academia.edu/3153790/Workplace_Information_Literacy_A_Neglected_Priority_for_Community_College_Libraries)
- BoarerPitchford, J. K., (2010). An examination of assessment practices of community college

- Instructors. A dissertation. Retrieved September 22, 2014, from <http://ezproxy.marshall.edu:3480/pqdtft/docview/89187776/130EE23DFFDF152B53/1?accountid=12281>
- Boud, D., & Falchikov, N., (2007). *Rethinking assessment in higher education: Learning for the longer term*. New York: Routledge.
- Brookfield, S. D., & Merriam, S. B., (2005). *Critical Thinking in Adult Education*. Hoboken, NJ: Wiley.
- Brookhart, S., (1993). Teachers' grading practices: Meaning and values. *Journal of Educational Measurement*, 30(2), 133-142.
- Brown, S., & Glasner, A., (1999). *Assessment matters in higher education: Choosing and using diverse approaches*. Buckingham, England: Society for Research into Higher Education and Open University Press.
- Bryman, A., & Cramer, D. (1997). *Quantitative Data Analysis with SPSS for Windows: A guide for social scientists*. New York: Harper & Row.
- Buhagiar, M., (2007). Classroom assessment within the alternative assessment paradigm: revisiting the territory. *Curriculum Journal*, 18(1), 39-56. Retrieved February 1, 2015, from Academic Search Premier database.
- Bumphus, W. G., (2012). American Association of Community Colleges. Reclaiming the American Dream. Community colleges and the nation's future. Retrieved February 1, 2015, from <http://www.sheeo.org/resources/presentations/hepc-2012-reclaiming-american-dream%E2%80%94community-colleges-and-nations-future>
- Burbach, M., Matkin, G., & Fritz, S., (2004). Teaching critical thinking in an introductory leadership course utilizing active learning strategies: A confirmatory study.

*College Student Journal*, 38(3), 482-493. Retrieved February 1, 2015, from

[http://ezproxy.marshall.edu:2091/elibweb/elib/do/document?set=search&dictionaryClick=&secondaryNav=&groupid=1&requestid=lib\\_standard&resultid=2&edition=&ts=238611C4B0AD3DB14094D1F1098F31BE\\_1302314561595&start=1&publicationId=&urn=urn%3Abigchalk%3AUS%3BBCLib%3Bdocument%3B120889062](http://ezproxy.marshall.edu:2091/elibweb/elib/do/document?set=search&dictionaryClick=&secondaryNav=&groupid=1&requestid=lib_standard&resultid=2&edition=&ts=238611C4B0AD3DB14094D1F1098F31BE_1302314561595&start=1&publicationId=&urn=urn%3Abigchalk%3AUS%3BBCLib%3Bdocument%3B120889062)

Cabrera, A. F., & La Nasa, S. M. (2002). Classroom teaching practices: Ten lessons learned.

Retrieved February 1, 2015, from

<http://www.education.umd.edu/EDPA/faculty/cabrera/Classroom%20Teaching.PDF>

Calveric, S. B., (2010). Elementary teachers' assessment beliefs and practices. A Dissertation..

Retrieved September 22, 2015, from

<http://ezproxy.marshall.edu:3480/docview/855823398/fulltextPDF>

Dey, E. L., & Hurtado, S., (2000). Faculty Survey on Teaching, learning, and Assessment.

Retrieved February 1, 2015, from

[http://web.stanford.edu/group/ncpi/unspeficied/student\\_assess\\_toolkit/pdf/NMSUfaculty.pdf](http://web.stanford.edu/group/ncpi/unspeficied/student_assess_toolkit/pdf/NMSUfaculty.pdf)

Diaz-Lefebvre, R., (2006). Learning for understanding: A faculty-driven paradigm shift in

learning, imaginative teaching, and creative assessment. *Community College*

*Journal of Research and Practice*, 30, 135-137.

Dierick, S., & Dochy, F., (2001). New lines in Edu metrics: New forms of assessment lead

to new assessment criteria. *Studies in Educational Evaluation*, 27(4), 307-330.

Dongbin, K., Twombly, S., & Wolf-Wendel, L., (2008). Factors predicting community

college faculty satisfaction with instructional autonomy. *Community College*

*Review*, 35(3), 159-180. Retrieved February 1, 2015, from ProQuest Education

Journals database.

Dougherty, K., Bork, R. H., & Natow, R., (2009). Performance accountability systems for community colleges: Lessons for the voluntary framework of accountability for community colleges. Retrieved September 22, 2014, from

<http://ccrc.tc.columbia.edu/publications/performance-accountability-systems.html>

Evans, R., (2000). *Beyond chalk and talk: Engaging students in the learning process*.

Retrieved February 1, 2015, from ERIC database. (ERIC Document Reproduction Service No. ED462127)

Ewell, P. T., (2009a). Assessment, accountability, and improvement: Revisiting the tension.

National Institute for Learning Outcomes Assessment. Retrieved February 1, 2015, from

[http://www.learningoutcomeassessment.org/documents/PeterEwell\\_005.pdf](http://www.learningoutcomeassessment.org/documents/PeterEwell_005.pdf)

Ewell, P. T., (2009b). Assessment, accountability and improvement: Revisiting the tension.

National Institute for learning Outcomes Assessment. Retrieved February 1, 2015, from

[www.learningoutcomesassessment.org/documents/PeterEwell\\_006.pdf](http://www.learningoutcomesassessment.org/documents/PeterEwell_006.pdf)

Fife, J. D., (2012). Committing to quality: Guidelines for assessment and accountability in higher education. New leadership alliance for student learning and accountability.

Association for Institutional Research. Data and Decisions for Higher Education.

Retrieved February 1, 2015, from

<http://www.airweb.org/eAIR/resourcereviews/Pages/CommittingtoQuality.aspx>

Finchum, J., E. (2008). Response rates and responsiveness for surveys, standards, and the journal. Retrieved February 29, 2016, from

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2384218/?report=reader>

- Flaherty, C., (2013) Inside higher ed. assessment: It's the law. Retrieved February 11, 2015, from <http://www.insidehighered.com/news/2013/07/19/iowa-state-legislators-mandate-course-level-continuous-improvement-reporting-mixed>
- Forster, J. R., (2006). A theoretical framework: For constructing a more positive self-identity. Retrieved February 1, 2015, from [http://www.dependablestrengths.com/assets/documents/archive/theoretical\\_framework.pdf](http://www.dependablestrengths.com/assets/documents/archive/theoretical_framework.pdf)
- Frazier, C., (2007). Investigating teachers' self-perceived applications of classroom assessment practices using the Assessment Practices Inventory Revised (APIR). *Dissertation Abstracts International*, 69 (05). (UMI No. 3313714)
- Freeman, S., & Kochran, F., (2012). The role of assessment and accountability in higher education doctoral programs: A presidential perspective. Retrieved February 1, 2015, from <http://eric.ed.gov/?id=EJ973799>
- Gardiner, L. F., (2002). Assessment and evaluation in higher education: Some concepts and principles. The National Academy for Academic Leadership. Retrieved July 11, 2015, from <http://www.thenationalacademy.org/readings/assessandeval.html>
- Glaser, B., (2011). Grounded theory Institute. Retrieved February 1, 2015, from <http://www.groundedtheory.com/what-is-gt.aspx>
- Glenn, D., (2011). Learning assessment at community colleges is growing but fragile, Report Says. *The Chronicle of Higher Education*. Retrieved February 1, 2015, from <http://chronicle.com/article/Learning-Assessment-at/128203/>

- Goubeaud, K., & Yan, W., (2004). Teacher educators' teaching methods, assessments, and grading: A comparison of higher education faculty's instructional practices. *The Teacher Educator*, 40(1), 1-16. Retrieved February 1, 2015, from ProQuest Education Journals database.
- Gronlund, N., & Waugh, C., (2009). *Assessment of student achievement* (9th ed.). Upper Saddle River, NJ: Pearson.
- Gulikers, J., Bastiaens, T., & Kirschner, P. (2004). A five-dimensional framework for authentic assessment. *Educational Technology Research and Development*, 52(3), 67-86. Retrieved February 1, 2015, from ERIC database. (ERIC Document Reproduction Service No. EJ732658)
- Hamilton A. B., (2011). What is Grounded theory, anyway? An overview with examples from qualitative research on women veterans. Retrieved February 1, 2015, from [http://www.hsrd.research.va.gov/for\\_researchers/cyber\\_seminars/archives/sowh-042811.pdf](http://www.hsrd.research.va.gov/for_researchers/cyber_seminars/archives/sowh-042811.pdf)
- Hanzelka, R., (2007). The Cath school: Where learning matters. *Educational Leadership*, 64(8), 66-69.
- Harland, T., (2003). Vygotsky's zone of proximal development and problem-based learning: Linking a theoretical concept with practice through action research. *Teaching in Higher Education*, 8(2), 263. Retrieved February 1, 2015, from Academic Search Premier database.
- Hass, G., (1977). *Curriculum planning: A new approach*. Boston: Allyn and Bacon, Inc.
- Havnes, A., & McDowell, L., (2008). Balancing dilemmas in assessing and learning in

contemporary education. Retrieved February 1, 2015, from

<https://books.google.com/books?id=A7GTAgAAQBAJ&pg=PT197&dq=Kelvin+Tan+%E2%80%93+university+teachers%E2%80%99+conceptions+of+self-assessment&hl=en&sa=X&ei=sQnNVPSYBoHggwSi2YKQCg&ved=0CDoQ6AEwAg#v=onepage&q=Kelvin%20Tan%20%E2%80%93%20university%20teachers%E2%80%99%20conceptions%20of%20self-assessment&f=false>

Haywood, A. M., Shaw, M. D., Nelson Laird T. F., & Col, E. R., (2009). Relationship between faculty perceptions of institutional participation in assessment and faculty practices of Assessment. Retrieved February 1, 2015, from <http://cpr.iub.edu/uploads/AERA11-Paper-FacultyAssessment-FINAL.pdf>

Hemming, H., (2000). Encouraging critical thinking: "But ... what does that mean?"

