Author: **Jacobson, Kinga N.**

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STUDENT:

NAME: Kinga N. Jacobson **DATE: 6/20/2016**

ADVISOR:

NAME: Dr. Carol Mooney **DATE: 6/20/2016**

Committee members (other than your advisor who is listed in the section above)

1. **CMTE MEMBER'S NAME:** Dr. Julie Furst-Bowe **DATE: 6/20/2016**
2. **CMTE MEMBER'S NAME:** Dr. Deanna Schultz **DATE: 6/20/2016**
3. **CMTE MEMBER'S NAME:** N/A **DATE:**

This section to be completed by the Graduate School

This final research report has been approved by the Graduate School.

Director, Office of Graduate Studies: **DATE:**

Jacobson, Kinga N. ***A Qualitative Study on the Influence of Quality Systems in Meeting Performance Funding Criteria in Wisconsin Technical College System Institutions***

Abstract

This case study investigated the influence of quality systems on meeting performance funding criteria in Wisconsin Technical College System institutions. Using qualitative text-analysis methodology, the case study identified the common processes, systems, values, and culture of Wisconsin Forward Award-recognized Chippewa Valley, Western, and Milwaukee Area Technical Colleges, looking for ways these characteristics were used for performance-based funding goal attainment. Sources analyzed included the colleges' Wisconsin Forward Award application documents and evaluator feedback reports, and the transcripts of six interviews conducted with professionals with expertise in organizational effectiveness and performance funding at these institutions. The findings indicated that the entities shared quality, benchmarking, feedback, strategic planning, and budgeting processes and systems, as well as student focused values and culture. The case study conclusions suggested that these commonalities were not aligned with performance-based funding goals. Interviewees felt that it was too early to draw conclusions on their effectiveness. The researcher recommended consideration of the processes, systems, values, and culture shared by the investigated colleges by other technical colleges, and alignment of organizational practices with performance-based funding expectations. The suggested reorientation would benefit the financial stability and public accountability of Chippewa Valley, Western, and Milwaukee Area Technical Colleges, and improve their alignment with state priorities.

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I would like to credit attainment of my doctoral credential to my professors and family, who played an imperative role in motivating and supporting me in reaching this major personal and professional milestone. Thank you.

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Chapter I: Introduction

The higher education system in the United States, known for diverse and flexible programming, is often criticized for lacking accountability. The debate escalated as slimmed tax revenues increased public interest in transparency and results, infusing a sense of urgency for better tracking of college and university performance without compromising quality or accessibility (Sullivan, Mackie, Massy, & Sinha, 2012).

Historically, higher education was acknowledged for its many societal and economic benefits. Examples of higher education being a “linchpin of the American economy and society” (Sullivan, Mackie, Massy, & Sinha, 2012, p. 1) and teaching and research forwarding the country’s growth abound across the literature. Ruben (2007) affirmed the many contributions higher education made to students, economy, communities, and nations, indicating, “few social institutions have been as highly valued as colleges and universities” (p. 1).

Contrasting the affirmations were the economic, demographic, social, and political pressures confronting higher education. Beard (2006) brought to light issues such as insufficient public accountability, shifting student and employer expectations, competition for external funding, and demands for better assessment of student learning outcomes. Jurow (2006) spoke of the impact of increased global competition, changing student demographics, technology advances, and trends in education and the world of work.

Quality experts proposed that challenges drive innovation in higher education (Furst-Bowe & Bauer, 2007), improving processes and services, creating higher stakeholder value, and leading to new dimensions of performance (National Institute of Standards and Technology, 2009). They underscored that transformational organizational change is possible through quality frameworks like the Malcolm Baldrige Criteria for Performance Excellence for Education (Furst-Bowe & Bauer, 2007).

A paradigm shift was difficult to attain. Faculty perceived setting and monitoring standards by the higher education institution (Harvey, 1996) a degrading burden suited for corporations rather than collegium (Trow, 1994). Support personnel considered it a breakdown of trust (Watson, 1995). Experts indicated that managing for accountability in higher education was challenging because of the high number of internal and external stakeholders (Newton, 2000) and institutional heterogeneity.

The culture of higher education institutions traditionally recognized individual autonomy and faculty scholarship (Colling & Harvey, 1995), considering organizational performance frameworks business and industry, but not academe solutions. Concepts of organization and management were often considered contrary to "deeply embedded currents of professional autonomy and collegiality in decision-making" (Weil, 1994, p. 24). Authors addressed the notion of organized anarchy that rejected traditional planning, decision-making, and execution methods (March & Olsen, 1976). Acceptance of quality management in higher education was superficial and diluted by academic freedom (Largosen, Seyyed-Hashemi, & Leitner, 2004).

These realities lead to higher education missing opportunities of learning from business and industry. Ruben (2007) suggested benchmarking within and outside the educational sector for informed decision-making and resource allocation amidst increasing pressures for accountability. Others urged recognition of commonalities among the educational entities and units as necessity for sharing goals and operational practices (Massy, 2003).

Accountability was central to the 1998 reauthorization of the Higher Education Act. Increasing the rigor of accreditation was seen at heart of achieving this goal, "accountability has been one of the fundamental purposes of community college accreditation" (Silag & Snyder, 2006, p. 41).

Despite the high expectations to demonstrate quality education and student learning (Ringhand, 2009) higher education institutions were unprepared to meet the demands of students, faculty, staff, employers, government agencies, accrediting bodies, and the public (Beard, 2006). Few additional resources accompanied the heightened expectations (Ruben, 2007), making their satisfaction difficult. Authors reported on the financial limitations faced by higher education institutions (Boggs, 2004) and condemned the burden of providing positive, effective student learning environments in addition to traditional responsibilities (de Yampert, 2007).

Even though student learning outcomes assessment was at heart of public attention (Duque & Weeks, 2010), college and university leaders were unable to provide a uniform and standardized indicator (Middaugh, 2012). Experts criticized simplistic measurements "that don't require a lot of judgment" (Bolag, 2006, p. 23) and indicated disagreement on the relative importance of various types of evidence (Eaton, 2006). The lack of valid and reliable data (Ahire, Waller, & Golhar, 1996), and infancy stage of quality management in higher education (Mehralizadeh & Safaeemoghaddam, 2010) forbid satisfaction of public accountability demands.

In the public's view accountability in higher education was a priority issue to be addressed. Increased public awareness, especially in a recessionary economic climate, demanded significant state and nationwide policy changes. Authors underscored, "for too long, states have funded public higher education without any clear measurement of impact" (Heineman & Daniels, 2015, p. 3).

Institutional focus on access, rather than success, inadequate student learning outcomes, and lack of transparency and operational efficiency were the three themes prevailing across taxpayer and policymaker scrutiny. The first reproach involved low retention and graduation rates, admission of underprepared learners, and insufficient support services for students struggling with college level work. The second criticism indicated that students are graduating college without proper knowledge and skills, unable to compete in the global workplace. The third category condemned the transparency and operational effectiveness of higher education, critics questioning the goals, structure, and leadership of publicly funded colleges and universities.

Experts called upon postsecondary leaders to “increase quality, effectiveness, and efficiency in response to internal and external pressures” (Ruben, 2007, p. 3) proposing performance measures that needed not ignore heterogeneity (United States Department of Education, 2011), used unique characteristics for meeting constituents’ needs (Erickson-Snyder, 2006), and encouraged “assessment of success with respect to student achievement in relation to organizational mission” (Eaton, 2003, p. 5).

State and national authorities responded with initiatives addressing accountability in higher education. The need to enhance the rigor and results of higher education was addressed with public policies on accreditation, quality, and performance funding. An overview of these measures provides context for the present study and facilitates interpretation of its findings.

Accreditation of higher education institutions was traditionally a privately managed retrospection. It meant authorization or reaffirmation of the entire institution by one of the six regional accrediting bodies based on institutional mission, programs, enrollments, and faculty scholarship, with no concern for student learning outcomes or operational effectiveness. Traditional accreditation was a once in a decade event evaluating past performance, not a continuous improvement endeavor (Shakir, 2010) that instilled accountability (Beard, 2006).

Quality was difficult to define in the complex, fluid field of higher education. Diverse institutional missions, deeply rooted internal autonomy, and views of individualism challenged introduction of traditional productivity tools. Authors noted, “developing and fully implementing a quality management system was difficult” (Parscale, 2014, p. 42).

Funding of higher education was enrollment and cost-based, relying on prior-year enrollment numbers and funding levels, “giving colleges and universities little incentive to focus on retaining and graduating students or meeting state needs” (Dougherty & Natow, 2015, p. 2). The model increased access, but had a detrimental effect on completion rates, creating “a potentially perverse incentive to focus on enrolling students rather than graduating them” (Hillman, Kelchen, & Goldrick-Rab, 2013, p. 1).

The newly implemented initiatives transformed the expectations, making quality and results the norm in higher education. Emerging from the transformation was the Academic Quality Improvement Program, a new accreditation pathway designed to serve the common good by advancing the quality of higher education (Higher Learning Commission, 2007). This Malcolm Baldrige Performance Excellence in Education-aligned quality-assurance model adapted traditional principles to the needs of higher education, shifting the focus from compliance to continuous improvement (Shakir, 2010), and a culture of excellence (Stewart, 2006). The investigated Chippewa Valley, Western, and Milwaukee Area Technical Colleges were early adopters of the Academic Quality Improvement Program (Wisconsin Center for Performance Excellence, 2015).

States looking to infuse performance excellence in their regions created quality recognitions similar to the national Malcolm Baldrige Performance Excellence Award. These programs, such as the Wisconsin Forward Award, streamlined and reduced the cost of application while maintaining the benefits of the program.

Recent efforts to hold higher education responsible for outcomes involved performance-based funding. Performance-based funding augments organizational effectiveness and achievement. Designed as a solution for reducing the gap between postsecondary institutional goals and state priorities, performance-based funding focuses on “increased degree attainment, support for the state’s workforce needs, and economic progress” (Blanco, 2012, p. 1). It was to shift funding from inputs to outputs, “tying state appropriations to institutional performance on measures such as retention, graduation rates, and degrees conferred” (McCready, 2013, p. 1). To attain funds, institutions were to align their operations to the criteria outlined by the policy. Approximately 63% of the United States use some form of performance-based funding formula to allocate public resources to higher education institutions (National Conference of State Legislatures, 2015).

In Wisconsin, performance-based funding was introduced in 2013 as the state budget method connecting taxpayer investment and Wisconsin Technical College System performance. It was to “chart progress, enhance transparency, and promote accountability” (Wisconsin Technical College System, 2015, para. 2) by calculating appropriations based on categorical outcomes reliant on the results of the previous three fiscal years. Indicators included industry-validated degrees and certificates in high-demand fields; service to adults in basic education and remedial courses; student placement in program of study related jobs; participation in dual enrollment plans, workforce training, and statewide initiatives; and service to special populations and demographic groups (Wisconsin Technical College System, 2015).

Wisconsin Technical College System schools feature similar missions and structures, but differ in size, structure, strategy, leadership, and populations served. "Wisconsin's technical colleges serve every community in Wisconsin, large or small, urban or rural" (Wisconsin Technical College System, 2015, para. 1) making creation of a unified, one-size fits all performance measures difficult. Chapter 38 of the Wisconsin Statues and the Wisconsin Technical College System Board governs the operations of Chippewa Valley, Western, and Milwaukee Area Technical Colleges, the three institutions included in this study (Wisconsin Center for Performance Excellence, 2015).

Wisconsin Technical College System schools demonstrated varying degrees of interest in quality frameworks, some pursuing the optional Wisconsin Forward Award recognition while others concentrating on the accreditation requirements outlined by the Higher Learning Commission (Wisconsin Technical College System, 2015). Since establishment of the award in 1997, 14 colleges were acknowledged at one of the four recognition levels; none of them received, to date, the excellence award (American Society for Quality, 2015). While commitment to performance excellence is commendable, consumption of scarce organizational resources to attain Wisconsin Forward Award recognition is value-added only if it leads to reaching goals outlined by state funding guidelines (Hanushek & Lindseth, 2009).

If Wisconsin Technical College System institutions that aligned their operations with the discretionary Malcolm Baldrige Performance-Excellence in Education-based Wisconsin Forward Award benefitted from better preparation for succeeding in the new performance-based funding environment, then their effort was worthwhile and commendable role model. Yet, if the colleges did not develop value-added organizational characteristics for attaining state appropriations, then applying the standards could be viewed as wasted organizational effort of little use in the current operating environment. In this case technical colleges would have benefited more from alternative performance-improvement options than the Wisconsin Forward Award framework (Hillman, Tandberg, & Fryar, 2015).

Prior to this study, the fundamental question of whether an organization's ability to attain funding improved as a result of employing Wisconsin Forward Award measures was unanswered (Melkers & Willoughby, 1998). Even thouerformance excellence criteria were valid effectiveness tools known to lead to lasting success (American Society for Quality, 2015), the absence of a Wisconsin Technical College System-specific knowledge base prohibited interpretation of commonalities. Without research suggesting the existence and value of shared organizational characteristics, executives were unable to learn from the experience of their Wisconsin Forward Award recognized peers.

Statement of the Problem

The problem was the lack of evidence that satisfaction of the Wisconsin Forward Award standards enhanced a technical college's ability to meet performance-based funding goals through development and use of effective organizational processes, systems, values, and culture. No shareable knowledge base captured the key processes, systems, values, and culture of Chippewa Valley, Western, and Milwaukee Area Technical College, leaving the organizational learning attained by implementation of the Wisconsin Forward Award quality framework underutilized.