*McGill Journal of Education*, 35(2), 173-186.

Henry, R., (2003). Leadership at every level: Appreciative inquiry in education. Johns Hopkins School of Education. Retrieved February 1, 2015, from

<http://education.jhu.edu/PD/newhorizons/Transforming%20Education/Leadership%20in%20Education/Leadership%20at%20Every%20Level/>

Henson, K., (2003). Foundations for learner-centered education: A knowledge

base. *Education*, 124(1), 5-16. Retrieved February 1, 2015, from ProQuest Education Journals.

Hernandez, C. A., & (2010) Getting grounded: using Glasserian Grounded theory to conduct nursing research (Abstract). Retrieved February 1, 2015, from

<http://www.ncbi.nlm.nih.gov/pubmed/20420098>

- Hernandez C. A., & Andrews, T., (2012). Commentary on “Constructing New Theory for Identifying Students with Emotional Disturbance”. Retrieved February 1, 2015, from <http://groundedtheoryreview.com/wp-content/uploads/2012/06/CommentaryVol1111.pdf>
- Hewitt, T., (2006). *Understanding and shaping curriculum: What we teach and why*. Thousand Oaks, CA: Sage Publications.
- Hidden Curriculum (2014). The glossary of education reform. Retrieved June 4, 2016, from <http://edglossary.org/hidden-curriculum>
- Hirose, S., (1992). Critical thinking in community colleges. *ERIC Digest*. Retrieved February 1, 2015, from ERIC database. (ERIC Document Reproduction Service No. ED348128)
- Holloway, K., (2003). Tools for schools: A measure of concern. National Staff Development Council. Retrieved February 1, 2015, from [www.nsd.org/members/tools/tools2-03.pdf](http://www.nsd.org/members/tools/tools2-03.pdf)
- Hughes, K. L., & Scott-Clayton, J., (2011). Assessing developmental assessment in community colleges (Assessment of Evidence Series). Retrieved February 1, 2015, from <http://ccrc.tc.columbia.edu/publications/assessing-developmental-assessment.html>
- Hutchings, P., (2010). Opening doors to faculty involvement: National Institute for Learning Outcomes Assessment. Retrieved May 10, 2016, from <http://www.learningoutcomeassessment.org/documents/PatHutchings.pdf>
- Introduction to SPSS. UCLA: Academic Technology Services. Statistical Consulting Group. Retrieved February 1, 2015, from <http://www.ats.ucla.edu/stat/spss/whatstat/whatstat.htm> (Accessed August 26th 2013)
- Jacoby, D., (2006). Effects of part-time faculty in adult and vocational education. *Journal of Higher Education*, 77(6), 1081-1103.



- Joyce, B., Weil, M., & Calhoun, E., (2009). *Models of teaching*. Boston: Pearson Education, Inc.
- Keim, M., & Biletzky, P., (1999). Teaching methods used by part-time community college faculty. *Community College Journal of Research & Practice*, 23(8), 727-737.  
Retrieved February 1, 2015, from Academic Search Premier database.
- Klein, S., Kuh, G., Chun, M., Hamilton, L., & Shavelson, R., (2005). An approach to measuring cognitive outcomes across higher-education institutions. *Journal of Higher Education*, 46, No. 3, 251-276. Retrieved February 1, 2015, from <http://www.oneonta.edu/academics/senate/documents/Research%20in%20Higher%20Education%20Article%20%28May%202005%29.pdf>
- King, A., (2002). Structuring peer interaction to promote high-level cognitive processing. *Theory into Practice*, 41(1), 33. Retrieved February 1, 2015, from ProQuest Education Journals database.
- King, P. M., & Kitchener, K. S., (1994). *Developing reflective judgment: Understanding and promoting intellectual growth and critical thinking in adolescents and adults*. San Francisco, CA: Jossey-Bass.
- Knight, P., (2006). High stakes assessment – UK schools (Assessment, learning and employability). A society for research into Higher Education, McGraw-Hill International, 2003.
- Lei, S., (2008). Assessment techniques of instructors in two community colleges in a state-wide system. *Education*, 128(3), 392-411. Retrieved February 1, 2015, from ProQuest Education Journals database.
- Levin, J., (2000). The revised institution: The community college mission at the end of

- the twentieth century. *Community College Review*, 28(2), 1. Retrieved February 1, 2015, from ProQuest Education Journals database.
- Lombardi, M., & Oblinger, D. (2008). *Making the grade: The role of assessment in authentic learning*. (ELI Paper No. 1:2008). Boulder, CO: EDUCAUSE Learning Initiative. Retrieved February 1, 2015, from <http://net.educause.edu/ir/library/pdf/ELI3019.pdf>
- Lorsbach, A., & Tobin, K. (1997). Constructivism as a referent for science teaching. Retrieved February 1, 2015, from <http://www.exploratorium.edu/IFI/resources/research/constructivism.html>
- Lund, J., (1997). Authentic assessment: Its development and applications. *Journal of Physical Education, Recreation and Dance*. Vol. 68, Iss.7: pg. 25. Retrieved February 1, 2015, from <http://ezproxy.marshall.edu:2065/pqdweb?index=159&sid=1&srchmode=1&vinst=PRO>  
[D&...](#)
- Lutz, S., & Huitt, W., (2004). Connecting cognitive development and constructivism: Implications from theory for instruction and assessment. *Constructivism in the Human Sciences*, 9(1), 67-90. Retrieved February 1, 2015, from ProQuest Psychology Journals database.
- Marquardt, M., & Waddill, D., (2004). The power of learning in action learning: A conceptual analysis of how the five schools of adult learning theories are incorporated within the practice of action learning. *Action Learning: Research and Practice*, 1(2), 185–202.
- McCarthy, J., & Anderson, L., (2000). Active learning techniques versus traditional

- teaching styles: Two experiments from history and political science. *Innovative Higher Education*, 24(4), 279-294. Retrieved February 1, 2015, from Academic Search Premier database.
- McConnell, D., Steer, D., & Owens, K., (2003). Assessment and active learning strategies for introductory geology courses. *Journal of Geoscience Education*, 51(2), 205. Retrieved February 1, 2015, from ProQuest Education Journals.
- McDowell, L., (2002). Students and innovative assessment. Retrieved February 1, 2015, from [http://www.heacademy.ac.uk/assets/documents/resources/database/id431\\_students\\_and\\_innovative\\_assessment.pdf](http://www.heacademy.ac.uk/assets/documents/resources/database/id431_students_and_innovative_assessment.pdf)
- McMillan, J. H. and Hearn, J., (2008). Student self-assessment: The key to stronger student motivation and higher achievement. Retrieved June 4, 2016, from [http://www.eric.edu.gov?ERICDocs2sql/content\\_storage\\_01/0000019b/80/41/9e/80.pdf](http://www.eric.edu.gov?ERICDocs2sql/content_storage_01/0000019b/80/41/9e/80.pdf)
- McNamara, J. F., (1994). Surveys and experiments in education research. Ethical Issues. Retrieved September, 22, 2014, from <http://dwb4.unl.edu/Diss/Hardy/chapter3.pdf>
- McPhearson, M., & Schapiro, O., (2007). Forum for the future of higher education. Cambridge Mass. Retrieved February 1, 2015, from <http://net.educause.edu/ir/library/pdf/ff0707s.pdf>
- Meyers, C., (1986). *Teaching students to think critically*. San Francisco: Jossey-Bass.
- Mien S., Filip D., & Eduardo C., (2003). Optimizing new modes of assessment: In search of qualities and standards. *Innovation and Change in Professional Education*. Kluwer Academic Publishers. New York, NY.
- Mitchell, M. L., & Jolley, J. M., (2007). *Research Design Explained* (6th ed.). USA: Thomson Wadsworth.