Not knowing what processes, systems, values, and culture were useful for attainment of performance-based funding goals left executives without data to drive the choice between implementation of holistic performance excellence measures or focusing on specific funding criteria imposed by the state. Divergent directions challenged the institutions' ability to develop well-rounded, sustainable strategic plans, hindering their progress toward meeting public accountability demands. Chippewa Valley, Western, and Milwaukee Area Technical Colleges were recognized as viable and flexible organizations that “enable themselves to be successful and innovative, keeping Wisconsin in a State of Excellence” (Wisconsin Center for Performance Excellence, 2015, para. 2) by the Wisconsin Forward Award; yet there was no evidence that they were also highly successful in the performance-based funding environment. It was questionable whether the processes, systems, values, and culture of these three technical colleges translated into enhanced preparedness for meeting performance-based funding expectations. Whether the organizational learning resulting from implementation of a quality management system rendered improved readiness for meeting performance-based funding targets was disputable.

Purpose of the Study

The goal of this study was to identify organizational characteristics shared by Wisconsin Forward Award recognized Wisconsin Technical College System institutions and to determine their usage in context of performance-based funding. In other words, the study explored whether recognized Chippewa Valley, Western, and Milwaukee Area Technical Colleges displayed common processes, systems, values, or culture and whether these organizational features were utilized in meeting performance-based funding criteria.

The study sought to supply information regarding the value of pursuing performance excellence distinction given that public funds necessary for operations were calculated based on specific, state outlined, outcome-based criteria. If the conclusions of the study suggested that implementation of the Wisconsin Forward Award standards prepared Chippewa Valley, Western, and Milwaukee Area Technical College for meeting performance-based funding targets, then technical college leaders were to be advised to consider utilizing both criteria sets. Alternatively, if the research was to indicate that the Wisconsin Forward Award framework did not assist Wisconsin Technical College System institutions in attaining state defined performance outcomes, then leaders were to be advised to remain focused on meeting performance-based criteria without attempting to implement Wisconsin Forward Award quality standards.

Research Questions

This qualitative case study sought answers to the following two research questions:

1. What common organizational processes, systems, values, and culture do the Wisconsin Forward Award recognized technical colleges display? Namely, do these colleges feature key characteristics that could benefit their peers if implemented in their organizational strategy and operations?
2. How do the Wisconsin Forward Award recognized technical colleges use their processes, systems, values, and culture to meet performance-based funding targets? Specifically, do their common organizational characteristics translate into effective practices and strategies for attaining performance criteria goals?

Assumptions of the Study

The study assumed that common organizational characteristics existed amongst the three Wisconsin Forward Award recognized Wisconsin Technical College System institutions and that they could be identified through analysis of public documents and interview transcripts. It was also assumed that the membership structure of the Wisconsin Technical College System was to remain unchanged during data collection and analysis. Additional key expectations related to the accuracy and currency of the analyzed documents and to the honesty and availability of interviewees. Finally, the study assumed that the conclusions reached by qualitative research methodology were reliable, and valid.

Definition of Terms

This qualitative investigation of the influence of the Wisconsin Forward Award on meeting performance-based funding criteria in the Wisconsin Technical College System utilized technical quality and organizational performance terms and postsecondary education-specific expressions that may not be widely recognized by readers, requiring definition. The terminology list shown below is not exhaustive, assuming basic understanding of organizational effectiveness and higher education. Should readers be unfamiliar with terminology not defined in this list, individual inquiry and/or researcher contact is advisable for correct interpretation and application of the terms in question.

Academic Quality Improvement Program (AQIP). Provides a framework for institutions to examine their key processes and to analyze, understand, and explore opportunities for improvement, maintaining their affiliation with the Higher Learning Commission based on the principles of continuous improvement (Higher Learning Commission, 2016a).

Access. The right of individuals to educational opportunities, regardless of obstacles that may impede their success, including, but not limited to geographic, financial, academic, physical, social, economic, and other institutional barriers (Erickson-Snyder, 2006, p. 8).

Accountability. Process of states enacting laws and policies that require colleges and universities to demonstrate efficiency, quality, and sound stewardship of public money (Lively, 1992, p. 30).

Accreditation. The approval process by which the Higher Learning Commission confirms that criteria established for authorization or reaffirmation has been met by an institution of higher learning (Higher Learning Commission, 2016d).

Alignment. A state of consistency among plans, processes, information, resource decisions, workforce capability and capacity, actions, results, and analyses that support key organization-wide goals (National Institute of Standards and Technology, 2015a, p. 16).

Appropriations. Public taxpayer money appropriated to public postsecondary education institutions for general operations (Williams, 2005, p. 13).

Benchmark. Reflects the best practices that lead to superior performance, helping a company learn its strengths and weaknesses and those of other leading organizations and incorporate the best practices into its own operations (Evans, 2014, p. 174).

Case study. Is a type of ethnographic research design used to describe, analyze, and interpret the shared characteristics and patterns of behavior of a “culture-shaping group” over time (Creswell, 2012, p. 462).

Community College Student Success Engagement (CCSSE). Is an organization for survey research, focus groups, and related services for community and technical colleges interested in improving educational quality through strengthened student engagement and student success (CCSSE, 2016).

Competitive advantage. Denotes a firm’s ability to achieve market superiority over its competitors, providing above-average performance on the long run (Evans, 2014, p. 200).

Continuous improvement. Is a set of recurring activities that are carried out in order to enhance performance; continual improvements can be achieved by carrying out audits, self-assessments, and management reviews and can be realized by collecting data, analyzing information, setting objectives, and implementing corrective and preventive actions (Praxiom, 2015).

Control. Is the activity of ensuring conformance to requirements and taking corrective action when necessary to correct problems and maintain stable organizational performance (Evans, 2014, p. 125).

Effectiveness. Shows how well a process or a measure addresses its intended purpose (National Institute of Standards and Technology, 2015a, p. 16).

Equity. Represents the response to the disparities and diversity in human needs amongst different groups and the process of allocating an equitable amount of resources to institutions based on size and mission (Richardson, 1994).

Higher Learning Commission (HLC). Is the commission of the North-Central Association of Colleges and Schools that accredits degree-granting higher educational organizations (HLC, 2016d).

Integrated Postsecondary Education Data System (IPEDS). Consists of basic statistics on postsecondary institutions regarding tuition and fees, number and types of degrees and certificates conferred, number of students enrolled, number of employees, financial statistics, graduation rates, and student financial aid (NCES, 2016).

Key Performance Indicators (KPI). Are a set of quantifiable measures that a company or industry uses to gauge or compare performance in terms of meeting strategic and operational goals; they vary between companies and industries, depending on their priorities or performance criteria (Investopedia, 2016).

Knowledge assets. Are an organization's accumulated intellectual resources; the knowledge possessed by an organization and its workforce in the form of information, ideas, learning, understanding, memory, insights, cognitive and technical skills, and capabilities (National Institute of Standards and Technology, 2015b, p. 17).

Measures and indicators. Are numerical information that quantify the input, output, and performance dimensions of processes, products, programs, projects, services, and the overall organizational outcomes (National Institute of Standards and Technology, 2015b, p. 17).

National Community College Benchmarking Project (NCCBP). Is a community college resource for assessing core indicators of institutional effectiveness; it provides an easy-to-use tool for community colleges to conduct peer comparisons on leading measures of effectiveness (Merz, 2016).

Organizational context. Is the organization's environment; it includes all of the internal and external factors and conditions that affect its products and services, have an influence on its quality management system, and are relevant to its purpose and strategic direction. An organization's external context includes all of the needs and expectations of interested parties, as well as its social, cultural, legal, technological, regulatory, and competitive environment. An organization's internal context includes its values, culture, knowledge, and performance (Praxiom, 2015).

Organizational culture. Reflects the values and behaviors that contribute to the unique social and psychological environment of an organization; it includes an organization's expectations, experiences, philosophy, and values that hold it together, and is expressed in its self-image, inner workings, interactions with the outside world, and future expectations (Business Dictionary, 2015).

Organizational goals. Are future conditions or performance levels that an organization intends or desires to attain (National Institute of Standards and Technology, 2015b, p. 16).

Organizational effectiveness. Is the level at which an organization meets the needs of its constituents (American National Standards Institute, 2015).

Organizational learning. Is the new knowledge or skills acquired through evaluation, study, experience, and innovation in an organization (National Institute of Standards and Technology, 2015b, p. 17).

Organizational processes. Are an organization's most important value-creation procedures (National Institute of Standards and Technology, 2015, p. 18).

Organizational systems. Indicate how an organization's work is accomplished, consisting of internal work processes and external resources needed to develop and produce products, deliver them to customers, and succeed in the marketplace (National Institute of Standards and Technology, 2015b, p. 18).

Organizational values. Are the guiding principles and behaviors that embody how an organization and its people are expected to operate (National Institute of Standards and Technology, 2015b, p. 17).

Performance. Refers to measurable results that activities, processes, products, services, systems, and organizations are able to achieve; whenever they perform well it means that acceptable results are being achieved and whenever they perform poorly, unacceptable results are achieved (Praxiom, 2015).

Performance-Based Funding (PBF). Is a school finance model that links funding for public education programs with measurable student learning outcomes; it means that funding is tied to a policy outcome. In higher education, institutions generally seek results tied to degree completion (Patrick, Myers, Silverstein, Brown, & Watson, 2015).

Performance excellence. Indicates an integrated approach to organizational performance management that results in delivery of ever-improving value to customers and stakeholders, contributing to organizational sustainability; improvement of overall organizational effectiveness and capabilities, and organizational and personal learning (Evans, 2014, p. 7).

Performance reporting. Is a state mandated process in which public colleges and universities are required to compile reports that indicate whether they are operating at optimal level of performance (Burke, 2002).

Personal Assessment of College Environment (PACE). Promotes establishment of change priorities by obtaining a satisfaction estimate of employees concerning the campus climate; respondents are asked to select responses in four domains: institutional structure, supervisory relationships, teamwork, and student focus (NILIE, 2016).

Plan Do Check Act (PDCA). Is a four–step model for carrying out change resembling a circle with no end; the cycle should be repeated again and again for continuous improvement (American Society for Quality, 2015b).

Process management. Involves design, control, and improvement, the key activities necessary to achieve a high level of performance in key value creation and support processes, identifying opportunities for improving quality and operational performance, and ultimately, customer satisfaction (Evans, 2014, p. 106).

Quality. Is the standard of something as measured against other things of a similar kind; the degree of excellence of something. It is a distinctive attribute or characteristic possessed by someone or something (Business Dictionary, 2015).

Quality management. Includes all the activities that organizations use to direct, control, and coordinate quality such as formulating a quality policy, setting quality objectives, quality planning and control, quality assurance, and quality improvement (Praxiom, 2015).

Quality management system. Denotes the mechanism for managing and continuously improving core processes to achieve maximum customer satisfaction at the lowest overall cost to the organization (American Society for Quality, 2015b).

Quality Review Process (QRP). Is a system wide continuous improvement model used within the Wisconsin Technical College System consisting of annual program reviews as well as metrics used for benchmarking and improving individual programs (Wisconsin Technical College System, 2016a).

Strategic advantages. Are marketplace benefits that exert a decisive influence on an organization's likelihood of future success; these advantages are frequently sources of current and future competitive success relative to other providers of similar products or services (National Institute of Standards and Technology, 2015b, p. 17).

Strategic challenges. Are pressures that exert a decisive influence on an organization's likelihood of future success; these challenges are frequently driven by an organization's anticipated competitive position in the future relative to other providers of similar products or services (National Institute of Standards and Technology, 2015b, p. 17).

Strategic objectives. Indicate the aims or responses that an organization articulates to address major chance or improvement, competitiveness or social issues, and business advantages (National Institute of Standards and Technology, 2015b, p. 17).

Strength. See Strategic advantages (National Institute of Standards and Technology, 2015b, p. 17).

Strength Weaknesses Opportunities Threats (SWOT). Is a situation analysis that examines the internal strengths and weaknesses, and external opportunities and threats of an organization to chart a strategy (Business Dictionary, 2016).

Student learning outcome. Define the significant and essential learning that learners have achieved, and can reliably demonstrate at the end of a course or program; identify what the learner will know and be able to do by the end of a course or program (Lesch, 2016).

Student Learning Outcome Assessment. An assessment of student learning outcomes important to the mission of the educational institution and degree level awarded to be used for development and improvement of the institutions academic programs (Parscale, 2014, p. 19).

Student Success Inventory (SSI). Designed to strengthen the quality of the student experience through precise, comprehensive evaluation; it is a student life and learning improvement tool that measures student satisfaction and priorities (Ruffalo Noel Levits, 2016).

Total Quality Management (TQM). Is a holistic approach to long-term success that views continuous improvement in all aspects of an organization as a process and not as short-term goals; it aims to radically transform the organization through progressive changes in the attitudes, practices, structures, and systems; it transcends the product quality approach, involves everyone in the organization, and encompasses its every function (Business Dictionary, 2016).

Weaknesses. See Strategic Challenges (National Institute of Standards and Technology, 2015b, p. 17).

Wisconsin Technical College System (WTCS). A system of sixteen two-year postsecondary institutions that develops individuals at every stage of their academic and work careers into experts and entrepreneurs that make an immediate, local economic impact in Wisconsin's regions (Wisconsin Technical College System, 2016b).

Limitations of the Study

The study has three limitations. A first limitation is related to the case study's goal of identifying the organizational features common to Chippewa Valley Technical College, Western

Technical College, and Milwaukee Area Technical Colleges. Restraining the investigation to these three colleges narrowed the focus to recent, information rich cases able to supply relevant data for answering the two research questions. Limiting the analysis to three specific cases and five years, rather than evaluating all 14 Wisconsin Forward Award distinguished Wisconsin Technical College System institutions, reduced the possibility of missing evidence and altered institutional profiles caused by substantial time passing between the analysis and the recognition. Executive attrition and organizational restructuring can affect the applicability of organizational learning attained through the pursuit of the Wisconsin Forward Award, abridging the long-term relevance of this research.