- Morris, R., (2001). Drama and authentic assessment in a social studies classroom. *Social Studies*, 92(1), 41. Retrieved February 1, 2015, from Academic Search Premier database.
- Mueller, J. F., (2014). Authentic assessment toolbox. Retrieved February 1, 2015, from <http://jfmuellder.faculty.noctrl.edu/toolbox>
- Mundhenk, R., (2004). Communities of assessment. *Change*, 36(6), 36-41. Retrieved February 1, 2015, from ProQuest Education Journals database.
- Neuby, B., (2010). Inquiry teaching in college classroom. *The Journal of Effective Teaching*, 10(1), 10 – 21. Retrieved February 1, 2015, from [http://uncw.edu/cte/et/articles/Vol10\\_1/Neuby.pdf](http://uncw.edu/cte/et/articles/Vol10_1/Neuby.pdf)
- Nulty, D., D. (2008) Assessment and Evaluation in Higher Education. Vol. 33, No. 3. Pp. 301 – 314. Retrieved February 29, 2016, from <http://www.uaf.edu/files/uafgov/fsadmin-nulty5-19-10.pdf>
- Nunley, C., Bers, T., & Manning, T., (2011). Learning outcomes assessment in community colleges. National Institute for Learning Outcomes Assessment. Retrieved February 1, 2015, from <http://www.learningoutcomeassessment.org/documents/communitycollege.pdf>
- Palmer, S. (2004). Authenticity in assessment: reflecting undergraduate study and professional practice. *European Journal of Engineering Education*, 29(2), 193-202. Retrieved February 1, 2015, from Academic Search Premier database.
- Palomba, Catherine A., Banta, Trudy W., (1999). Assessment essentials: Planning, implementing, and improving assessment in higher education. Higher and Adult Education Series. Eric

- Paul, R., (2004). *The state of critical thinking today*. Dillon Beach, CA: Foundation for Critical Thinking, Retrieved February 1, 2015, from <http://www.criticalthinking.org/pages/the-state-of-critical-thinking-today/523>
- Paul, R., & Elder, L., (2005). Critical thinking competency standards. Retrieved September 22, 2014, from <http://www.udlap.mx/promueve/ciedd/CR/pensamiento/criticalthinkingcompetencies.pdf>
- Payne, T., Herndon, S., McWaine, L., & Major, C., (2002). Community college faculty rewards: Expectations and incentives. *The Community College Enterprise*, 8(1), 61. Retrieved April 10, 2016, from ProQuest Education Journals database.
- Perera, A. M. B., & Morgan, J. E., (2010). Formative assessment: Preliminary observations & student perceptions. Retrieved February 1, 2015, from <http://www.bioscience.heacademy.ac.uk/ftp/events/repforum10/perera.pdf>
- Pierce, J. W., & Kalkman, D. L., (2003). Applying learner-centered principles in teacher education. Retrieved February 1, 2015, from ERIC <http://eric.ed.gov/?id=EJ677615>
- Prestidge, P., & Glaser, L. (2000). Authentic assessment: Employing appropriate tools for evaluating students' work in 21st-century. *Intervention in School & Clinic*, 35(3), 178. Retrieved February 1, 2015, from Academic Search Premier database.
- Rushton, A., (2005). Formative assessment: a key to deep learning? *Medical Teacher*, 27(6), 509-513. Retrieved February 1, 2015, from Academic Search Premier database.
- Rwanamiza, E., (2008). Assessment for quality education and inherent challenges to attaining

- the standards. Retrieved September 24, 2016, from [http://www.hec.gov.rw/IMG/pdf/Assessment\\_for\\_Quality\\_Education\\_and\\_Inherent\\_Challenges\\_to\\_Ataining\\_the\\_Standards\\_1\\_.pdf](http://www.hec.gov.rw/IMG/pdf/Assessment_for_Quality_Education_and_Inherent_Challenges_to_Ataining_the_Standards_1_.pdf).
- Schuetz, P., (2008). Adjunct faculty in community colleges: An academic administrator's guide to recruiting, supporting, and retaining great teachers. *Community College Review*, 36(2), 160-162. Retrieved February 1, 2015, from ProQuest Education Journals database.
- Shmidt, P., (2010). Conditions imposed on part-time adjuncts threaten quality of teacher Researchers Say. *The Chronicle of Higher Education*.
- Snyder, G. L., & Snyder, M., (2008). Teaching critical thinking and problem-solving skills. *Delta Pi Epsilon Journal*, 50(2), 90-99. Retrieved [http://www.acteonline.org/uploadedFiles/About\\_CTE/files/Teaching%20Critical%20Thinking%20and%20Problem%20Solving%20Skills.pdf](http://www.acteonline.org/uploadedFiles/About_CTE/files/Teaching%20Critical%20Thinking%20and%20Problem%20Solving%20Skills.pdf)
- Snider, J., & Willen, L., (2011). In global education race, US is falling behind. Retrieved from [http://hechingerreport.org/content/in-global-education-race-u-s-is-falling-behind\\_6525/](http://hechingerreport.org/content/in-global-education-race-u-s-is-falling-behind_6525/)
- Somerville. J. A., (2011). Capacity for meaningful learning assessment in community colleges. Retrieved from <http://jasomerville.com/wp-content/uploads/2011/08/CapacityMeaningfulLearningAssessmentBook20110711BookFormat1.pdf>
- Spelling, M., (2006). Spellings Commission Report, (2006). A test of leadership. Charting the future of U.S. Higher Education. Retrieved February 1, 2015, from <http://www2.ed.gov/about/bdscomm/list/hiedfuture/reports/pre-pub-report.pdf>
- Sternberg, R. J., (2008). Excellence for all. *Educational Leadership*. 66(2), 14-19. Retrieved

September 22, 2014, from <http://www.ascd.org/publications/educational-leadership/oct08/vol66/num02/Excellence-for-All.aspx>.

Stone, B., (2004). Teaching, learning and constructivism. Retrieved February 1, 2015, from [http://docs.google.com/viewer?a=v&q=cache:2OSP9katZdAJ:https://www.msu.edu/user/stonebre/Teaching%2520learning%2520and%2520constructivism.doc+Caution:+constructivism+ahead&hl=en&gl=us&pid=bl&srcid=ADGEESjrrpY\\_k8J2l3awKE2RLzO9y8cKpf\\_cpVJDKNSCtOyNtDZ4XBOIroK59\\_B\\_VZZ6xbAxS7Pt6r5aPOxdhC9EztRYMUQH0pUMpMMd\\_Tky4RjfP28wV6qrooGYosX7D5nOhX1n\\_gdC&sig=AHIEtbRcGsJMUarf1UvB5h7KE0bkru5pcw](http://docs.google.com/viewer?a=v&q=cache:2OSP9katZdAJ:https://www.msu.edu/user/stonebre/Teaching%2520learning%2520and%2520constructivism.doc+Caution:+constructivism+ahead&hl=en&gl=us&pid=bl&srcid=ADGEESjrrpY_k8J2l3awKE2RLzO9y8cKpf_cpVJDKNSCtOyNtDZ4XBOIroK59_B_VZZ6xbAxS7Pt6r5aPOxdhC9EztRYMUQH0pUMpMMd_Tky4RjfP28wV6qrooGYosX7D5nOhX1n_gdC&sig=AHIEtbRcGsJMUarf1UvB5h7KE0bkru5pcw)

Syed, M., Azmitia, M., and Cooper, C. R., (2011). Identity and academic success among underrepresented ethnic minorities: An interdisciplinary review and integration. *Journal of Social Issues*, Vol. 67, No. 3, p. 442 – 468. Retrieved February 1, 2015, from <http://bridgingworlds.ucsc.edu/docs-pdfs/Syed,%20Azmitia,%20and%20Cooper%202011.pdf>

Tan, K., (2006). Understanding student self-assessment in terms of learning, grading and empowerment. A paper presented at IAEA conference. Retrieved April 10, 2016, from [http://www.iaea.info/documents/paper\\_1162a20a01.pdf](http://www.iaea.info/documents/paper_1162a20a01.pdf)

Tanner, D., (2001). Authentic assessment: A solution, or part of the problem? *High School Journal*, 85(1), 24. Retrieved February 1, 2015, from Academic Search Premier database.

Towers, R., (2006). Health, work, and retirement survey. Summary report for the 2006 data wave. Retrieved April 10, 2016, from the website [http://hwr.massey.ac.nz/resources/methodology\\_towers.pdf](http://hwr.massey.ac.nz/resources/methodology_towers.pdf)

- Twombly, S., (2001). Honored but invisible: An inside look at teaching in community colleges. *The Journal of Higher Education*, 72(3), 379-383. Retrieved February 1, 2015, from ProQuest Education Journals database.
- Twombly, S., & Townsend, B., (2008). Community college faculty: What we know and need to know. *Community College Review*, 36(1), 5-24. Retrieved February 1, 2015, from ProQuest Education Journals database.
- Vega, Q., & Tayler, M., (2005). Incorporating course content while fostering a more learner-centered environment. *College Teaching*, 53(2), 83-86.
- Walden University; The research center (n.d.). Grounded Theory research tutorial. Retrieved February 1, 2015, from [http://researchcenter.waldenu.edu/Research\\_Tutorials/Grounded\\_Theory\\_Research/containter.html?source=contents.xml](http://researchcenter.waldenu.edu/Research_Tutorials/Grounded_Theory_Research/containter.html?source=contents.xml)
- Walloch, J., (2006). Assessment practices in the nursing classroom: An exploration of educators' assessment of students. *Dissertation Abstracts International*, 67 (09). (UMI No. 3233950).
- Walker, T., & Jehlen, A., (2007). Multiple measure momentum: Support grows for scrapping No Child Left Behind's reliance on one-size-fits-all tests. *NEA Today*, 26(2), 27. Retrieved September 22, 2014, from <http://www.nea.org/home/11284.htm>
- Warren, L., (2006). Information literacy in community colleges: Focused on learning. *Reference & User Services Quarterly*, 45(4), 297-303.
- Watering, G., Gijbels, D., Dochy, F., & Rijt, J., (2008). Students' assessment preferences, perceptions of assessment and their relationships to study results. *Higher Education* 56: 645 - 658



Weimer, M., (2002). *Learner-centered teaching: Five key changes to practice*. San Francisco: Jossey-Bass.

Williams, J. L., (2013). Faculty engagement with learning outcomes assessment: A study of public two-year colleges in Colorado.

[http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=10&ved=0CGsQFjAJ&url=http%3A%2F%2Fdigitaldu.coalliance.org%2Ffedora%2Frepository%2Fobject\\_download%2Fcodu%253A66907%2FWilliams\\_denver\\_0061D\\_10886.pdf%2FWilliams\\_denver\\_0061D\\_10886.pdf&ei=ISPNVlrLloKigwT9ioOgCw&usg=AFQjCNGi7TvwikRb\\_C02fWp3FulGQUlboA&bvm=bv.85076809,d.eXY](http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=10&ved=0CGsQFjAJ&url=http%3A%2F%2Fdigitaldu.coalliance.org%2Ffedora%2Frepository%2Fobject_download%2Fcodu%253A66907%2FWilliams_denver_0061D_10886.pdf%2FWilliams_denver_0061D_10886.pdf&ei=ISPNVlrLloKigwT9ioOgCw&usg=AFQjCNGi7TvwikRb_C02fWp3FulGQUlboA&bvm=bv.85076809,d.eXY)

Wilson, C. and Browning, B., (2004). An assessment framework for the community college. Measuring student learning and achievement as a means of demonstrating institutional effectiveness. Retrieved February 1, 2015, from <http://league.org/publication/whitepapers/0804.html>

Wimmer, D. W., & Dominick, J. R., (2008). Sample size calculator. Retrieved April 10, 2016, from <http://www.rogerwimmer.com/mmr9e/samplesizecalculator.htm>

Woolfolk, A., (2007). *Educational Psychology*. Boston: Pearson Education.

## APPENDIX A

### Permission to use and modify survey

**From:** Sarah Calveric [mailto:[scalveric@hcps4.hanover.k12.va.us](mailto:scalveric@hcps4.hanover.k12.va.us)]

**Sent:** Thursday, April 26, 2012 3:09 PM

**To:** Joycie R. Wawiye

**Subject:** RE: Survey use permission

Good afternoon! Thank you for contacting me regarding the survey. I approve of your changes and am comfortable with you utilizing the instrument. There is no need to pay a usage fee! Please just send me the results of your study upon completion. It will be interesting to review higher education findings. Best of luck!

Sarah

Sarah Calveric, Ph.D.

Principal, Cold Harbor E.S.

(804) 723-3620

## APPENDIX B

### SURVEY COVER LETTER

Survey of Classroom Assessment Practices of Community College faculty

**Identification of Researcher:** This research is being done by Ms. Joycie Wawiye, Marshall University. This study is on partial fulfillment for an Ed.D doctorate with a major emphasis on Curriculum and instruction.

**Purpose of the Study:** The purpose of this study is to determine your perceptions about level of importance and integration of selected assessment practices. This will be done through Survey Monkey (link provided below) that you can complete.

**Request for Participation:** You are invited to participate in this study on *Assessment Beliefs and Practices of Community College Faculty*. It is your decision whether you would like to participate. If you decide not to participate, you will not be penalized in any way. You can decide to stop your participation at any time without penalty. You may skip any questions on the survey that you do not wish to answer. Upon your completion of the survey, if you decide you did not want to participate, you do not have to submit your information. Once you submit your responses we won't know what data is yours.

**Exclusions:** You must be at least 18 years of age to participate in this study. You must be a full-time faculty member at one of the West Virginia community colleges to participate.

**Description of Research Method:** The survey will take approximately 15-25 minutes at most to complete. You will be given a short demographics questionnaire. Following this, you will be presented with 26 items representing assessment practices for you to rate level of importance and level of integration in your instructional routine. Due to the nature of this study, we will be unable to give you individual results because the data are confidential.

**Privacy:** All of the information we collect will be confidential. No identifying information will be collected that can be tied directly to you.

**Explanation of Risks:** The risks associated with participating in this study are similar to the risks of everyday life.

**Explanation of Benefits:** You will benefit from participating in this study by being part of a study that adds to the body of knowledge about assessment practices of community college faculty

**Questions:** If you have any questions about this study, please free to contact me at [jwawiye@newriver.edu](mailto:jwawiye@newriver.edu) or at 304 929 5467.

**INFORMED CONSENT:**

If you would like to participate, please check the YES box below and proceed to the survey itself. If you do not wish to participate, please check the NO box below and you may discontinue at this time.

I have read and understand the explanation provided to me. I have had all my questions answered to my satisfaction, and I voluntarily agree to participate in this study.

I consent to participate in this study     Yes                       No

Thank you very much for your time and cooperation.

Here is a link to the survey:

<https://www.surveymonkey.com/r/5CDR8S3>

This link is uniquely tied to this survey and your email address. Please do not forward this message.

Thanks for your participation!

Please note: If you do not wish to receive further emails from us, please click the link to opt out within the survey, and you will be automatically removed from our mailing list.

Sincerely

Joycie R. Wawiye  
Associate professor of Biology  
New River Community and Technical College  
jwawiye@newriver.edu

**APPENDIX C**

**COMMUNITY COLLEGE FACULTY SURVEY OF ASSESSMENT BELIEFS AND PRACTICES**

**PART A.** Please mark an “X” in the space provided for your choices for each of the following items.

1. Which community college department are you affiliated with?
 

<input type="checkbox"/> Business and Computer Science	<input type="checkbox"/> Humanities, Social and Behavioral Sciences
<input type="checkbox"/> Communications	<input type="checkbox"/> Mathematics and Natural Sciences
<input type="checkbox"/> Health Sciences	<input type="checkbox"/> Technical Studies and Workforce Education
  
2. What is your gender?
 

<input type="checkbox"/> Male.	<input type="checkbox"/> Female
--------------------------------	---------------------------------
  
3. Indicate your years of teaching experience at the community college level.
 

<input type="checkbox"/> Less than 3	<input type="checkbox"/> between 4 and 10	<input type="checkbox"/> between 11 and 20	<input type="checkbox"/> more than 20
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4. Which of the following best describes your academic preparation?
 

<input type="checkbox"/> Bachelor’s degree	<input type="checkbox"/> Master’s degree +
<input type="checkbox"/> Bachelor’s degree+	<input type="checkbox"/> Doctorate
<input type="checkbox"/> Master’s degree	

+ Refers to the completion of 15 or more graduate level credits beyond the degree

\*\*\*\*\*

**PART B.** Following are 26 items representing assessment practices. Use the *Level of Importance* column to rate how important each of these are for the proficient assessment of student learning. Use the *Integration of Practice* column to rate how often you integrate each practice into your instructional routines. In each case, choose your response by **CIRCLING** the appropriate number.

Rating Scales

<u>Level of Importance</u>	<u>Level of Integration</u>
1- Extremely Important	1- Very Frequently
2- Important	2- Frequently
3- Some	3- Occasionally
4- Little	4- Seldom
5- Unimportant	5- Never

Item Statements	Level of Importance	Level of Integration of Practice
<b>In each case, choose your response by circling the appropriate number.</b>		
1. Performance assessment (e.g. Labs, demonstrations, simulations, critiques, research projects, debates, interviews, checklists, observations, in-class presentations and speeches)	1   2   3   4   5	1   2   3   4   5
2. Projects completed by individual students	1   2   3   4   5	1   2   3   4   5
3. Small group, problem solving tasks in a given content field	1   2   3   4   5	1   2   3   4   5

<b>4.</b> High stakes, standardized tests.	1 2 3 4 5	1 2 3 4 5
<b>5.</b> Student self-evaluation and self-grading.	1 2 3 4 5	1 2 3 4 5
<b>6.</b> Oral presentations including story or event retelling, retelling the main idea, or selected details of lesson experienced via listening or reading.	1 2 3 4 5	1 2 3 4 5
<b>7.</b> Standards based grading	1 2 3 4 5	1 2 3 4 5
<b>8.</b> Normal curve grading	1 2 3 4 5	1 2 3 4 5
<b>9.</b> Test items requiring higher order thinking included on tests.	1 2 3 4 5	1 2 3 4 5
<b>10.</b> Instructor created rubrics to assess student performance	1 2 3 4 5	1 2 3 4 5
<b>11.</b> Publisher's pre-established content rubrics with criteria keyed to student outcomes to be accomplished	1 2 3 4 5	1 2 3 4 5
<b>12.</b> Pre and Post Testing evaluation	1 2 3 4 5	1 2 3 4 5
<b>13.</b> Grading conferences with students	1 2 3 4 5	1 2 3 4 5
<b>14.</b> Portfolio assessment of student work to demonstrate overall growth in content area.	1 2 3 4 5	1 2 3 4 5
<b>15.</b> Assessing content learning with teacher-made multiple choice tests.	1 2 3 4 5	1 2 3 4 5
<b>16.</b> Content learning assessment with teacher-made essay test items	1 2 3 4 5	1 2 3 4 5
<b>17.</b> Content learning assessment with teacher made multiple choice tests, including true-false, matching, and completion items.	1 2 3 4 5	1 2 3 4 5
<b>18.</b> Weekly quizzes	1 2 3 4 5	1 2 3 4 5
<b>19.</b> Term paper or related written assignments	1 2 3 4 5	1 2 3 4 5
<b>20.</b> Tests provided by publishers to teachers (e.g. in instructional guides or manuals)	1 2 3 4 5	1 2 3 4 5
<b>21.</b> "Departmental" or "Program" Final Exam	1 2 3 4 5	1 2 3 4 5
<b>22.</b> Student exhibits based on thematic concepts in a content field such as posters.	1 2 3 4 5	1 2 3 4 5
<b>23.</b> Completing student licensure exams in a given content field	1 2 3 4 5	1 2 3 4 5
<b>24.</b> Providing grading or scoring rubrics for assignments to students beforehand.	1 2 3 4 5	1 2 3 4 5