A second limitation implicates the exact configuration of the Wisconsin performance-based funding framework. The nine elements mandated through the original 2013-2015 biennial budget have now been revised to allow selection of seven of the nine standards by each institution (Wisconsin Technical College System, 2015). Given the ever-changing economic and state priorities, the performance-based funding criteria used to compute organizational performance will continue to develop. While similarities are likely to persist, the outcome-based funding standards can lead to elimination and/or addition of various scoring indicators.

A third limitation involves restricted applicability outside of Wisconsin due to focusing on Wisconsin technical colleges and the local performance excellence award. The outcomes and recommendations of this investigation are practical and value-added for Wisconsin Technical College System members operating within the geographical borders of our state, but are of limited worth in other areas of the country. Similarly, benefits provided by the study to secondary schools, four-year higher educational institutions, and private colleges not subject to performance funding are discounted due to the difference in their funding structure. This analysis is intended for Wisconsin's public, two-year postsecondary entities, although the conclusions may be valuable for other educational institutions as well.

Methodology

This study utilized qualitative case study methodology and interpretive approach to find answers to the two research questions posed. The methodology was selected for its ability to analyze in depth the cases selected and to report insight impossible to capture by quantitative reporting. The case study involved Chippewa Valley, Western, and Milwaukee Area Technical Colleges. Source materials included Wisconsin Forward Award application packages and evaluator feedback reports of Chippewa Valley, Western, and Milwaukee Area Technical Colleges, and semi-structured interviews with select participants. Existing materials, as well as new content generated through open-ended questioning are common sources for qualitative content analysis (Fraenkel, Wallen, & Hyun, 2012). Content analysis is a technique that enables indirect study of human or organizational behavior, beliefs, attitudes, values, and ideas through analysis of written communications such as textbooks, essays, reports, transcripts, etc. (Fraenkel, Wallen, & Hyun, 2012).

The analysis relied on the N'Vivo qualitative analysis software. N'Vivo is comprehensive data analysis software designed to assist qualitative researchers organize and analyze interview transcripts, field notes, diverse textual sources, and other types of qualitative data including images, audio, and video files (Stanford University, 2016).

Coding involved counting recurring themes and patterns, an "important characteristic of content analysis" (Fraenkel, Wallen, & Hyun, 2012, p. 485), followed by creation of a thematic code structure that facilitated deductions regarding organizational characteristics shared and used by Chippewa Valley, Western, and Milwaukee Area Technical Colleges. The outcome of the research process was a “narrative description of findings” (Fraenkel, Wallen, & Hyun, 2012, p. 485).

Chapter II: Literature Review

The problem investigated in this study was the lack of evidence that satisfaction of the Wisconsin Forward Award standards enhanced a technical college's ability to meet performance-based funding goals through development and use of effective organizational processes, systems, values, and culture. There was no shareable knowledge base capturing the key processes, systems, values, and culture of the recognized institutions, leaving the organizational learning attained by pursuing implementation of the Wisconsin Forward Award framework underutilized.

The goal of the study was to identify organizational characteristics shared by Wisconsin Forward Award recognized Wisconsin Technical College System institutions and to determine their usage in context of performance-based funding. The study explored whether Chippewa Valley, Western, and Milwaukee Area Technical Colleges displayed common processes, systems, values, or culture and whether these organizational features were utilized in meeting performance-based funding criteria.

The current body of work familiarized the researcher with publications pertinent to the investigation. Experts support development of a rich contextual background for research studies (Krathwohl, 1998), suggesting that reviewing existing literature facilitates the research process (Creswell, 2012). Erickson-Snyder (2006) indicated, "literature review enhances the case study by providing a breadth of perspectives from national, regional, and local experts" (p. 17) on topics of interest such as accreditation, quality improvement, and performance-based funding.

The literature review introduced each subject with an overview followed by presentation of Wisconsin-specific details relative to quality measures in education. The first section examined national accreditation efforts and the Academic Quality Improvement Program. The second heading covered the Malcolm Baldrige Performance Excellence framework and its local counterpart, the Wisconsin Forward Award. The third part outlined performance funding in higher education and in the Wisconsin Technical College System.

Accreditation and Quality Improvement in Higher Education

Demands for heightened accountability increased the role of accreditation in higher education. Students, parents, and other external stakeholders linked an organization's credibility to its accreditation, increasing the legislative power and public responsibility of accrediting organizations. The Wisconsin Technical College System, including the investigated Chippewa Valley, Western, and Milwaukee Area Technical Colleges are institutions of higher learning subjected to similar criticism.

Over time, accreditation came to play a key part in assuring the quality level demanded (Padro, 2009), being "the only organized means by which the academe provides quality assurance to the general public" (Wergin, 2005, p. 35). Authors indicated that performance outcomes moved forefront, virtually all standards referring to student learning (Ewell, 2001) as "evidence that institutions and programs perform well and that students learn" (Eaton, 2003b, p. 6).

Dickeson (2006) explained that the purpose of accreditation was to serve the institution and the public alike, intending consumer protection, quality assurance, public accountability, and return on investment. The Western Association of Schools and Colleges (2002) declared one of the primary goals of accreditation to be promotion of an internal culture of evidence where "data collected informs institutional decision-making, planning, and improvement" (p. 6).

Accreditation was acknowledged as the most influential and comprehensive review in higher education, including a reflective self-study, peer-review, and structured quality assurance methodology (Eaton, 2006b). Eaton (2006a) indicated that the accreditation process was a driving force of promoting assessment, planning, and continuous improvement through standards and guidelines. He stated, “accreditation is the primary means by which institutions of higher education in the United States assure and improve quality” (Eaton, 2003b, p. 1) and recounted its role in serving the public interest by depoliticizing higher education.

Existing literature indicated that accreditation meant general authorization or reaffirmation of the entire institution by one of the six regional accrediting bodies, special purpose endorsement from a national organization, or specialized accreditation by a professional association (Dickeson, 2006c). To gain or maintain endorsement through one of the six regional accrediting bodies, institutions must satisfy five criteria on mission, integrity, ethical and responsible conduct, teaching and learning quality, resources and support, teaching and learning evaluation and improvement, and resources, planning and institutional effectiveness (Higher Learning Commission, 2016). Orientation, learning organization, connectedness, and distinctiveness are four overarching themes present in the standards (Erickson-Snyder, 2006).

At first accreditation focused on mission, programs, and faculty expertise without consideration for student learning outcomes or financial accountability. Much like the traditional higher education funding formula, it was input, rather than output driven. Growing concern for value-added outcomes like lucrative skills, success-driven student experience, and credentialing positioned accreditation as gatekeeper for accountability for results (Ruben, 2007).

Accreditation stimulated assessment of higher education, “continuing accountability to constituents and the public” (Southern Association of Colleges and Schools, 2007, p. 4), but remained an incomplete performance measure. Despite efforts to improve college and university results through accreditation, output quality was difficult to define with simplistic indicators. Experts proposed that traditional productivity tools might not be well fitted for complex postsecondary teaching and learning because “the inputs and outputs in the production process are difficult to define and quantify” (Sullivan, Mackie, Massy, & Sinha, 2012, p. 1), and productivity gains are often perceived as quality decreases in rankings and by students (Archibald & Feldman, 2011).

The National Research Council of the National Academies recommended a multi-factor productivity concept and practical guidelines to assist in resource-allocation decision-making, facilitate performance improvement, and inform the public (Sullivan et al., 2012). The model included a large number of output and input categories and differentiation schemes for labor input, and degree level or field, accounting for the heterogeneity of higher education. Notwithstanding its complexity, the model remains incomplete, the conclusion being that productivity metrics should be only one of the many quantifiers of funding and resource allocation decisions (Sullivan et al., 2012). While this model did not have direct relevance for the study at hand, it provided background knowledge essential to understanding the difficulties faced by Wisconsin Technical College System institutions in defining and measuring quality.

Literature indicated that quality was difficult to define, especially in the complex and fluid higher education field. Zhang’s research (2009) on student learning outcome quality in accredited institutions found considerable variation across the United States, and a study on secondary quality efforts indicated wide and persistent disparities across schools (Shields & Mohan, 2008). Experts that measured quality with student satisfaction indicators suggested considering higher education a fast growing service facing globalization (Nadiri, Kandampully, & Hussain, 2009); others supported the customer satisfaction approach, but indicated that developing appropriate indicators remained challenging (Quinn, Lemay, Larsen, & Johnson, 2009).

Quality management was defined as a systems-focused management approach that engaged effective leadership, factual decision-making, customer satisfaction, and continual improvement (Waldman, 1994). Known pioneers of the management theory were Taylor, "the father or scientific management" (Parscale, 2014, p. 14), Barnard with a humanistic approach (Scott, 2005), and Hawthorne, who contributed insights on employee productivity (Carrigan, 2010). The body of knowledge on quality management also highlighted more recent experts such as Deming, Juran, and Crosby (Fred, 2012).

Deming developed the continuous improvement process known as Plan, Do, Check, Act (PDCA) for reducing product defect-rates by identifying the source of variations through continuous feedback. Plan (P) stood for design, Do (D) involved production, Check (C) meant measurement and reporting, while Act (A) referred to implementing improvements (Benneyan & Chute, 1993). Even though the method was developed for manufacturing production, the benefits of continuous monitoring hold true for any organization attempting to succeed in a fast changing environment. Deming reinforced that the most significant cause for failure with quality management is leadership (Ahire, Waller, & Golhar, 1996). The importance of the Plan Do Check Act process was a resounding finding of the study at hand, becoming a key part of the recommendation for implementing continuous improvement processes in college operations.

Juran introduced human resources management in the quality field, stressing the importance of training managers, rather than workers, in concepts of quality (Smith, 2011). Juran's theories supported the researcher in developing suggestions on the need for transformational leadership necessary for embedding quality in the organizational culture.

Total Quality Management was reiterated as a classic business and industry performance improvement model that targets total customer satisfaction through continuous improvement, leadership, employee empowerment, teamwork, and systemic commitment to error reduction. Freitas (2007) examined Total Quality Management in light of accreditation of higher educational institutions, arguing that shifting to continuous improvement mindset, rather than new procedures, was necessary for quality to be instilled. Studies recognized that placing student learning in the center of all initiatives and operations was not easy to realize (Ammentorp & Trites, 2002), "quality being a challenging, but rewarding journey" (Callaway, Ballinger, Donley, & Wright, 2003, p. 39). Authors indicated that creating and implementing quality management systems was difficult (Parscale, 2014), and quality initiatives often failed (Ziegler, 2005), higher education administrators and faculty rejecting the movement without exploring the potential benefits (Spangehl, 2012). These literature findings supported the goals of this study, indicating that introduction of initiatives such as the performance-based funding program must be accompanied by a proper implementation strategy to deliver the results desired.

Resounding across the existing literature was quality management's role in organizational performance improvement. Benefits included increased competitiveness, better morale, reduced cost, and improved results (Man & Kato, 2010). Parscale (2014) explained that competitiveness; customer satisfaction; accountability, high standards, and credibility; employee motivation; and organizational prestige were just some of positive outcomes of incorporating performance excellence standards in the operations of colleges and universities. Burke and Lessard (2000) spoke to the significant role administrators play in the success or failure of new initiatives, including driving change, generating wide scale acceptance, developing performance goals-based strategic plans, and instilling commitment to results.

The body of knowledge suggested that the essence of quality control was effective communication of expectations (Smith, 2011), underscoring the importance of leadership in engraining a culture of quality across an organization. They noted that alignment with the organizational climate was important for engraining quality initiatives, and that communicating goals in educational terms, and relating to familiar ideas helped make quality systems easier to grasp (Spangehl, 2012). Transformational leadership, suggested the authors, was essential to communicating vision and inspiring action, while directives modeled expectations when institutions had little previous experience with change management (Kouzes & Posner, 2007).

Visionary leaders helped employees embrace new initiatives and achieve new levels of performance (Bass, Avolio, Jung, & Berson, 2003) because of their "high job satisfaction level and greater commitment to change implementation" (Hinduan, Wilson-Evered, Moss, & Scanell, 2009, p. 59). Overcoming initial resistance required solid top-level management strategy (Ho & Wearn, 1996), while empowerment was suited for incremental adjustments spread over time, or when institutions had good understanding of the change process (Yun, Faraj, & Sims, 2005).

Academic Quality Improvement Program in the Wisconsin Technical College System

Accreditation, "a private form of self-regulation that serves not only higher education itself, but also students, government, and the public" (Eaton, 2003a, p. 1) played a pivotal role in establishing higher education excellence. Traditionally it was the process of "an accrediting body evaluating the entire organization and accrediting it as a whole" (Higher Learning Commission, 2007, para. 1).

The Higher Learning Commission, an independent corporation founded in 1895, is one of six regional accrediting bodies in the United States. Formerly known as Commission of the North Central Association of Colleges and Schools, the Higher Learning Commission accredits degree-granting colleges, universities, and other institutions of higher learning in 19 north-central states (Higher Learning Commission, 2016d). The organization was important to this study because it is the accrediting body of Chippewa Valley, Western, and Milwaukee Area Technical Colleges.

The traditional Higher Learning Commission accreditation method documented past performance, and involved an institutional self-study and an external review. It was a once in a decade event rather than a continuous improvement endeavor (Shakir, 2010) instilling little accountability (Beard, 2006). The sweeping changes confronting higher education demanded accreditation to respond by redesigning its processes and objectives.

In 1999, the Higher Learning Commission underwent a major mission overhaul to "increase the focus of accreditation on the quality of higher learning, and provide multiple processes with emphasis on the institutions own processes of quality assurance and quality improvement" (Crow & Van Kollenburg, 2003, p. 4). Emerging from this transformation were new accreditation criteria designed to serve the common good by advancing the quality of higher education (Higher Learning Commission, 2007), and two new accreditation pathways. The changes affected the Wisconsin Technical College System institutions, some remaining true to the more traditional, while others progressing to the newer accreditation models.