<b>25.</b> Specialized skills assessment such as keyboarding, graphing, calculating, information literacy.	<b>1 2 3 4 5</b>	<b>1 2 3 4 5</b>
<b>26.</b> Teacher assessment of factual information and concepts via in-class discussions and questioning.	<b>1 2 3 4 5</b>	<b>1 2 3 4 5</b>

**PART C: OPEN RESPONSE**

*Please feel free to write in specific assessment practices that you believe to be important and useful but which are not specifically noted above*

## **APPENDIX D**

### **IRB BOARD ACTION**

Please note that Marshall University Institutional Review Board #2 (Social/Behavioral) has taken the following action on IRBNet:

Project Title: [781659-1] Survey of Classroom Assessment Practices of Community College  
Faculty

Principal Investigator: Samuel Securro

Submission Type: New Project

Date Submitted: August 25, 2015

Action: APPROVED

Effective Date: August 31, 2015

Review Type: Exempt Review

Should you have any questions you may contact Bruce Day, CIP at [day50@marshall.edu](mailto:day50@marshall.edu).

Thank you,  
The IRBNet Support Team

[www.irbnet.org](http://www.irbnet.org)



## APPENDIX E

### *Authentic and Conventional (traditional) Assessment Tools*

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#### Assessment category and code

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##### Authentic Assessment tools

1. Performance assessment e.g. labs, demonstrations, simulations etc. (*Performance*)
2. Student self-evaluation and self-grading (*Student self-evaluation/grading*)
3. Oral presentations including story or event retelling of lesson experience etc. (*Oral presentation*)
4. Test items requiring higher order thinking included in tests (*Test items-higher order thinking*)
5. Instructor created rubric to assess student performance (*Instructor created rubric*)
6. Publishers' pre-established content rubric with criteria keyed to student outcomes to be accomplished (*Publishers' rubric*)
7. Grading conference with students (*Grading conference*)
8. Portfolio assessment of student work to demonstrate overall growth in content area (*Portfolio*)
9. Content learning assessment with teacher-made essay test items (*Teacher made essay test*)
10. Content learning assessment with teacher made multiple choice tests, including true-false, matching, and completion items (*Teacher made tests with varied question types*)
11. Term paper or related written assignments (*Term paper*)
12. Student exhibits based on thematic concepts in a content field such as posters (*Student exhibits*)
13. Providing grading or scoring rubrics for assignments to students beforehand (*rubric to students first*)

##### *Conventional (traditional) assessment tools*

1. Projects completed by individual students (*Projects*)
2. Small groups, problem solving tasks in a given field (*Small groups*)
3. High stakes standardized tests (*High stakes tests*)
4. Standards based grading (*Standards based*)
5. Normal curve grading (*Normal curve*)
6. Pre and post testing evaluation (*Pre and Posttest*)
7. Assessing content learning with teacher-made multiple choice tests (*Teacher made multiple tests*)
8. Weekly quizzes (*Weekly quizzes*)
9. Tests provided by publishers to teachers (e.g. in instructional guides or manuals) (*Publishers' tests*)

10. “Departmental” or “program” final exam (*Dept./program tests*)
  11. Completing student licensure exams in a given content field (*Licensure exams*)
  12. Specialized skills assessment such as keyboarding, graphing, calculating, information literacy (*Specialized skills*)
  13. Teacher assessment of factual information and concepts via in-class discussions and questionings (*In class discussions and questions*)
-

**APPENDIX F**  
**Perceptions of Importance of Authentic Assessment**

Practices	GENDER		AGE		Years of Teaching at Community College Level		Years of Teaching Outside of Community College		Academic Preparation	
	Mean Rank	Chi-Square df Asym. Sig.	Mean Rank	Chi-Square df Asym. Sig.	Mean Rank	Chi-Square df Asym. Sig.	Mean Rank	Chi-Square df Asym. Sig.	Mean Rank	Chi-Square df Asym. Sig.
Performance	81.38 93.53	3.347 1 0.067	92.06 94.55 89.56 66.69	4.675 3 0.197	84.63 94.54 82.66 91.70	2.860 3 0.414	96.86 89.93 77.84 93.00 73.55	8.215 4 0.084	96.76 96.76 97.05 91.83 78.63 92.35	5.486 5 0.359
Student self-evaluation or grading	<b>74.55</b> 96.91	8.335 1 <b>0.004</b>	103.29 92.68 85.97 86.31	2.153 3 0.541	88.84 94.30 80.35 92.22	2.724 3 0.436	83.88 76.13 92.90 92.70 94.38	3.622 4 0.460	106.79 70.32 101.95 88.16 85.21 92.67	6.105 5 0.296
Oral presentations	88.22 89.38	0.023 1 0.880	79.29 91.98 88.90 91.42	0.903 3 0.825	93.34 82.76 87.75 88.98	1.070 3 0.784	85.53 <b>71.33</b> 92.77 112.90 79.05	11.326 4 <b>0.023</b>	101.25 82.50 107.20 73.74 90.27 94.53	7.440 5 0.190
Test items for higher order thinking	<b>76.81</b> 95.79	6.503 1 <b>0.011</b>	84.12 86.20 92.35 87.23	0.869 3 0.833	86.38 91.37 89.25 79.82	1.169 3 0.760	91.29 85.17 85.70 87.68 82.25	0.759 4 0.944	72.38 84.35 99.95 92.04 90.37 90.42	3.156 5 0.676
Instructor created rubric	<b>72.05</b> 98.15	12.229 1 <b>0.000</b>	71.85 84.05 96.70 78.31	6.146 3 0.105	85.04 95.32 84.86 83.98	1.997 3 0.573	80.99 92.74 82.04 98.90 91.40	3.520 4 0.475	102.76 65.91 81.15 95.06 82.72 98.44	9.150 5 0.103
Publishers' rubric	85.40 91.53	0.617 1 0.432	76.79 95.74 90.45 75.31	3.062 3 0.382	94.01 93.04 87.54 70.08	4.578 3 0.205	92.22 94.26 79.41 95.55 70.80	5.583 4 0.233	117.32 83.85 90.25 88.72 90.55 75.61	8.714 5 0.121

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**Perceptions of Importance of Authentic Assessment**

Practices	GENDER 1= Male 2= Female		AGE 1=35 or younger 2=36 to 50 years 3=51 to 65 years 4=66 or older		Years of Teaching at Community College Level 1=Less than 3 years 2=Between 4 & 10 3=Between 11 & 20 4=More than 20		Years of Teaching Outside of Community College 1=None 2=Less than 3 years 3=Between 4 & 10 4=Between 11 & 20 5=More than 20		Academic Preparation 1=Less than Bachelor's 2=Bachelor's Degree 3=Bachelor's Degree+ 4=Master's Degree 5=Master's Degree+ 6=Doctorate Degree	
	Mean Rank	Chi-Square df Asym. Sig.	Mean Rank	Chi-Square df Asym. Sig.	Mean Rank	Chi-Square df Asym. Sig.	Mean Rank	Chi-Square df Asym. Sig.	Mean Rank	Chi-Square df Asym. Sig.
Grading conference	<b>74.35</b> 97.01	8.438 1 <b>0.004</b>	85.06 80.89 97.50 66.85	7.070 3 0.070	87.21 88.25 88.26 87.90	0.013 3 1.000	86.02 83.51 95.79 73.23 88.35	3.534 4 0.473	80.38 93.47 91.75 86.60 88.11 94.32	1.254 5 0.940
Portfolio	<b>74.42</b> 95.60	7.432 1 0.006	98.12 87.70 89.78 69.38	2.749 3 0.432	99.09 89.83 84.30 71.52	5.100 3 0.165	82.29 85.65 96.25 75.73 90.05	3.495 4 0.479	103.53 79.82 90.40 87.00 84.49 90.26	2.642 5 0.755
Teacher made essay test questions	<b>77.14</b> 93.25	4.451 1 <b>0.035</b>	69.44 91.42 90.20 81.58	3.165 3 0.367	84.57 81.12 90.99 89.74	1.450 3 0.694	83.23 93.18 83.21 90.43 90.78	1.499 4 0.827	75.56 75.31 87.15 83.88 90.98 97.56	4.361 5 0.499
Teacher made test with varied test question types	82.77 91.32	1.240 1 0.266	79.16 90.01 92.64 63.12	5.042 3 0.169	85.34 89.92 86.22 84.96	0.311 3 0.958	91.10 89.01 75.10 97.78 91.10	4.679 4 0.322	92.62 101.24 70.75 88.71 89.34 81.54	3.508 5 0.622
Term paper	79.34 93.00	3.114 1 0.078	82.44 90.48 86.56 103.15	1.690 3 0.639	90.94 78.42 90.30 91.78	2.505 3 0.474	81.77 84.21 96.74 85.58 82.90	2.901 4 0.575	98.50 <b>70.82</b> <b>65.70</b> <b>74.39</b> 96.04 100.79	12.526 5 <b>0.028</b>
Student exhibits	<b>70.95</b> 97.13	11.330 1 <b>0.001</b>	83.09 98.24 87.01 69.65	4.232 3 0.237	109.24 77.66 87.71 <b>74.82</b>	11.083 3 <b>0.011</b>	80.07 90.79 92.57 95.68 75.10	3.824 4 0.430	106.12 89.24 61.00 79.77 86.16 98.50	8.514 5 0.130

**APPENDIX F (Page 3 of 3)**  
**Perceptions of Importance of Authentic Assessment**

	<b>GENDER</b>		<b>AGE</b>		<b>Years of Teaching at Community College Level</b>		<b>Years of Teaching Outside of Community College</b>		<b>Academic Preparation</b>	
	1= Male 2= Female		1=35 or younger 2=36 to 50 years 3=51 to 65 years 4=66 or older		1=Less than 3 years 2=Between 4 & 10 3=Between 11 & 20 4=More than 20		1=None 2=Less than 3 years 3=Between 4 & 10 4=Between 11 & 20 5=More than 20		1=Less than Bachelor's 2=Bachelor's Degree 3=Bachelor's Degree+ 4=Master's Degree 5=Master's Degree+ 6=Doctorate Degree	
<b>Practices</b>	<b>Mean Rank</b>	<b>Chi sq. df. Asym. sig</b>	<b>Mean Rank</b>	<b>Chi sq. df. Asym. sig</b>	<b>Mean Rank</b>	<b>Chi sq. df. Asym. sig</b>	<b>Mean Rank</b>	<b>Chi sq. df. Asym. sig</b>	<b>Mean Rank</b>	<b>Chi sq. df. Asym. sig</b>
Grading or scoring rubric provided to students before hand	<b>66.79</b> 99.17	18.543 1 <b>0.000</b>	91.69 85.18 91.98 70.85	2.702 3 0.440	84.85 90.86 83.98 89.12	0.762 3 0.858	82.87 96.31 84.51 87.48 85.88	2.016 4 0.733	79.15 87.85 83.15 87.15 88.06 94.49	1.436 5 0.920

## APPENDIX G

### Perceptions of Importance of Conventional (Traditional) Assessment

Practices	GENDER		AGE		Years of Teaching at Community College Level		Years of Teaching Outside of Community College		Academic Preparation	
	Mean Rank	Chi-Square df Asym. Sig.	Mean Rank	Chi-Square df Asym. Sig.	Mean Rank	Chi-Square df Asym. Sig.	Mean Rank	Chi-Square df Asym. Sig.	Mean Rank	Chi-Square df Asym. Sig.
Projects	81.98 83.50	0.043 1 0.835	74.70 76.77 86.41 91.50	2.453 3 0.484	75.65 85.10 80.26 88.73	1.656 3 0.647	85.37 76.20 84.70 94.05 74.58	2.967 4 0.563	105.91 81.63 75.38 70.73 78.67 93.19	10.416 5 0.064
Small groups	80.56 84.18	0.243 1 0.622	74.90 92.05 78.70 92.55	3.816 3 0.282	89.29 89.64 75.03 72.33	5.045 3 0.169	90.03 69.97 90.38 87.24 67.89	7.853 4 0.097	96.35 85.80 89.75 81.09 79.77 77.98	2.561 5 0.767
High stakes	82.12 83.43	0.029 1 0.865	62.53 90.21 84.11 71.41	4.801 3 0.187	87.347 9.92 85.22 71.17	2.195 3 0.533	96.88 <b>69.60</b> <b>72.17</b> 89.58 92.42	10.820 4 <b>0.029</b>	100.44 92.00 124.63 80.80 <b>67.61</b> 84.31	15.530 5 <b>0.008</b>
Standards based grading	79.24 84.83	0.588 1 0.443	69.07 78.27 88.27 77.18	3.578 3 0.311	71.54 89.34 80.26 85.90	3.680 3 0.298	89.70 83.04 82.90 76.24 73.34	2.465 4 0.651	95.29 71.63 91.88 87.34 70.21 92.38	9.027 5 0.108
Normal curve grading	86.21 81.44	0.386 1 0.534	82.03 76.21 84.24 102.27	2.965 3 0.397	89.85 79.01 85.41 69.02	3.451 3 0.327	98.50 78.99 79.86 69.53 72.97	8.225 4 0.084	84.71 86.07 73.75 89.21 80.45 76.78	1.864 5 0.868
Pre and post test	80.56 84.19	0.247 1 0.619	85.77 88.39 80.81 75.23	1.319 3 0.725	89.37 81.21 83.71 69.19	3.139 3 0.371	77.53 84.09 87.88 77.76 88.21	1.829 4 0.767	102.74 85.97 83.81 76.21 81.64 79.05	4.776 5 0.444

**APPENDIX G (Page 2 of 3)**

**Perceptions of Importance of Conventional (Traditional) Assessment**

Practices	GENDER		AGE		Years of Teaching at Community College Level		Years of Teaching Outside of Community College		Academic Preparation	
	Mean Rank	Chi-Square df Asym. Sig.	Mean Rank	Chi-Square df Asym. Sig.	Mean Rank	Chi-Square df Asym. Sig.	Mean Rank	Chi-Square df Asym. Sig.	Mean Rank	Chi-Square df Asym. Sig.
Teacher made multiple tests	79.63 84.64	0.461 1 0.497	75.67 86.01 87.05 <b>46.14</b>	8.940 3 <b>0.030</b>	94.62 89.94 <b>73.47</b> <b>67.81</b>	9.030 3 <b>0.029</b>	82.37 94.81 67.97 92.66 88.74	8.825 4 0.066	99.15 93.10 66.25 77.88 83.32 77.20	5.278 5 0.383
Weekly quizzes	75.73 86.54	2.098 1 0.148	86.67 85.67 82.30 72.77	0.854 3 0.836	87.74 90.68 81.66 <b>59.94</b>	10.070 3 <b>0.018</b>	89.22 73.93 85.47 74.82 86.66	3.216 4 0.522	88.32 96.87 108.56 71.18 82.65 80.06	7.238 5 0.204
Publishers' tests	79.20 84.85	0.556 1 0.456	70.10 92.86 79.95 85.14	3.790 3 0.285	87.38 82.10 81.23 75.96	0.935 3 0.817	94.71 70.23 77.50 89.76 83.82	6.925 4 0.140	106.47 91.23 107.13 84.95 <b>65.58</b>	13.566 5 <b>0.019</b>
Department or program tests	80.93 84.01	0.167 1 0.682	78.20 88.11 80.47 89.59	1.271 3 0.736	77.40 84.86 83.26 79.75	0.661 3 0.882	81.88 80.66 77.18 86.50 100.37	3.754 4 0.440	95.24 87.10 112.00 73.78 82.80 76.63	6.968 5 0.223
Licensure exams	<b>72.29</b> 88.21	5.208 1 <b>0.022</b>	73.83 90.67 82.08 71.23	3.151 3 0.369	86.56 81.20 78.18 86.08	1.133 3 0.769	86.78 92.53 79.31 68.66 79.18	4.887 4 0.299	91.41 88.00 107.94 88.81 71.19 79.31	8.873 5 0.114
Specialized skills	77.78 85.54	1.083 1 0.298	88.90 77.49 84.30 87.05	1.115 3 0.773	85.91 85.17 77.89 79.56	1.067 3 0.785	88.57 77.33 85.44 65.24 91.63	5.077 4 0.280	73.71 85.83 90.63 82.39 85.18 79.36	1.353 5 0.929

**APPENDIX G (Page 3 of 3)**

**Perceptions of Importance of Conventional (Traditional) Assessment**

	GENDER		AGE		Years of Teaching at Community College Level		Years of Teaching Outside of Community College		Academic Preparation	
	Mean Rank	Chi sq. df. Asym. sig	Mean Rank	Chi sq. df. Asym. sig	Mean Rank	Chi sq. df. Asym. sig	Mean Rank	Chi sq. df. Asym. sig	Mean Rank	Chi sq. df. Asym. sig
	1= Male 2= Female		1=35 or younger 2=36 to 50 years 3=51 to 65 years 4=66 or older		1=Less than 3 years 2=Between 4 & 10 3=Between 11 & 20 4=More than 20		1=None 2=Less than 3 years 3=Between 4 & 10 4=Between 11 & 20 5=More than 20		1=Less than Bachelor's 2=Bachelor's Degree 3=Bachelor's Degree+ 4=Master's Degree 5=Master's Degree+ 6=Doctorate Degree	
<b>Practices</b>	<b>Mean Rank</b>	<b>Chi sq. df. Asym. sig</b>	<b>Mean Rank</b>	<b>Chi sq. df. Asym. sig</b>	<b>Mean Rank</b>	<b>Chi sq. df. Asym. sig</b>	<b>Mean Rank</b>	<b>Chi sq. df. Asym. sig</b>	<b>Mean Rank</b>	<b>Chi sq. df. Asym. sig</b>
In class discussions and questionings	71.19 88.75	6.005 1 <b>0.014</b>	67.93 92.35 81.05 80.95	4.194 3 0.241	80.53 86.67 84.11 69.63	2.769 3 0.429	78.67 82.90 85.31 87.42 84.00	0.810 4 0.937	77.62 84.57 97.13 82.09 81.96 81.86	1.206 5 0.944