Currently, the three options for gaining or reaffirming accreditation are the Program to Evaluate and Advance Quality standard pathway, the Academic Quality Improvement Program, and the Open pathway. Hamilton and Black (2001) asserted accrediting bodies' interest in a range of new approaches, as "no single accreditation process represents the only, or best way to assure and advance quality" (Crow & Van Kollenburg, 2003, p. 5). Colleges wishing to be endorsed use the framework that best fits their mission, goals, and structure; they choose their plan at the end of the accreditation cycle, unless certain conditions, such as new member, change of control, monitoring or sanctions, etc. require them to be evaluated with traditional methods

(Higher Learning Commission, 2016c). Chippewa Valley, Western, and Milwaukee Area Technical Colleges were admitted into the new Academic Quality Improvement Program plan early on, emphasizing their history of high performance.

The Program to Evaluate and Advance Quality emerged from the traditional pathway and involved a self-assessment that "includes all important new developments, whether positive or negative" (Noonan & Swanson, 2003, p. 79), and peer-evaluator feedback. Studies indicated that the peer assessment involved in accreditation enhanced transparency, a major preoccupation of public accountability critics (Ewell, 2001), and helped validate the self-study (Dickeson, 2006). After the rollout of the new Higher Learning Commission accrediting options, Chippewa Valley, Western, and Milwaukee Area Technical College elected to move away from this traditional plan.

The newly added Academic Quality Improvement Program shifted the focus "from a model of compliance to one of continuous improvement" (Shakir, 2010, p. 2), proposing a considerable deviation from previous expectations in higher educational quality assurance (Stewart, 2006). Institutions showcase their culture of excellence through targeted action projects and a comprehensive systems portfolio that requires improvement of organizational systems by way of shared understanding and employee buy-in (Stewart, 2006).

The Academic Quality Improvement Program was designed to address the weaknesses of the traditional accreditation process, reflect best practices suitable for higher education, and propose an organizational change process fitted for the field. It was the Higher Learning Commission's solution to the needs of higher education. Spangehl indicated (as cited in Simmons, 2001, p. 1) that the model customized the underlying quality principles to the needs of higher education, applying tools that worked well in other arenas to education, while respecting its traditions. It helped leaders think through the role of the culture of evidence, and make better decisions using good information (Simmons, 2001). These outcomes informed the current study, suggesting that quality systems could be effective means of improving the performance of postsecondary schools.

Higher education was slow to embrace the quality culture, with episodic rather than continuous focus on quality improvement (Spellings, 2006). Institutions took a “wait and see attitude” (Simmons, 2001, p. 2), and the adoption rate of the Academic Quality Improvement Program was slow at first. There were approximately a dozen early adopters in 2000 and about two hundred a decade later (Higher Learning Commission, 2007). It took more than a decade for progressive institutions to embark the continuous improvement journey, but once on board, the results established the benefits of quality tools for operations and proved that excellence was not a business and industry-only goal. In this, Chippewa Valley, Western, and Milwaukee Area Technical Colleges were pioneers in demonstrating an interest in quality.

Garcia (2009) found a positive relationship between accreditation and higher education performance, and proved that the results of organizations on the Academic Quality Improvement Program pathway were better, on average, than of those in the traditional plan. The examination of existing literature substantiated that employing a knowledge management system for Academic Quality Improvement Program data-collection was beneficial for operational transparency (Ringhand, 2009), and that organizational climate scores were high in these institutions (Pemberton, 2005).

Conversely, one study showed higher interest in using leadership assessments for accreditation reporting in traditional schools than in Academic Quality Improvement Program institutions (Hansman, 2007); another expert found higher student learning assessment results in

Program to Evaluate and Advance Quality colleges than in those on the Academic Quality Improvement Program pathway (Rothgeb, 2008). At the same time, this second study suggested that the Academic Quality Improvement Program benefited formation of a quality culture, "constantly working on improvement projects and always being reminded of the importance of assessment and student learning" (Shakir, 2010, p. 48). Quinn et al. (2009) considered the Academic Quality Improvement Program a promising design for higher education, but felt that it was too new to have resulted in quantifiable results, while Shakir (2010) underscored the role of slow adoption in the limited success. These literature outcomes were indicative for the goals of this current study relative to adoption of externally mandated initiatives in higher education.

The existing body of knowledge concluded that the new accreditation pathway "infused the principles and benefits of continuous improvement into the culture of colleges and universities in order to assure and advance the quality of higher education" (Higher Learning Commission, 2007, para. 2).

Malcolm Baldrige Performance Excellence in Higher Education

The Malcolm Baldrige Performance Excellence framework is a globally recognized improvement system that proposes seven categories for evaluating institutional processes and performance (National Institute of Standards and Technology, 2015b). The indicators represent fundamental drivers of high performing, leading-edge organizations. The Malcolm Baldrige Performance Excellence program was not directly related to this study, but provided context for the analysis of processes, systems, values, and culture shared by Chippewa Valley, Western, and Milwaukee Area Technical Colleges. The Wisconsin Forward Award and the Academic Quality Improvement Program are both based on the Malcolm Baldrige Performance Excellence standards, rendering it valuable for appreciating the history and evolution of higher education quality initiatives.

The Malcolm Baldrige Performance Excellence Award, originally called the Malcolm Baldrige National Quality Award was established "to raise awareness of quality and recognize national role models" (Evans, 2014, p. 12). It was introduced by Public Law 100-107 mandating national focus on productivity, by United States President Ronald Reagan on August 20, 1987 (National Institute of Standards and Technology, 2015a). By way of this award, national recognition is given to companies focused on productivity improvement and excellent results in order to "guide others through example in their quest to manage for high quality" (Evans, 2014, p. 61). Originally administered by the National Institute of Standards and Technology, a division of the United States Department of Commerce, the program is now sustained by the Baldrige Foundation, a nongovernmental organization established to support the program despite its elimination from the federal budget (National Institute of Standards and Technology, 2015a). The American Society of Quality presents the awards; 105 awards were presented to 99 organizations, including six repeat winners since 1988 (American Society of Quality, 2015).

The program's benefits were shown by studies finding 820 to 1 benefit-to-cost ratio for the United States economy (Evans, 2014). Collins (2001) endorsed the standards as powerful mechanisms for methodical organizational action that leads to exceptional results. Effectiveness was rewarded with widespread popularity; the program became one of the most prestigious recognitions in the United States. Even though the most frequent recipients are large, established organizations, the "criteria provides a framework for managing from which every organization can benefit" (Evans, 2014, p. 47). Award winners meet or exceed industry benchmarks in most of the categories assessed, being models for understanding, and satisfying their customers' needs better than the competition (Lawrence, 2009).

In the increasingly global business environment, "demands for responsiveness and accountability become paramount" (Newton, 2000, p. 2) at regional, national and international levels alike. States and countries responded by creating Malcolm Baldrige National Quality Program-aligned recognitions, including those tracked by the Alliance for Performance Excellence and the Global Excellence Model. These streamlined, cost effective awards are more attainable for startups and smaller entities than the Malcolm Baldrige Performance Excellence Award, and have "helped many local organizations start and continue their performance excellence journeys" (National Institute of Standards and Technology, 2016, para. 1).

According to Evans (2014) "the award does not exist simply to recognize product excellence, nor does it exist for the purpose of winning; its principal focus is on promoting high-performance management practices that lead to customer satisfaction and business results" (p. 61). This substantiates examination of the Malcolm Baldrige Performance Excellence principles for this study revolving around effective processes, systems, values, and culture in Wisconsin Technical College System institutions operating in the a performance-driven environment.

The framework was originally designed for businesses and industry, and later adapted to the needs of the service, education, and health care organizations, and even for nonprofits. During the first decade, the terminology deterred educational and health care applications even though the framework was sufficiently flexible to stimulate improvement in any field (UW-Stout, 2016). To help infuse the quality mindset in education and health care, new categories were added in 1999 using field-specific language. The newest group, non-profit, was introduced in 2007 (National Institute of Standards and Technology, 2016).

The United States Government recognized the importance of quality initiatives for the country's global competitiveness, the winners being acknowledged personally by the President during a high-broadcast ceremony. President Ronald Reagan commented, "the award offers a vehicle for companies, large and small...to examine their own approaches to quality; it offers companies a standard to compare their own progress to that of the country's very best" (Baldrige Foundation, 2015b, p. 4). According to Larson (1998), President Bill Clinton referred to the award as "a blueprint for success to help United States companies attain and retain market leadership in the 21st century" (para. 1). President Barack Obama (National Institute of Standards and Technology, 2009) indicated:

> The road to greatness in America has been, and always will be traveled by those who embrace change and work hard every day to be the best; Baldrige organizations show how quality, innovation, and an unending quest for excellence help strengthen our nation and brighten the future for all Americans. (para. 2)

The seven categories assessed, namely leadership, strategic planning, customer focus, measurement, analysis, and knowledge management, workforce focus, operations focus, and results form an integrated management system, and a holistic organizational improvement strategy. The criteria represents "a collection of practices reflecting what high-performance organizations must do to succeed and have been described as representing the leading edge of validated management practices" (Evans, 2014, p. 67). The first three categories form a leadership trio that suggests integrating these functions in every aspect of an organization. The second triad, formed of workforce focus, operations management, and results, has a heavier emphasis on business outcomes. Finally, the last criterion overarches the entire framework and supports evidence-based decision-making through collection, analysis, and management of data.

Applicants undergo a rigorous evaluation by a panel of judges with expertise in industry-specific operations and organizational quality management. Entrants submit a lengthy application package supporting their request to be recognized as benchmarks within their field. Candidates attain a percentage score from zero to one hundred in each category, each item being evaluated on approach, deployment, learning, and integration. A distinct score is given to results, a category representing overall organizational outcomes. The highest scorers receive a site visit by a team of examiners, followed by computation of a final score (Wisconsin Center for Performance Excellence, 2015). The typical score is in the 650-750 range, indicating that most organizations, even though outstanding in many ways, still have opportunities for improvement, quality being a race without a finish line (Evans, 2014). Hertz (2011) points out that while only a select few are recognized by receiving the actual award, all institutions that reach the site visit level are highly regarded role models, their distinguishing characteristics being results, entrepreneurship and innovation, agility, governance and leadership, as well as work systems and work processes. The detailed feedback report outlines advantages, strength, challenges, and weaknesses faced by the applicant; the report is considered a “valuable organization improvement tool even if the entity is not selected to receive national recognition” (Evans, 2014, p. 70).

The Malcolm Baldrige National Quality Award for Education is open to any public or private secondary school or postsecondary college and university interested in an integrated approach to performance management that provides value to students and stakeholders, improved effectiveness, and results in personal and institutional learning” (Baldrige Foundation, 2015a, para. 4). Learning centered education (Walters, 2011) and student and stakeholder customer assessment of educational processes are key (Brown-Bulloch, 2011). University of

Wisconsin-Stout (2016), a 2001 award recipient indicated, “just as it has for U.S. businesses, the Malcolm Baldrige National Quality Award for Education can help organizations improve performance and foster communication, sharing of best practices, and partnerships among schools” (para. 10).

The program helped shape secondary education through initiatives such as the National Education Goals Panel’s Creating a Framework for High Achieving Schools. Panel chair Wisconsin Governor Tommy Thompson indicated, “it provides educators with a framework and strategies for improving their schools and helping all children reach high standards” (University of Wisconsin-Stout, 2016, para. 11). At the postsecondary level, it infused performance excellence in Wisconsin Technical College System colleges by way of the Wisconsin Forward Award. College leaders commended the value of the in-depth self-study and evaluator feedback reports, “the real value in applying for this award is in the rigorous evaluation process” (National Institute of Standards and Technology, 2013, para. 1).

Accreditation and Baldrige standards are compatible and complementary (Driscoll & Cordero de Noreiga, 2006). Accreditation pathways are sufficiently precise to guide quality improvement efforts in education, yet flexible enough for broad comparisons among institutions. Baldrige is similarly, “a way of thinking, a philosophy, and a methodology for conceptualizing, operationalizing, and assessing organizational excellence” (Ruben, 2007, p. 9), providing a useful guide to organizational improvement and benchmarking. Both play key roles in satisfying accountability requirements. Accreditation “stimulates evaluation and improvement, while providing a means of continuing accountability to constituents and the public” (Southern Association of Colleges and Schools, 2007, p. 3). The Baldrige examinations revolve around the alignment between an institution’s mission, goals, plans, practices, systems, and results (Ruben, 2007). Neither framework is prescriptive; rather they offer a "systemic and integrated vision of organizational excellence" (Ruben, 2007, p. 12), establishing the foundations of a quality mindset, rather than a step-by-step how-to guide.

The Excellence in Higher Education model integrated the Malcolm Baldrige Performance Excellence framework and accreditation standards for assessing, planning, and improving higher education (Ruben, 2007). Using germane accreditation principles and terms, the combined model addressed the specific needs of the postsecondary field while instilling the seven categories stressed by the Malcolm Baldrige Performance Excellence program. Based on a "shared position that review, planning, and continuous improvement are fundamental to institutional effectiveness" (Ruben, 2007, p. v) the new model sought to unify internal and external stakeholders' views on organizational excellence and develop a collective vocabulary and sense of priorities for improvement that leads to accountability. Relative to constituencies' perspective on accountability, Ruben (2007) stated, "what matters is the quality and effectiveness of their overall learning, living, or visiting experience" (p. v).

A college combined the Malcolm Baldrige National Quality Award framework and the Excellence in Higher Education Standards when self-assessing their organizational quality level, because "the categories identified by these standards are transferable to the academic and administrative side of an educational organization" (Lee & DePue, 2010, p. 165). They felt that organizational transformation was the human capital's knowledge "that is transformed into routines, strategies, and goals for the entity and the individual" (Dewhurst & Cegarra, 2004, p. 322). This insight informed the present study indicating that active, embedded use, rather than the simple existence of quality standards make the difference in organizational performance.