**APPENDIX H**  
**Integration of Authentic Assessment**

Practices	GENDER		AGE		Years of Teaching at Community College Level		Years of Teaching Outside of Community College		Academic Preparation	
	Mean Rank	Chi-Square df Asym. Sig.	Mean Rank	Chi-Square df Asym. Sig.	Mean Rank	Chi-Square df Asym. Sig.	Mean Rank	Chi-Square df Asym. Sig.	Mean Rank	Chi-Square df Asym. Sig.
Performance	68.50 80.19	2.734 1 0.098	64.30 83.68 76.41 57.90	4.396 3 0.222	73.35 78.40 73.30 73.64	0.519 3 0.915	95.73 <b>64.63</b> <b>64.18</b> 85.17 71.06	17.371 4 <b>0.002</b>	91.79 86.57 89.94 75.12 64.99 77.34	7.634 5 0.178
Student self-evaluation or grading	67.54 80.63	3.254 1 0.071	75.50 76.28 78.14 64.00	1.047 3 0.790	74.98 77.56 72.64 75.34	0.375 3 0.945	72.90 75.19 73.68 74.22 96.14	4.609 4 0.330	91.18 72.67 94.19 67.06 70.63 83.15	6.930 5 0.226
Oral presentations	77.19 76.18	0.019 1 0.891	58.35 74.08 77.55 96.05	4.203 3 0.240	74.98 71.96 74.99 81.68	0.834 3 0.841	<b>69.33</b> <b>60.98</b> 83.28 95.25 87.03	11.321 4 <b>0.023</b>	74.43 72.10 96.56 64.72 75.32 85.74	6.392 5 0.270
Test items for higher order thinking	<b>66.08</b> 81.31	4.605 1 <b>0.032</b>	45.20 79.19 79.84 66.60	7.305 3 0.063	66.54 76.91 79.33 69.25	2.312 3 0.510	73.87 78.73 75.61 76.19 81.14	0.531 4 0.970	51.71 70.07 103.00 79.76 75.46 79.24	9.468 5 0.092
Instructor created rubric	67.28 80.75	3.517 1 0.061	49.70 74.23 81.64 68.10	6.156 3 0.104	79.63 80.32 72.85 63.73	3.026 3 0.388	68.36 80.64 74.80 93.44 75.50	5.133 4 0.274	87.32 70.37 59.94 82.71 71.42 77.09	4.112 5 0.533
Publishers' rubric	80.21 74.79	0.536 1 0.464	73.40 76.81 77.81 72.25	0.179 3 0.981	70.77 81.23 77.68 59.32	4.681 3 0.197	92.98 <b>58.44</b> <b>67.22</b> 87.67 79.22	15.567 4 <b>0.004</b>	94.57 97.53 95.50 <b>76.94</b> 69.90 <b>61.57</b>	13.291 5 <b>0.021</b>

**APPENDIX H (Page 2 of 3)**  
**Integration of Authentic Assessment**

Practices	GENDER		AGE		Years of Teaching at Community College Level		Years of Teaching Outside of Community College		Academic Preparation	
	Mean Rank	Chi-Square df Asym. Sig.	Mean Rank	Chi-Square df Asym. Sig.	Mean Rank	Chi-Square df Asym. Sig.	Mean Rank	Chi-Square df Asym. Sig.	Mean Rank	Chi-Square df Asym. Sig.
Grading conference	<b>66.33</b> 81.19	4.062 1 <b>0.044</b>	62.50 73.18 81.89 57.65	4.794 3 0.188	69.19 75.68 79.98 67.41	2.024 3 0.567	79.02 69.02 69.35 88.00 88.56	5.130 4 0.274	63.14 81.90 91.94 76.93 73.26 77.72	3.033 5 0.695
Portfolio	67.42 80.69	3.135 1 0.077	70.10 70.25 81.45 66.80	2.832 3 0.418	78.75 79.94 72.85 65.50	2.113 3 0.549	77.78 71.19 79.87 79.44 72.28	1.037 4 0.904	92.75 82.97 74.25 79.09 69.73 71.84	4.061 5 0.541
Teacher made essay test questions	73.13 78.06	0.446 1 0.504	58.30 79.56 79.39 55.80	4.878 3 0.181	68.33 74.13 82.84 64.59	3.975 3 0.264	77.58 80.48 78.87 74.06 63.89	2.096 4 0.718	60.07 81.77 67.25 70.88 84.96 75.07	5.246 5 0.387
Teacher made test with varied test question types	76.15 76.66	0.005 1 0.944	81.75 80.34 76.33 55.85	2.891 3 0.409	87.73 78.43 70.50 64.89	4.531 3 0.210	81.02 76.09 66.20 82.33 84.06	3.830 4 0.429	95.21 92.90 67.31 65.53 72.66 77.66	8.127 5 0.149
Term paper	70.96 79.06	1.186 1 0.276	70.80 72.52 79.41 74.10	1.004 3 0.800	68.21 75.77 76.28 77.52	0.781 3 0.854	71.78 77.98 83.02 78.31 68.47	2.199 4 0.699	59.79 80.80 57.19 75.60 73.15 89.24	7.352 5 0.196
Student exhibits	69.04 79.94	2.185 1 0.139	73.25 79.14 76.75 65.95	0.856 3 0.836	81.35 82.54 75.19 <b>51.14</b>	9.449 3 <b>0.024</b>	77.80 79.48 67.09 92.61 73.42	4.946 4 0.293	94.00 90.53 73.19 72.06 68.95 76.28	5.987 5 0.308

**APPENDIX H (Page 3 of 3)**  
**Integration of Authentic Assessment**

	GENDER		AGE		Years of Teaching at Community College Level		Years of Teaching Outside of Community College		Academic Preparation	
	Mean Rank	Chi sq. df. Asym. sig	Mean Rank	Chi sq. df. Asym. sig	Mean Rank	Chi sq. df. Asym. sig	Mean Rank	Chi sq. df. Asym. sig	Mean Rank	Chi sq. df. Asym. sig
	1= Male 2= Female		1=35 or younger 2=36 to 50 years 3=51 to 65 years 4=66 or older		1=Less than 3 years 2=Between 4 & 10 3=Between 11 & 20 4=More than 20		1=None 2=Less than 3 years 3=Between 4 & 10 4=Between 11 & 20 5=More than 20		1=Less than Bachelor's 2=Bachelor's Degree 3=Bachelor's Degree+ 4=Master's Degree 5=Master's Degree+ 6=Doctorate Degree	
<b>Practices</b>	<b>Mean Rank</b>	<b>Chi sq. df. Asym. sig</b>	<b>Mean Rank</b>	<b>Chi sq. df. Asym. sig</b>	<b>Mean Rank</b>	<b>Chi sq. df. Asym. sig</b>	<b>Mean Rank</b>	<b>Chi sq. df. Asym. sig</b>	<b>Mean Rank</b>	<b>Chi sq. df. Asym. sig</b>
Grading or scoring rubric provided to students before hand	<b>64.11</b> 82.22	6.130 1 <b>0.013</b>	73.25 78.90 76.63 68.10	0.607 3 0.895	83.79 78.92 71.76 64.95	3.193 3 0.363	72.84 81.58 76.94 80.36 71.36	1.227 4 0.874	72.61 70.23 79.06 72.50 76.07 82.63	1.529 5 0.910

## APPENDIX I

### *Integration of Conventional (Traditional) Assessment*

Practices	GENDER		AGE		Years of Teaching at Community College Level		Years of Teaching Outside of Community College		Academic Preparation	
	Mean Rank	Chi-Square df Asym. Sig.	Mean Rank	Chi-Square df Asym. Sig.	Mean Rank	Chi-Square df Asym. Sig.	Mean Rank	Chi-Square df Asym. Sig.	Mean Rank	Chi-Square df Asym. Sig.
Projects	75.10 77.95	0.157 1 0.692	70.96 73.11 81.24 66.00	2.253 3 0.522	67.63 79.32 78.96 67.43	2.560 3 0.465	69.42 71.97 83.39 81.25 82.47	3.263 4 0.515	94.64 80.57 <b>61.50</b> <b>59.46</b> 78.89 85.12	11.244 5 <b>0.047</b>
Small groups	<b>66.52</b> 82.24	4.744 1 <b>0.029</b>	72.46 83.63 73.87 79.95	1.761 3 0.623	85.37 79.02 70.25 69.00	3.241 3 0.356	73.32 74.30 80.53 70.14 87.55	2.417 4 0.660	91.57 82.36 78.88 74.07 72.65 75.15	2.672 5 0.750
High stakes	81.14 74.93	0.701 1 0.402	80.33 83.32 74.44 68.09	1.781 3 0.619	76.83 72.51 83.05 60.93	4.490 3 0.213	82.51 69.83 66.09 96.67 84.76	8.687 4 0.069	92.18 89.46 108.06 70.59 71.31 70.54	9.472 5 0.092
Standards based grading	73.74 78.63	0.465 1 0.495	63.29 73.49 84.10 <b>50.45</b>	8.494 3 <b>0.037</b>	63.31 74.63 79.45 82.24	3.396 3 0.335	85.81 69.94 67.65 93.47 77.24	7.647 4 0.105	89.96 74.36 108.19 75.71 70.23 73.85	7.376 5 0.194
Normal curve grading	86.23 72.39	3.547 1 0.060	76.38 73.35 77.01 92.18	1.703 3 0.636	92.15 75.11 72.43 63.81	6.016 3 0.111	86.03 76.30 75.84 63.78 74.89	3.532 4 0.473	84.64 85.50 76.69 67.80 83.51 68.66	5.025 5 0.413
Pre and post test	70.15 80.43	1.996 1 0.158	77.17 75.39 78.77 69.45	0.561 3 0.905	78.29 66.20 82.05 76.17	3.885 3 0.274	80.03 67.42 76.89 82.47 82.50	2.498 4 0.645	89.04 94.86 74.63 75.64 72.63 70.46	5.015 5 0.414