The Malcolm Baldrige National Quality Award framework started playing an increasingly influential role in accreditation institutions being asked to develop a focused quality enhancement plan (Ruben, 2004). The Higher Learning Commission aligned its new Academic Quality Improvement Program accreditation pathway with the quality framework, shifting focus to long-term needs of students and stakeholders (Spangehl, 2004). The redesigned process transformed the adopting colleges as this non-prescriptive model required them to develop performance metrics for each criteria, "keeping institutions focused on managing change and improving performance" (Furst-Bowe & Bauer, 2007, p. 7).

To date, eight secondary and three higher education institutions have received the Malcolm Baldrige National Quality Award (National Institute of Standards and Technology, 2016). Richland Community College and University of Wisconsin-Stout, two of the winners, are also Academic Quality Improvement Program institutions. The third winner, the Monfort College of Business at the University of Northern Colorado follows the Program to Evaluate and Advance Quality, the traditional accreditation pathway (Higher Learning Commission, 2016b).

Literature review findings support this study by underscoring the importance of visionary leadership in quality focused learning organizations. Senior leaders set the direction, create a student-centered campus climate, and drive actions that accomplished the organization's objectives (Furst-Bowe & Bauer, 2007). When effective leaders remove procedural barriers and facilitate multidimensional communication and decision-making, innovation and growth prosper (Sorensen, Furst-Bowe, & Moen, 2005), the extent of implementation remaining at the discretion of the administrative team. Authors Sorensen, Furst-Bowe, and Moen (as cited in Furst-Bowe & Bauer, 2007) indicated:

> It is clear from all indicators that both public and private colleges and universities will continue to face severe fiscal issues, more demands from governing boards and state legislatures on efficiencies and accountability measures, and greater pressure to hold down the rising cost of education; senior leaders will be forced to find answers or at least explore measures to students and stakeholders that they understand and are addressing the issues. (p. 14)

Wisconsin Forward Award in the Wisconsin Technical College System

While the Malcolm Baldrige Performance Excellence framework is a model for organizational excellence in any institution and industry, implementation of the principles, satisfaction of the complex criteria, and the costly application process often deter smaller, regional entities from applying. To counteract these shortcomings, many states established Malcolm Baldrige Performance Excellence-aligned awards featuring streamlined application logistics, reduced cost, and specific objectives. Bobrowski and Bantham (1994) posit:

> State award programs generally are designed to promote an awareness of productivity and quality, foster information exchange, encourage firms to adopt quality and productivity improvement strategies, recognize firms that have instituted successful strategies, provide role models for other businesses in the state, encourage new industry to locate in the state, and establish a quality-of-life culture that will benefit all residents of the state. (p. 423-438)

The Wisconsin Forward Award was established in 1997 by Wisconsin Governor Tommy Thompson. It was modeled after the national Malcolm Baldrige Performance Excellence Award, but limited to institutions operating within the State of Wisconsin (Wisconsin Center for Performance Excellence, 2015). Administered originally by the Wisconsin Department of

Workforce Development, the program is managed by the Wisconsin Center for Performance Excellence since 1999. The nonprofit organization, governed by a volunteer Board of Directors comprised of Wisconsin business and institutional leaders, "fulfills its mission to promote and recognize adoption of high performance management principles and practices, by focusing on three interrelated activities: education, assessment and recognition" (Wisconsin Center for Performance Excellence, 2015, para. 8).

In joining 34 other states in creating a recognition platform for organizations that exemplify mature, productive quality management systems (Wisconsin Center for Performance Excellence, 2015), Wisconsin advanced its distinguished companies and institutions that "enable themselves to be successful and innovative, keeping Wisconsin in a State of Excellence" (Wisconsin Center for Performance Excellence, 2015, para. 2). While entry required a complex application and engagement of substantial resources, the Wisconsin Forward Award process was more streamlined and cost effective for smaller, regional organizations than its national counterpart (Wisconsin Center for Performance Excellence, 2012). These characteristics made it a feasible option for technical colleges wishing to enhance their operations and achieve statewide recognition. Chippewa Valley, Western, and Milwaukee Area Technical College took advantage of this route to embark their quality journey.

The Wisconsin Forward Award standards, commonly acknowledged as valid administrative effectiveness tools (American Society for Quality, 2015a) were organized, much like the national Malcolm Baldrige Performance Excellence Award, in seven categories including leadership; strategic planning; student, stakeholder and market focus; measurement, analysis, and knowledge management; workforce focus; process management; and results (Moss-Kanter & Page, 2011). They provide a system for measuring and recognizing four levels of progress and growth toward performance excellence through a systematic assessment process (Wisconsin Center for Performance Excellence, 2015).

The four levels, namely commitment, proficiency, mastery, and excellence represent developmental steps in an entity's quest toward reaching the highest level of performance quality. Commitment, the lowest adoption level recognized by the Wisconsin Forward Award, requires organizations that complete a self-assessment to define a baseline benchmark on the scoring scale (Wisconsin Center for Performance Excellence, 2015). Proficiency, the second level signifies organizations committed to constructing and maintaining sound quality management practices. Mastery, the highest recognition ever received by a Wisconsin Technical College System institution, is an advanced level that reflects skillful performance management practices and significant progress through elaborate quality processes. Excellence, the highest award level, signifies entities that "consistently demonstrate management excellence through quality practices and superior achievements, being outstanding quality enterprises that serve as role models for others" (Wisconsin Center for Performance Excellence, 2015). Put a different way, excellence winners are institutions that advance full circle from assessing themselves against industry benchmarks, to learning their strengths and weaknesses and incorporating innovative approaches that produce exceptional results, all the way to becoming the sought-after benchmark in their field (Evans, 2014).

The process, too, resembles the national procedure and involves a comprehensive application, an organizational profile report, and an application fee. The independent and consensus reviews completed by the Board of Examiners are followed by site visits at the organizations that attained the highest scores. Scoring is based on the dimensions of approach, deployment, learning, integration, and results in each category, a model retained from the national framework without changes (WCPS, 2015). The final compiled grade encompasses the ranking attained on each indicator and the site visit, determining the award winners in each field. The key deliverable of the elaborate assessment process is a complete evaluator feedback report provided to all applicants when the process is completed. The Wisconsin Center for Performance Excellence (2015) indicated:

> The feedback report identifies strengths and opportunities for improvement relative to the award criteria; by identifying gaps in systems and improvement strategies, the feedback report can assist organizations to improve in a more focused way, such as in the strategic and business planning process. (para. 9)

Key to this study were the Wisconsin Forward Award applications of Chippewa Valley, Western, and Milwaukee Area Technical Colleges. The submissions and corresponding feedback reports were input sources for this qualitative research investigating the colleges' common processes, systems, values, and culture, and whether they engaged their organizational characteristics in meeting outcome-funding goals. By choosing to measure up to the rigorous quality criteria set forth by the Wisconsin Forward Award, these colleges became postsecondary education performance excellence pioneers. Later on, they confirmed their continued commitment to quality once more by embracing the Academic Quality Improvement Program pathway for Higher Learning Commission accreditation from the start.

Over time several Wisconsin Technical College System institutions pursued and received recognition by way of the Wisconsin Forward Award. Since its establishment 14 Wisconsin Technical College System schools were recognized with the award (American Society for Quality, 2015a). The specific reasons for initiating implementation of the Wisconsin Forward Award standards at each of these institutions was distinct but shared common concerns typical for United States higher education. In context of ongoing demands for increased accountability and operational efficiency, and better alignment between state and institutional priorities, these colleges demonstrated commitment to quality improvement. Many two and four-year schools have not transformed into "learning organization that regularly improve themselves to serve the individuals and organizations that are the beneficiaries of their work" (Balzer, 2010, p. 7). The Wisconsin Forward Award recognized Chippewa Valley, Western, and Milwaukee Area Technical Colleges participating in this study embraced continuous improvement and transformed into benchmark learning organizations.

Existing literature posited the essential role of leaders in moving institutions forward. Bennis (2007) suggested that relationship building was key to effective leadership being, "a tripod of a leader or leaders, followers, and the common goal they want to achieve" (p. 3). Field (2006) suggested that while historically colleges rejected the idea of assessment, increasing public pressure lead to a "tipping point where the institutional leadership is stepping up" (p. 2). The author urged institutional engagement with constituencies, commending the real learning that results from such synergy. This informed the current study regarding the role of leadership in Chippewa Valley, Western, and Milwaukee Area Technical Colleges.

The body of work reviewed advocated the role of leadership as key in managing higher education organizations amidst increasing demands. Experts agreed that administrators were drivers of institutional success (Goldstein, 2007), and that leaders have always been foundational in establishing a quality mindset across organization (Ball, 2008). Shakir (2010) stated, "the president or CEO is either often or always involved in most indicators of institutional effectiveness" (p. 53). Experts linked clarity of leadership, planning, and goals with the ability to embed innovation into the culture of an organization (Jurow, 2006), indicating that the commitment of senior leaders was a key success factor in embedding quality across the organization (Ahire, Waller, & Golhar, 1996). The outcomes of the literature review support the researcher’s recommendation relative to the role of transformational leadership in effective implementation of the quality culture.

Moreover, the body of work on higher educational institutions that implemented Malcolm Baldrige Performance Excellence-based operational standards suggested benefits relative to understanding of strategic advantages, strengths, challenges, and weaknesses as a result of the self-study and evaluator feedback. Experts indicated strengthened intra-departmental collaborations, increased employee engagement and empowerment, enhanced stakeholder cohesiveness, and organizational learning” (Lee & DePue, 2010, p. 167). This supports the study’s goal of identifying processes, systems, values, and culture shared by Chippewa Valley, Western, and Milwaukee Area Technical Colleges in order to benefit internally and help peer Wisconsin Technical College System institutions improve also.

Performance Funding in Higher Education

Traditionally, United States higher education was funded with an enrollment/cost-based approach that utilized organizational forecasts of expenses based on number of students enrolled, current operating costs plus annual increases, and add-ons for new program development, student support services, administrative expenses, building maintenance and expansions, etc. (SRI International, 2012). This funding model worked with budgetary functional areas and a base plus/minus method or legislative mandates to determine the amount of funds received by each institution. According to Dougherty and Natow (2015), this approach “relies on a combination of enrollment numbers and the prior-year funding level, giving colleges and universities little incentive to focus on retaining and graduating students or meeting state needs” (p. 2).

Indeed, reports indicated that out of every 100 students only 38 enter postsecondary education right away after high school and only 18 graduate college with an associate or bachelor's degree (ACTE, 2007). Increasing the number of credentials attained was a notable goal in light of the fact that 90% of the fast-growing job sectors require some postsecondary education and "the median earnings of a Unites States worker with only a high school diploma are 37 percent less than those of a worker with a bachelor's degree" (Miller et al., 2006, p. 1). The State of Nevada exemplified the seriousness of the concern as "roughly 40% of students who enroll full-time in a four-year college fail to graduate, the numbers being worse for part-time and two-year programs" (SRI International, 2012, p. 15). Similar concerns were raised by taxpayers across the country, including Wisconsin, especially as the economic recession deepened. Stakeholders complained about unrealistically high postsecondary schooling costs, low return on the investment made by students and their families in credentials without placement, and high college dropout rates.

As policymakers looked for ways to align higher educational goals with state priorities, they wanted increased degree attainment, support for the state's workforce needs, and economic progress (Blanco, 2012). The traditional enrollment-based funding created a gap between the goals of postsecondary institutions and the state (Hillman, Kelchen, & Goldrick-Rab, 2013). "For too long, states have funded public higher education without any clear measurement of impact…for example, the federal postsecondary graduation rate only accounts for half of undergraduates in four-year institutions and a third of undergraduates in community colleges" (Heineman & Daniels, 2015, p. 3). When improvement of graduation rates was desired, then an enrollment-driven formula was not suitable due to its association with low degree completion (SRI International, 2012).

Pressures for higher accountability and better student learning outcomes lead state governments to shift their attention from enrollment-based to results-driven funding models (Burke, 2002). Experts stated that higher education needed to accomplish the improvements while reducing tuition and fees through increasingly lean operations and increased productivity, underscoring once more the role of transformational leaders (Hammer & Champy, 1993). Yet, introduction of quality improvement tools encountered considerable resistance from faculty. Burke (2002) reported that academicians considered quantitative outcome measures subjective and inappropriate for the heterogeneous goals of the complex higher education field, and agreed that a definition of the term quality was necessary before methods could be agreed upon. Lively (1992) concurred, expressing the need for universal accountability criteria for measuring institutional performance. These findings were instrumental in providing context for the present research involving Chippewa Valley, Western, and Milwaukee Area Technical Colleges subjected to state-mandated performance excellence criteria.

National and state policymakers stepped up, advancing performance funding as a new higher educational quality assessment model. Christal (1998) indicated:

> In state after state, legislators have directed all government entities, including public higher education, to state their goals and activities more explicitly, and report results as a form of accountability; many state higher education agencies have adopted performance measures in a response to these accountability demands. (p. vii)

Assessment meant that colleges and universities identified learning outcomes students needed to meet prior to graduating, developed indicators to measure results, and relied on data for performance improvement (Burke, 2002). Assessment addressed the problems of goal setting and progress measurement, but did not consider the “quantity or quality of services provided to students, states, or society" (Williams, 2005, p. 26). The work published on this topic outlined Astin's resource and reputation-based model that quantified institutional achievement based on campus resource and enrollee quality, and faculty scholarship and reputation (Burke, 2002). Public demands shifted the focus to student learning outcomes, rendering them an accreditation requirement (Nettles, Cole, & Sharp, 1997).

Despite the progress made, resistance to external accountability was still strong within the institutions. Williams (2005) indicated, "the literature supports the fact that a gap clearly exists between the national acceptance of assessment activities and its limited impact on individual campuses" (p. 28). Burke (2002), too, acknowledged that campuses shunned the notion of accountability, and that great variation existed among institutions on what to measure, and how to implement a measurement system capable of rendering reliable results. Academicians considered performance reporting an intrusion and violation of campus autonomy (Graham, Lyman, & Trow, 1996), and advocated for internal process audits.