**APPENDIX I (Page 2 of 3)**  
**Integration of Conventional (Traditional) Assessment**

Practices	GENDER		AGE		Years of Teaching at Community College Level		Years of Teaching Outside of Community College		Academic Preparation	
	Mean Rank	Chi-Square df Asym. Sig.	Mean Rank	Chi-Square df Asym. Sig.	Mean Rank	Chi-Square df Asym. Sig.	Mean Rank	Chi-Square df Asym. Sig.	Mean Rank	Chi-Square df Asym. Sig.
Teacher made multiple tests	76.80 77.10	0.002 1 0.968	80.67 83.69 77.16 44.95	7.466 3 0.058	88.50 84.44 <b>67.45</b> <b>60.05</b>	9.726 3 <b>0.021</b>	79.37 83.06 72.58 75.50 73.26	1.444 4 0.837	97.46 90.39 73.56 69.81 75.27 71.43	6.450 5 0.265
Weekly quizzes	74.29 78.35	0.307 1 0.579	73.83 77.50 79.97 55.23	3.350 3 0.341	69.08 85.54 73.93 64.62	4.861 3 0.182	83.15 73.47 75.50 67.42 83.05	2.379 4 0.666	75.61 90.71 75.56 66.33 75.96 82.46	4.277 5 0.510
Publishers' tests	80.59 75.21	0.533 1 0.465	75.88 86.77 73.57 65.95	3.355 3 0.314	70.63 82.23 76.87 62.55	3.609 3 0.307	87.19 63.76 72.63 86.86 79.87	6.810 4 0.146	72.39 88.39 92.56 80.63 73.52 69.38	3.849 5 0.571
Department or program tests	81.35 74.82	0.771 1 0.380	67.58 84.81 76.26 61.82	3.367 3 0.338	71.58 79.68 79.88 59.33	4.308 3 0.230	84.14 72.68 68.60 91.00 76.03	4.923 4 0.295	90.43 105.86 107.63 <b>69.59</b> <b>68.60</b> <b>69.40</b>	15.551 5 <b>0.008</b>
Licensure exams	83.97 73.51	2.029 1 0.154	75.08 83.88 75.12 66.27	2.016 3 0.569	81.85 82.41 70.95 63.76	4.190 3 0.242	93.62 73.00 <b>59.48</b> 86.83 81.11	14.664 4 <b>0.005</b>	105.46 110.39 103.50 83.14 <b>60.89</b> <b>59.00</b>	31.541 5 <b>000</b>
Specialized skills	81.35 74.82	0.784 1 0.376	55.92 73.51 81.93 75.41	4.320 3 0.229	65.60 83.25 76.89 66.52	4.087 3 0.252	84.37 71.79 <b>65.95</b> 72.50 100.7 6	10.535 4 <b>0.032</b>	83.14 80.57 95.88 83.46 66.96 73.56	5.542 5 0.353

**APPENDIX I (Page 3 of 3)**  
***Integration of Conventional (Traditional) Assessment***

	<b>GENDER</b>		<b>AGE</b>		<b>Years of Teaching at Community College Level</b>		<b>Years of Teaching Outside of Community College</b>		<b>Academic Preparation</b>	
	1= Male 2= Female		1=35 or younger 2=36 to 50 years 3=51 to 65 years 4=66 or older		1=Less than 3 years 2=Between 4 & 10 3=Between 11 & 20 4=More than 20		1=None 2=Less than 3 years 3=Between 4 & 10 4=Between 11 & 20 5=More than 20		1=Less than Bachelor's 2=Bachelor's Degree 3=Bachelor's Degree+ 4=Master's Degree 5=Master's Degree+ 6=Doctorate Degree	
<b>Practices</b>	<b>Mean Rank</b>	<b>Chi sq. df. Asym. sig</b>	<b>Mean Rank</b>	<b>Chi sq. df. Asym. sig</b>	<b>Mean Rank</b>	<b>Chi sq. df. Asym. sig</b>	<b>Mean Rank</b>	<b>Chi sq. df. Asym. sig</b>	<b>Mean Rank</b>	<b>Chi sq. df. Asym. sig</b>
In class discussions and questionings	70.16 80.42	2.067 1 0.151	72.04 87.16 76.44 <b>46.18</b>	8.835 3 <b>0.032</b>	82.35 72.19 76.95 70.79	1.401 3 0.705	75.78 69.36 83.78 76.78 77.26	2.314 4 0.678	87.14 79.86 82.75 70.83 76.41 75.22	1.897 5 0.863

## APPENDIX J

### *Responses to Open Ended Questions*

	<b>Proposed Additional Questions</b>
1	Certification exams, much like licensure exams, which are taken after completion of the program is very important when student performance in various areas are reported back to the program.
2	The primary assessment mechanism is * Exams based on problem statement with student demonstration of solution technique (Do the work and show how it was done ...) * Large amounts of lab/simulation based assessment. * Individual and group projects. Discussions are used for informal assessment of student competencies, but not generally not for grades. In the cases where this is used, it generally is based on a formal presentation.
3	I always assess my classroom climate each semester, using a SEI, (Self Evaluation Instrument), that I developed after completing my dissertation study.
4	Critical thinking and problem solving are extremely important in today's world, thus should be incorporated in all assessment practices. Debriefing after simulation. Allows students to self-assess and peer review.
5	Real world examples of critical thinking applicable to conduciveness of skill sets to earn a livable wage.
6	Teaching toward a test is not a bad thing assuming the test itself is measuring what is valuable and crucial for that specific area.
7	Blackboard Learn has a feature called GOALS. The Blackboard administrator can help the faculty to set up the assessment feature of Blackboard. If implemented properly, it will be a great help to the faculty. The name of the assessment tool of Blackboard Learn is "GOALS". You may ask the Blackboard Administrator or Mary Stewart of WVNET regarding "GOALS".
8	Interactive discussion between small groups in class
9	Observed skill verification by 3rd party (especially online course offerings)

10	Standardized testing is not a means to tests one's knowledge. Through discussion, Q&A, term papers and more importantly, essay tests, often provide a platform for students to exhibit their knowledge (or lack thereof) of the information taught.
11	Gear the final/class to the industry student is looking to for employment.
12	We use SimChart, HESI and Adaptive Quizzing by Elseviere to assist students in preparation for NCLEX.
13	In my mind, I was thinking of assessment in terms of testing and projects. I do find the assessment from homework important for frequent and corrective feedback. With math, you worry about students learning incorrect procedures and not steering them in the right direction in time.
14	I use low-stakes quizzes that students are able to complete multiple times until they have received the score they want. For students who care to repeat the quizzes, they get to reinforce concepts that are important and will show up again later on higher-stakes exams.
15	Assessment should be as "authentic" as possible to the real life careers that students are preparing for. The employment of various traditional assessments will depend on individual academic area and professional fields.
16	Industry Certifications
17	Use of hands on labs to verify that students have actual experience doing what they are in class to learn.
18	Student response systems to test but also to check understanding while teaching concepts.
19	Use of online discussion boards. Use of weekly journals with given prompts
20	Hands on sim testing
21	Using discussion to probe an issue.



22	Require detailed steps when solving multi-step problems in Chemistry. Much of grade on such problems is for details and little of grade is on correct answer. In Math, "word" or application problems.
23	Calling on students to paraphrase content material concepts.
24	Team-building and brain-storming exercises
25	Our "program " final exam is actually a nationally normed content area testing, as required for Perkins funding. It has been a good assessment to compare our content with national outcomes, however we do not "teach to the test".
26	PPT lectures
27	Some specifically noted practices are important, but not practical for all subject areas.
28	We have 12 physical assessments that each student must pass to complete the course
29	Work at the students own pace. Allowing them to soak up as much info as needed before moving on to the next task.
30	Immediate response via "clickers"
31	Group oral presentations of content (students teaching content to the class). Assessment of collaborative learning. Both of these items are similar to those presented, so you may consider them as specifically noted above.
32	Simulations are very important as well as preceptorships for students.