Unbiased performance reporting and credible evidence won the debate and external accountability become the norm across higher education (Burke, 2002). States implemented performance-reporting requirements on accessibility, efficiency, productivity, and quality standards for publicly funded postsecondary schools. Results-focus and advancement of state priorities by incorporating external accountability measures in addition to internal process improvement was expected (Ruppert, 1994). By the late 1990s the reports were recognized illustrations of public college and university performance.

Performance funding was the natural next step in the policymakers' quest to improve accountability amongst higher education institutions. This model was shown to augment the prominence of improved organizational effectiveness and achievement as two and four-year public colleges compete for limited state funding (McCready, 2013). According to McCready (2013) "performance funding represents a shift from input-driven to output-driven funding, tying state appropriations to institutional performance on measures such as retention, graduation rates, and degrees conferred" (p. 1). Though opinions were divergent on the benefits versus challenges of this funding formula, supporters felt that while the "input-based funding used in the past provided stability and fiscal certainty for Wisconsin educational institutions, it also created a potentially perverse incentive to focus on enrolling students rather than graduating them" (Hillman, Kelchen, & Goldrick-Rab, 2013, p. 1).

Literature defined performance-based funding as a "budget supplement that some states use to allocate additional funds to higher education institutions based on a select number of indicators" (Williams, 2005, p. 19) such as graduation and retention rates, transfer rates, faculty workload, pass rates on licensure exams, etc. (Burke, 2002). Performance-based funding emphasized state-established outcome criteria such as student achievement and retention, graduation rates, number of industry-recognized credentials issued, employability, and transfer to upper educational institutions. The most common performance metrics fell in the categories of outputs, progress, and economic development, incentivizing completion, rather than enrollment (SRI International, 2012). Progress metrics tracked headway made, while outcome metrics showed how the state and institutions performed against completion goals (Reindl & Reyna, 2011).

Selection of such indicators is controversial because campuses have only limited impact of some of their outputs due to the variability of inputs they work with, such as learner preparedness, economic context, etc. Burke (2002) indicated that because higher education was inherently complex, with multiple goals achieved by various types of institutions, performance indicators were relative indicators, exact measurement of results being impossible. Gaither, Neal and Nedwek (1995) reported that assessment of higher education results is difficult, if not impossible due to the unique characteristics of the field.

Existing literature provided guidelines on performance funding indicators, including aspects such as internal and external consistency, validity and reliability of measurements, fairness and equity among institutions, objectivity of data, comparability of reports, and alignment with goals and strategies on short and long-term (Ashworth, 1994). A prevalent pushback was the cost of data collection and reporting need for developing and disseminating performance funding reports (Borden & Banta, 1994). Williams (2005) indicated:

> Performance funding programs must balance the tension between external and internal accountability; external accountability uses performance data to document individual institutional progress such as job placement rates, licensure scores, employee satisfaction with graduates, and general education and major area test scores; internal accountability uses assessment data for curriculum development, programmatic change, and improving levels of satisfaction. (p. 44)

Burke and Modarresi (2000) rationalized that assessment drive accountability practices and that even though popular amongst external stakeholders, legislators and the public, they were not well received by internal stakeholders such as faculty and administrators. The differing perception, termed a "tension" between external and internal accountability across the existing knowledge base (Noland & Davis, 2000), lead to several performance-based funding policy iterations, each aiming to bringing the two sides closer to reaching agreement. For example, while in 1980 Tennessee's performance funding program did not favor various types of institutions (Bogue & Troutt, 1980), more recent studies indicated that the plans were adjusted to allow for campus-specific indicators (Noland & Davis, 2000).

The first state to establish a performance funding program for postsecondary education was Tennessee in 1979, followed by 20 other states by 2000 and additional 17 since then (Dougherty & Natow, 2015). In Tennessee, the primary goals of performance funding were increasing accountability and institutional improvement (Williams, 2005). The close to four decades-long experience of the state with this model indicated that performance funding was effective in promoting institutional and government cooperation and goal alignment, and enhanced higher education's support for the public agenda (Noland & Williams, 2004). The Tennessee Higher Education Commission's (1993) statement of purpose indicated the goals performance funding was to accomplish:

> The performance funding program is designed to stimulate instructional improvement and student learning as institutions carry out their respective missions; it is an incentive for meritorious institutional performance and provides the citizens of Tennessee, the Executive Branch of state government, the legislature, educational officials, and the faculty with the means of assessing the progress of publicly funded higher education. (p. ii)

In 2011, 42 states were actively evaluating or implementing performance funding in higher education (HCM Strategists, 2011). The most recent account published by the National Conference of State Legislatures (2015) pointed out that 32 states "have a funding formula or policy in place to allocate a portion of funding based on performance indicators such as course completion, time to degree, transfer rates, the number of degrees awarded, or number of low-income and minority graduates" (para. 2) and additional five states were in process of transitioning to performance funding. As of now, approximately 63% of the 50 states embraced this model for financing higher education in hopes of improved student success outcomes and better alignment with state needs.

Adoption fluctuated over time, but a nationwide analysis found that 26 states implemented some performance-based funding model between 1997 and 2007 (HCM Strategists, 2011). Key to a winning model was alignment with state priorities. If access to higher education and increased participation were the goal, especially in states with high percentages of underserved and low-income populations, then enrollment-based funding was suitable. However, "it is serious waste of public resources to admit students to college who then drop out without a qualification" (SRI International, 2012, p. 11) and so "states needed to devise policies that promote completion and increase efficiency across their higher education systems" (Heineman & Daniels, 2012, p. 3). The literature review found that when states struggled with low graduation and completion rates, policymakers often incentivized student success outcome improvement through non-traditional mechanism such as performance funding. This explained why Wisconsin policymakers chose this model for funding Wisconsin Technical College System institutions.

Organizations subjected to performance funding standards were required to meet specific criteria for budget allocations (Hall & Kalk-Derby, 2012). In states that subscribed to performance-based measures, such as Wisconsin, the amount of funds received by two-year postsecondary schools was dependent on attainment of expected outcomes (Miao, 2012). Consequently, institutions needed to align their operations with the proposed standards, prioritizing the use of their limited resources with achievement of state goals. Performance funding was intended to be a solution for closing the gaps created by the traditional enrollment-based approach, facilitating student graduation and institutional mission alignment with state priorities and needs (Reindl & Reyna, 2011), all highly desired goals in Wisconsin Technical College System colleges struggling with low graduation, retention, and credentialing statistics.

Historically, states approached performance funding in a variety of ways. Many, especially during early implementation, used a base funding plus bonus model that failed to allocate sufficient money to motivate a change in organizational behavior (Miao, 2012). Instead of improving their outcomes, educational institutions sought alternative, sometimes easier ways to attain additional financing (Nisar, 2014). Fully integrated, later versions connecting a higher percentage of the base funding to outcomes were much more successful in incentivizing transformational change (Miao, 2012). Experience indicated that the initiative's results were dependent on "the size of the performance pool and whether performance funding is allocated as a bonus or whether it is tied to baseline institutional support" (SRI International, 2012, p. 14).

The history of performance-based funding initiatives across the country suggested that both the design and the implementation of the program have crucial impact on its success. Input from higher educational scholars and experts, state advisory board advice, and gradual rollout were all recommended methods for achieving success. Tennessee, the first state to officially embark the performance-based funding challenge, revised its policy a number of times, gradually reducing the number of indicators, modifying the evaluation standards for the indicators, and increasing the amount of budget dollars tied to institutional results (Burke, 2002). Overall, existing studies supported the effectiveness of performance funding, suggesting that it reformed state-level accountability in higher education, and redefining the relationship between governmental authorities and public postsecondary institutions (Dandrige-Johnson, Noland, & Skolits, 2004).

Additionally, suggested by the body of work on performance funding, the first programs attempted an inflexible, one-size fits all approach that lead to an antagonistic attitude amongst faculty and educational leaders (Nisar, 2014). Whenever performance metrics allowed for variation in institutional mission using different standards for two-year versus four-year schools, and when developers collaborated with stakeholders the performance-based funding agenda was much more successful. In fact, Miao (2012) recommended active involvement of key stakeholders in designing the model and recognition of institutional differences with separate funding formulas or metrics as best practices, and suggested considering research and development output in assessing universities, and transfer to four-year programs in evaluating two-year career and technical colleges.

Experts asserted that connecting budget decisions with performance results was a way to reinvent higher education. Burke (2002) indicated that performance funding "tied specific resources to institutional results on each of the designated indicators and focused on the distribution phase of the budget process" (p. 21), cautioning that it must have a strong enough impact to ignite transformation. Furthermore, the literature suggested that when states failed to acknowledge higher education specifics and followed flawed implementation plans, their performance funding programs were unpopular, unstable, and eventually abandoned (Burke & Minassians, 2001).

The experience of the early performance-based funding implementers was mixed; some enjoying lasting success while others had to cut programs due to lack of alignment with state goals, public pushback, undue design complexity, lack of data, or reduced fund pools (SRI International, 2012). HCM Strategists (2011) observed specific design flaws such as "too complicated, lacked a meaningful amount of money to drive change, or relied on poor data" (p.

10). Even in states where the model persisted for years, it had undergone considerable change.

Tennessee and Ohio, two of the states with the longest outcome-based funding history, moved away from the performance-bonus approach, embedding result-expectations directly in the state funding formula (Dougherty & Natow, 2015). Recent research reported that in states that no longer use this model the discontinuation was primarily due to "erosion of political support" (Dougherty & Natow, 2015, p. 10) not ineffectiveness. Design and implementation challenges, including lack of institutional capacity, equity, and opposing views were commonly cited as obstacles to long-term success (HCM Strategists, 2011).

Ignash (2011) indicated that tying performance funding to the public agenda for higher education, availability of good data and institutional capacity, differentiated measures for universities and community and technical colleges, fair and clear metrics and funding mechanisms were all important aspects in planning a successful model. The author noted that it is key to "put enough money into performance funding to make a difference and pay attention to the implementation strategy as well as the design of the system" (Ignash, 2011, p. 6). Similarly, Miao (2012) underscored the importance of gaining key stakeholders support using both progress and completion metrics and starting with a gradual rollout plan that ties an increasingly higher percentage of funds to outcomes. These insights served the research by providing perspective for assessing the success of the performance-based funding initiative within the Chippewa Valley, Western, and Milwaukee Area Technical Colleges investigated.

Examples of states that embraced the best practices outlined by various publications were Tennessee, Ohio, and Washington, among others. The Tennessee model remained flexible and recognized differences between two and four-year institutions, rewarding progress over completion, and "partitioning off larger percentages of base funding in order to incentivize transformative change" (Miao, 2012, p. 3). The 2010 Complete College Tennessee Act emphasized student retention and degree completion, and implemented an "outcome-based formula that accounts for approximately eighty-five percent of the state appropriations" (SRI International, 2012, p. 87). Ohio, another state that learned from the difficulties of the past, allocated thirty percent of total higher educational funding based on performance compared to the original five percent, and used three different formulas for central universities, regional campuses, and community colleges (Miao, 2012). The State of Washington calculated incremental achievement-point gains for allocating supplemental funds for educating at-risk students (Miao, 2012). The positive impacts of a well-designed and correctly implemented performance funding program were proven by the 2009-2010 achievement increase of 12 percent compared to a 1 percent student enrollment growth, rising another 17 percent over the next one year period (SRI International, 2012).

Outcome-Based Funding in the Wisconsin Technical College System

Wisconsin Governor Scott Walker introduced outcome-based funding in 2013 as a state budget method establishing a direct connection between taxpayer investment and Wisconsin Technical College System performance (Wisconsin Technical College System, 2014b). Findings of the literature review affirmed that outcome-based funding, a specifically targeted form of performance-based funding, was an effective solution for improving state and national objectives because it "clarified what a state expected from its public postsecondary institutions" (Blanco, 2012, p. 1). Wisconsin Technical College System leaders explained that under this formula the colleges were to be measured on seven out of nine criteria to chart progress, enhance transparency, and promote accountability (Wisconsin Technical College System, 2015). Colleges' appropriations were to be calculated based on their performance score in each category, using data from the previous three fiscal years (Wisconsin Technical College System, 2014c). As the amount of funding received by each school was dependent on attainment of expected outcomes (Miao, 2012), institutions were to align their operations with the prescribed standards, prioritizing the use of their resources in light of these expectations.

The specific outcome-based funding criteria applicable to the members of the Wisconsin Technical College System revolved around student placement rates upon graduation, number of degrees and certificates awarded, number of programs or courses with industry-validated curriculum, transition of adult students from education to skills training, participation in dual enrollment programs, workforce training provided to businesses and individuals, participation in collaborative efficiency initiatives, and services to special populations or demographic groups (Wisconsin Technical College System, 2014a).

While Wisconsin policymakers and stakeholders turned their attention to outcome-based funding as a potential solution for higher education only recently, the model is not new. Improved alignment, degree-attainment, and quality assurance of programming complemented by operational standards such as clarity, differentiation, and scale in effective performance-based funding models were noted in previous research (SRI International, 2012). Specifically, authors suggested that the formula was to be easily understandable, conveniently applicable, equitable to institutions with differing missions, and sufficiently significant to lead transformation. These elements helped the "funding framework go beyond access and enrollment as primary driver" (SRI International, 2012, p. 17), making it an effective solution for aligning policy priorities with higher educational institution goals in support of economic progress.

However, for performance criteria to act as an organizational change agent, "the metrics need to be clear, equitable, and the funds significant" (SRI International, 2012, p. 52).

Performance-based funding in the Wisconsin Technical College System is still new, and only affects a small part of the colleges' finances, tying back to the literature recommendations that, for the initiative to be effective in leading institutional culture change and transformation, it must be substantial.

Summary

Existing research indicated increased public attention on the accountability of higher education. The body of knowledge revealed three major criticism themes, namely, institutional focus on access rather than success, inadequate student learning outcomes, and lack of transparency and operational efficiency. The first issue led to low retention and graduation rates, admission of underprepared learners, and insufficient support services for students struggling with college level work. The second problem resulted in students graduating college without proper knowledge and skills, rendering them unable to compete in the global workplace. The third category of difficulties was related to the transparency and operational effectiveness of higher education institutions; critics questioned the goals, structure, and leadership of publicly funded colleges and universities.

State and national authorities responded with three consequential initiatives designed to improve the accountability of higher education. Specifically, policies were put in place for increasing the rigor of external accreditation, implementation of continuous improvement plans, and funding public higher education institutions based on performance. This literature review summarized existing research on the topics of accreditation, quality, and performance funding in higher education, providing the context necessary for answering the research questions posed.

The three main themes in higher education accountability, accreditation, quality systems, and performance funding were reviewed from a national perspective and a Wisconsin Technical

College System viewpoint. Initiatives of key importance for the goals of this study, including the Academic Quality Improvement Program, the Wisconsin Forward Award, and the outcome-based funding initiatives were reviewed in detail. Familiarity with the existing body of knowledge on these topics of relevance allowed the researcher to grasp the historical context and current status of these complex, controversial matters, understanding that accountability that is "here to stay and will need to be a major policy initiative" (Laanan, 2001, p. 73).

The review underscored that as policymakers are "grappling with the challenge of raising the quality of higher education" (Crow & Van Kollenburg, 2003, p. 3), accreditation quality processes have become "central to the ongoing commitment to excellence that characterizes the United States higher education enterprise" (Eaton, 2006a, p. 1).

Quality systems, including the national Malcolm Baldrige Performance Excellence framework and its regional Wisconsin Forward Award counterpart played an important role in transmuting higher education into an active, goal oriented field representative of the "quality movement" (Silag & Snyder, 2006, p. 43).

Finally, the literature review outlined the evolution of the performance funding nationally, concluding with a brief overview of the outcome-based funding model characteristic of Chippewa Valley, Western, and Milwaukee Area Technical Colleges.

The literature review provided the background knowledge necessary for assessing the findings of the qualitative analysis investigating the processes, systems, values, and culture shared by the three colleges investigated, and their use in reaching outcome-funding targets.

Chapter III: Methods and Procedures

The goal of this research study was to determine the value of common organizational characteristics demonstrated by Wisconsin Forward Award recognized Wisconsin Technical College System institutions in the context of performance funding. It aimed to determine whether recognized technical colleges displayed common organizational processes, systems, values, or culture and whether these organizational features were utilized in meeting performance-based funding criteria.

This study relied on qualitative research methodology to capture profound insights and achieve comprehensive understanding necessary for answering the two research questions posed. Namely, the study made the following two inquiries:

1. What common organizational processes, systems, values, and culture do the Wisconsin Forward Award recognized technical colleges display? Namely, do these colleges feature key characteristics that could benefit their peers if implemented in their organizational strategy and operations?
2. How do the Wisconsin Forward Award recognized technical colleges use their processes, systems, values, and culture to meet performance-based funding targets? Specifically, do their common organizational characteristics translate into effective practices and strategies for attaining performance criteria goals?

Research Methodology

The methodology of this study was qualitative research, an "inquiry approach useful for exploring and understanding a central phenomenon" (Creswell, 2012, p. 626) that uses broad, general questions and collects detailed evidence through personal observation and participant interviews (Lichtnam, 2013). The methodology was concerned with meaning formation, including how certain people or groups perceived and made sense of reality (Willig, 2001). Moreover, the method facilitated close examination of sensitive, complex, or difficult topics, enabling identification of previously unobserved connections (Griffin, 2002).

Qualitative research leads to understanding through inquiries that build a holistic, comprehensive picture of the participants' worldview amidst their natural environment (Creswell, 1998). It is an interpretive approach that grasps individuals' perspective (Merriam, 2002), describes experiences in words instead of numbers, and relies on inductive-analysis to identify key aspects (Krathwohl, 1998). This methodology met the needs of this study because it was flexible enough to allow interpretation of the data collected and allow presentation in a non-restrictive format (Creswell, 2012).

Complex, in-depth materials such as these necessitated profound insights impossible to address with a reductionist method, suggesting qualitative research as a suitable solution. A flexible method allowing the meaning of the study to unfold through thick descriptions and reflection and leading to "a larger understanding of the phenomenon" (Creswell, 2012, p. 626) was necessary for grasping the processes, systems, values, and culture shared by the institutions investigated and for reaching conclusions beneficial to leaders seeking improvement of their colleges' performance. Bogdan and Biklin (1992) indicated that qualitative designs such as the one employed by this study, are "the researcher's flexible plans on how to proceed" (p. 58) consisting of theoretical assumptions and procedures for collecting, analyzing, and reporting research.

Griffin (2002) suggested that a key difference between quantitative and qualitative research was the capacity of qualitative analysis to lead to in-depth, contextualized outcomes compared to the broad, generalizable results of quantitative studies. Other authors underscored the use of the qualitative research for studies such as this, indicating that it more appropriate for changing, fluid realities than quantitative analysis that assumes a fixed, agreed-upon phenomenon (Merriam, 2002). The qualitative method seized fine aspects that could have not been captured by number-based reports, in-depth analysis of a complex topic such as this being impossible with quantitative tools (Griffin, 2002).

Ethnography is a common qualitative research methodology that lends insight into day-to-day events, such as thoughts and activities (Wolcott, 2008). Ethnographic research examines and interprets patterns of behavior, beliefs, and culture of the individuals or groups within their natural context, and through reflexive analysis. The researchers' "background, gender, and history shape the account they report" (Creswell, 2012, p. 480), resulting in findings that are not expected to generalizable (Lichtman, 2013).

Case study is a type of ethnographic research design that describes, analyzes, and interprets the shared characteristics and patterns of behavior of individuals or groups over time (Lichtman, 2013). Cases can be narrowed to specific individuals or families, or broadened to processes, events, activities, or entities, key being the background that "has everything to do with human behavior and beliefs" (LeCompte, Preissle, & Tesch, 1993, p. 5).

Case studies rely on interpretive research design to reach their conclusions. Research designs connect the data observed data, the study questions, and the conclusions (Yin, 1994). Interpretive research design involves determination of the local, present meaning of actions (Gall, Borg, & Gall, 1996), and lends insight into individuals' experience and their interactions with their world (Merriam, 2002).

Case study was suitable for the goals of this research because it facilitated detailed insight into events, such as thoughts and activities (Wolcott, 2008). It was suited for solving the two research questions posed because by following a set of predetermined procedures (Yin, 1994), researcher involvement, and inductive investigation, it lead to appreciation of previously impossible insights, and “a richly descriptive end product” (Merriam, 2002, p. 178).

Case studies involve detailed study of specifically selected, information rich-cases. This study investigated Chippewa Valley, Western, and Milwaukee Area Technical Colleges, three Wisconsin Technical College System institutions identified for exhibiting characteristics of interest (Merriam, 2002). Specifically, the colleges were selected because they were recognized with the Wisconsin Forward Award within the past five years. The colleges were selected intentionally to “help appreciate the central phenomenon through a detailed understanding of people and sites” (Creswell, 2012, p. 206). The multi-case approach, allowing insights and comparisons impossible when a single case is used (Stake, 1995) was considered more convincing and generalizable than a specific example (Fraenkel, Wallen, & Hyun, 2012).

Subject Selection and Description

The population of this study consisted of the 16 Wisconsin Technical College System public, two-year, postsecondary educational institutions operating within the State of Wisconsin. Namely, the population included the Milwaukee Area, Madison, Northeast Wisconsin, Western, Chippewa Valley, Indianhead, Nicolet, Northcentral, Mid-State, Southwest, Blackhawk, Gateway, Lakeshore, Fox Valley, Moraine Park, and Waukesha County Technical Colleges. Purposeful sampling identified the research sample, resulting in the selection of three institutions fitting the criteria defined by the study goals.

Specifically, this multi-case research investigated Chippewa Valley, Western, and Milwaukee Area Technical Colleges, the three schools recognized with the Wisconsin Forward Award in the past five years. It examined and interpreted the patterns of behavior, beliefs, and culture of the individuals or groups studied within their natural context, resulting in rich, comprehensive understanding of the cases examined (Lichtman, 2013). The cases were culture-shaping groups where individuals or entities shared conduct, views, and language, interacted on a regular basis, and adopted patterns of thinking or talking (Creswell, 2012).

The three Wisconsin Technical College System institutions examined had similar missions and structures but different size, structure, practices, and target populations. Chippewa Valley Technical College serves the substantially rural, developing Western edge of Wisconsin with over 60 two-year degree programs, 25 technical certificates, and numerous professional development offerings (Chippewa Valley Technical College, 2012). Western Technical College positioned itself as the college of first choice in its Western Wisconsin region, its key customers being students in credit or non-credit bearing courses (Western Technical College, 2011). Of the three entities studied, Westerns was the smallest. Milwaukee Area Technical College served the greater Milwaukee metropolitan area with comprehensive services; the college offers over 200 associate degrees; technical diplomas; certificates; cooperative education, internship, and training opportunities to its diverse student body (Milwaukee Area Technical College, 2012). Milwaukee Area Technical Colleges was the largest of the three institutions analyzed. The institutions were pioneers in embark the organizational performance excellence journey through implementing the optional Wisconsin Forward Award quality framework.

Purposeful sampling was appropriate for supplying the data necessary for this analysis because it allowed deliberate selection of technical colleges that were information rich (Patton, 2002) or desirable for their Wisconsin Forward Award-relevant organizational processes, systems, values, and culture, as well as performance funding. Educational research substantiated selection of specific Wisconsin Technical College Institutions rather than investigating all of them positing, “an in-depth synthesis of purposefully selected studies is more desirable than a superficial synthesis of a large number of studies” (Suri, 2011, p. 63). Bogdan and Biklin (2007) supported purposeful sampling for case selection because a carefully picked sample is beneficial for formulating and developing theories.

Interview participants, leaders of Chippewa Valley, Western, and Milwaukee Area Technical Colleges, were chosen explicitly for their expertise and experience with organizational effectiveness and performance funding reporting. The individuals fit the criteria of possessing in-depth understanding of the processes, systems, values, and culture of their institutions, being “expert informants yielding the best understanding of what is being studied” (Fraenkel, Wallen, & Hyun, 2012, p. 436). More specifically, interviewees included two executives and/or financial performance professionals at each institute, for a total of six interviewees. Participant contact information was secured through the researcher’s personal and professional peer network, including Wisconsin Technical College System employees and Wisconsin Association for Career and Technical Education members.

Instrumentation

The first study instrument was a short, semi-structured questionnaire that guided the interviews conducted. The second tool was a digital audio recording device engaged in capturing the interview discussions. Both the questionnaire and the recorder assisted in collecting the raw data necessary for answering the two research queries.

The questionnaire contained four open-ended questions asking participants to share their experience with processes, systems, values, and culture in place at their institutions. The instrument, shown in Appendix Q, also asked participants to identify how these processes, systems, values, and culture were used for meeting performance-based funding criteria. The form was shared with participants in advance; yet the responses were gathered via phone interviews.

The questions used were intentionally very broad, opening the door for a wide array of responses relative to notable characteristics, strategies, and experiences relevant for gaining Wisconsin Forward Award recognition and now used within the outcome-based context. This format was supported by existing literature, Bogdan and Biklen (2007) suggesting that "qualitative researchers are not putting together a puzzle whose picture they already know; rather, they are constructing a picture that takes shape as they collect and examine the parts" (p. 6). The open-ended, yet standardized questions had the same wording and order for each participant, facilitating organization and analysis of the data, increasing comparability of responses, and reducing interviewer bias (Patton, 2002). The decision to rely on semi-structured interviewing was supported by existing studies advising, "qualitative researchers typically begin their interviews and/or observations with a target of interest, but are open to whatever emerges of significance and change their data collection accordingly" (Krathwohl, 1998, p. 26).

The instrument assisted in gathering data on the impact of past organizational learning on present operations, aiming to discern how key processes, systems, values, and culture translated into performance goal attainment. It helped capture information valuable for answering the study questions because it was shared with respondents in advance, allowing time for reflection and preparation. Due to its brief, yet broad format, the questionnaire collected data without limiting or leading responses. As in any qualitative research, it was important to permit flexibility in participant responses and refrain from influencing the outcomes through subjective questioning or overly rigid, structured interviewing. Used toward the end of the study, after the analysis of the Wisconsin Forward Award documents was completed, the semi-structured interview instrument helped “shape responses to the researcher’s perceptions on how things are, being most useful for obtaining information to test a specific idea” (Fraenkel, Wallen, & Hyun, 2012, p. 451).

The digital recording device used to record the interviews had a separate memory card for storing each meeting soundtrack, keeping the accounts isolated, protecting the raw data, and reducing the potential for information cross-contamination. Using recording devices was supported by existing literature suggesting that recorders are objective listeners that do not tune out, interpret, or omit responses (Patton, 2002). The soundtracks were downloaded onto a password-protected computer; the memory cards were locked for editing, and placed in the researcher’s safety deposit box, safeguarding participant privacy and data integrity. The technology instruments, including the recording device and its accessories, were beneficial for collecting, storing, and analyzing the data collected by the interviews (Fraenkel, Wallen, & Hyun, 2012). Bogdan and Biklin (2007) maintained documents and records as viable data, suggesting that their value for qualitative analysis lies in their richness and subjectivity.

Data Collection Procedures

The data collected for this multi-case study was located in the Wisconsin Forward Award application packages and evaluator feedback reports of Chippewa Valley, Western, and Milwaukee Area Technical Colleges. Audio recordings captured the information gathered during the phone interviews conducted with purposefully selected participants.

The first step in data collection was securing general permission to investigate the Wisconsin Forward Award documentation of each recognized college from the institutions themselves. This phase collected historical data publicly available on the web sites of the entities, and did not involve human subjects or raw data gathering.

The second data-collection step comprised of collecting new data through semi-structured phone interviews with a group of Wisconsin Technical College System leaders specifically selected for their expertise in organizational processes, systems, values, and culture, as well as performance funding. This second step implied research involving human subjects, rendering acquirement of Institutional Research Board approval from the research originating entity, University of Wisconsin-Stout, as well as the investigated technical colleges, as outlined by the research policies and procedures of the institutions in questions. Out of the three Wisconsin Forward Award recognized colleges investigated, only Milwaukee Area Technical Area required specific internal Institutional Research Board approval, which was secured through the appropriate channels prior to conducting the interviews. The University of Wisconsin-Stout and Milwaukee Area Technical College Institutional Research Board approval letters can be found in Appendix O and Appendix P.

The individuals designated as fitting the interview selection criteria had in-depth understanding of their institutions' operations and performance reporting. Specifically, the interviewees at each college were an executive and a financial professional. They received a short overview of the research goals, a description of the risks and benefits, and the interview questionnaire in advance to prepare for the discussion. The questionnaire is presented in Appendix Q. The informed consent form was attached to the email communication sent to the candidates' secure email address ahead of time, conferring an opportunity to ask clarifying questions prior to consenting to participate. Participants could choose to opt out from partaking in this study at any time before or during the investigation. The interviews lasted 20 to 40 minutes each, and took place at a mutually convenient date and time.

Participation in this study involved verbally answering four interview questions relative to the participants' experiences with their institutions' processes, systems, values, and culture in context of performance-based funding, as shown in Appendix Q. Interviewees described operational patterns displayed by their colleges and their perceptions relative to the use and effectiveness of these features for meeting state-mandated performance-based funding goals. A risk relative to partaking in the study involved the possibility of employers not welcoming participants' involvement, opinions, and/or the study's outcomes, potentially negatively affecting the respondents' careers. Latent adverse effects on the interviewees' professional standing was avoided by removal of all personally identifiable information, including names, institutions, job titles, etc. The informed consent provided to participants prior to starting the interviews clearly indicated that all data was to remain confidential, and outlined the use and safekeeping of the data collected during, and after conclusion of the study.

The collection methodology gave careful consideration to protecting the security and confidentiality of the data gathered through the interviews. Interviewee name and contact information was kept in the researcher's University of Wisconsin-Stout secure email account. Interviewees were advised to choose a private location for conducting the discussion. One copy of the digital interview recording was downloaded to a password-protected computer within one week of the interview, the original recording being placed in the researcher's secure safe box. Interviewee names and interview transcriptions were coded, with all personally identifiable information removed.

Data Analysis

The data collected was analyzed using qualitative software. The researcher examined the application documents and evaluator feedback reports of Chippewa Valley, Western, and

Milwaukee Area Technical Colleges, along with the transcriptions of the six semi-structured interviews conducted with selected participants. The document and transcripts, representing the sources of the study, were coded for recurring themes and patterns.

The content analysis methodology was advantageous for the study goals because answers could be discerned non-obstructively, economically, and relatively simply through analysis of written communications, without being limited by time or location (Fraenkel, Wallen, & Hyun, 2012). The approach was well suited for coding complex documents and semi-structured interview responses. A disadvantage of the approach was its limitation to recorded information and the difficulty of establishing validity through agreement on categories and meaning (Fraenkel, Wallen, & Hyun, 2012). N'Vivo is a leading research analysis software designed to assist qualitative researchers in collecting, organizing, analyzing, and reporting sources and findings including textual, audio, and visual materials (Stanford University, 2016). Nodes are placeholders used by the N'Vivo program for identifying and tracking themes found through the analysis process.

The first data analysis iteration involved uploading the sources into the N'Vivo software and creating a coding node structure beneficial for accomplishing the study goals. The texts were coded with attributes relative to their originating college, while the interviews were coded for college and interviewee role. This resulted in abbreviations A, B, and C representing the three colleges included in the study and S and F signifying the role of interviewees within their institutions. Text-analysis, a typical "systematic procedure for reviewing or evaluating documents" (Bowen, 2009, p. 27) and an interpretation of text in order to form meaning (Corbin & Strauss, 2008) was the main data analysis tool of this first round.

The guiding principle on quantity of sources analyzed was whether sufficient information was collected to effectively support the goals of the study (Merriam, 2002). Creswell (1998) indicated that sufficient data was collected when a saturation of data was reached and no new information emerged (Merriam, 2002).

The coding process rendered a list of common words and patterns, allowing identification of common organizational characteristics, namely processes, systems, values, and culture shared by the three Wisconsin Forward Award recognized technical colleges. The most often referenced items in the list were retained for further analysis, the rest of the terms being omitted.

The second data analysis iteration supplied specific answers to the two research queries. Regularly referenced words and patterns, called thematic nodes, pinpointed shared organizational processes, systems, values, and culture, allowing conclusions and recommendations relative to the first research query. The analysis of the interview transcripts followed a similar procedure, answering the second research question, namely, whether the distinguished Chippewa Valley, Western, and Milwaukee Area Technical Colleges used their organizational knowledge gained by application of the Wisconsin Forward Award framework in the performance-based funding operational environment. Additional cross-tabulations and reports were completed, as necessary, based on the most commonly referenced themes identified during the first round. The conclusions drawn facilitated researcher recommendations to Wisconsin Technical College System leaders interested in improving their institutions' alignment with performance-based funding criteria.

Limitations

Qualitative research, while a fitting choice for this investigation, has its limitations. For one, the ability to replicate a case study involving semi-structured interview is limited by the availability and willingness of interviewees to participate and their ability to recall specific details relevant for the goals pursued. Qualitative research history indicates that investigations involving series of interviews and/or systematic observations can reflect inconsistencies and contradictions within and between individuals' accounts (Burman & Parker, 1993). The small number of individuals engaged as participants can, too, be considered a limitation, because the recommendations made based on the findings are sometimes "less likely to be taken seriously by other academic researchers or by practitioners and policy makers" (Griffin, 2002, p. 10).

The subjective aspects of any qualitative investigation, including sample selection, document coding and analysis, assumptions made, and conclusions drawn affect the extent in which a repeat study can result in the exact same conclusions. Concerns such as researcher bias, including views on organizational leadership, higher educational funding philosophies, and professional experience, along with subjectivity involving the status and relationship of researcher and respondents can limit the impact of the results, being discounted as a methodology (Reyes & Halcon, 1988). Creswell (2012) defined the role of the researcher as "an observational role in which they take part in activities in the setting they observe" (p. 595). Poole (2002) indicated, "the researcher must be aware of personal and participant biases that may harm the validity of research endeavors" (p. 52), limiting the validity of the study.

Use of the N'Vivo industry-recognized and validated qualitative software pursued reduction of subjectivity in analysis and findings, understanding that attainment of clear-cut objectivity is not possible within qualitative investigations. This design helped ensure that the researcher remained an objective investigator that gathered and analyzed data with the intention of constructing meaningful information (Merriam, 1998). The case study examined and interpreted patterns of behavior, beliefs, and culture of individuals through reflexive inquiry, the researchers' "background, gender, and history shaping the account reported" (Creswell, 2012, p. 480). Consequently the results are not generalizable.

Finally, despite the measures taken to assure exact and complete recording of the documents analyzed and interviews conducted, it is possible that technical difficulties related to recording or discerning the content of the discussions, and/or text missing from the Wisconsin Forward Award application documents and evaluator reports affect the conclusions drawn by this analysis. Specifically, during the document uploading and scanning process, and interview recording transcription certain words or phrases could have been omitted, misunderstood or taken out of context, affecting the reliability of the findings.

Summary

This multi-case study relied upon qualitative research methodology for answering two questions. The study used interpretive qualitative research design and content analysis for reaching its conclusions. This flexible methodology suited the complex topic of shared organizational processes, systems, values, and culture, and their use and effectiveness for performance funding in Chippewa Valley, Western, and Milwaukee Area Technical Colleges.

The case study approach allowed for suppleness in collecting diverse, subtle, potentially sensitive data necessary for fully understanding organizational features and their value in performance funding at the three colleges investigated.

Chapter IV: Presentation of the Findings

This chapter presents the findings of the multi-case qualitative research investigating whether Chippewa Valley, Western, and Milwaukee Area Technical Colleges shared organizational processes, systems, values, and culture, and whether they used their common features to attain performance-based funding targets. The study posed the following two research questions:

1) What common organizational processes, systems, values, and culture do the Wisconsin Forward Award recognized technical colleges display? Namely, do these colleges feature key characteristics that could benefit their peers if implemented in their organizational strategy and operations?
2) How do the Wisconsin Forward Award recognized technical colleges use their processes, systems, values, and culture to meet performance-based funding targets? Specifically, do their common organizational characteristics translate into effective practices and strategies for attaining performance criteria goals?

The research questions framed the study, guiding the data analysis. The inquiry involved the information available in the Wisconsin Forward Award applications and evaluator feedback reports of Chippewa Valley, Western, and Milwaukee Area Technical Colleges. Additionally, data was collected through phone interviews with professionals with knowledge and experience in organizational processes, systems, values, and culture and performance-based funding. Of the six interviewees, three were executives and three were financial professionals working at the three colleges participating in this study. There were two interview participants from each college. The four interview questions were related to the processes, systems, values, and culture used by Chippewa Valley, Western, and Milwaukee Area Technical Colleges, as well as their usage and effectiveness for reaching performance-based funding goals within the respective colleges. The data collection instrument is shown in Appendix Q.

The analysis involved two rounds, the first identifying general patterns and themes across the sources, while the second finding specific answers to the research questions. Source documents included the Wisconsin Forward Award application documents and evaluator feedback reports of Chippewa Valley, Western, and Milwaukee Area Technical College, and the transcriptions of the interviews conducted. Wisconsin Forward Award sources were coded according to originating college, while interviewees were linked to their college and position.

The first iteration of analysis resulted in a collection featuring the 25 highly referenced themes. Themes were tracked in the N'Vivo qualitative analysis software using thematic nodes aligned with the logical structure of the data sources. N'Vivo is an industry recognized data analysis software used for collecting, organizing, analyzing, and reporting qualitative research sources and findings including textual and audio-visual materials (Stanford University, 2016).

The second reiteration filtered and cross-tabulated the themes to identify processes, systems, values, and culture common to the three colleges investigated, looking at how the institutions used their features in meeting outcome targets. It evaluated key organizational configurations in light of their usage and effectiveness for performance fund attainment.

The findings are presented in a narrative format common to qualitative studies. Narrative reporting by themes or categories is one of two main approaches in presenting qualitative research (Burnard, Gill, Stewart, Treasure, & Chadwick, 2008). Research experts found that presenting qualitative research findings in a narrative discussion form (Krathwohl, 1998) is suited for "describing casual systems in living color" (Creswell, 2012, p. 334) with direct quotes to support the findings. Linking case study results with literature review outcomes, research goals, and discussion is customary (Burnard et al., 2008).

Findings are subject to reflexivity characteristic of qualitative studies, interpretations being constructed without the existence of a single interpretative truth (Denzin & Lincoln, 2011). Shaw (2010) indicated, "implication of our social situatedness is that we experience and interpret the world from a particular perspective and we can never fully escape this subjectivity" (p. 235), suggesting that the researcher's experience, beliefs, presuppositions, etc. play a significant role in creating the horizon or sphere of understanding (Gadamer, 1975).

The subheadings that follow designate the framework and findings of the analysis organized according to the two research questions and the major and minor outcome-themes.

Demographics

This research investigated three Wisconsin Technical College System institutions. Wisconsin Technical College System colleges, while all engaged in progressing the economic prosperity of their districts, differ in size, population served, and leadership. Chippewa Valley, Western, and Milwaukee Area Technical Colleges included in this study, along with their peers are governed by Chapter 38 of the Wisconsin Statues, and report to the Wisconsin Technical College System Board (Wisconsin Technical College System, 2016b).

Chippewa Valley Technical College attends to the needs of the substantially rural, fast-growing Western edge of Wisconsin with business, health, and manufacturing, and transfer coursework. Four campuses and three education centers feature over 60 two-year degree programs, 25 technical certificates, and a wide array of professional development and training needs. The Liberal Arts Associate of Science degree is a special program that "allows students to enroll for 40 credits of general education coursework before transferring to a four-year university to complete a baccalaureate degree" (Chippewa Valley Technical College, 2012, xxiii).

The vision of Western Technical College is to be the college of first choice in its Western Wisconsin region. The college's key customers are students enrolled in credit or non-credit bearing courses at its main campus or seven learning centers and trainees attending one of its corporate or community training facilities (Western Technical College, 2011). Of the three colleges studied, this was the smallest, yet most progressive college from a quality management perspective.

Milwaukee Area Technical College is a "comprehensive, multi-campus, public two-year technical college that serves the greater Milwaukee metropolitan area" (Milwaukee Area Technical College, 2012). The entity offers over 200 associate degrees, technical diplomas, and certificates, and facilitates cooperative education, internship, and training opportunities educational and training opportunities to its diverse student body. As the largest Wisconsin technical colleges, it fulfills its mission via four campuses, 11 satellite sites, 40 community centers, as well as various distance and blended educational opportunities (Milwaukee Area Technical College, 2012).

Item Analysis

The sources for the data analysis were the Wisconsin Forward Award documents of Chippewa Valley, Western, and Milwaukee Area Technical Colleges and the transcriptions of the interviews conducted. The Wisconsin Forward Award application and evaluator feedback reports were uploaded to the N'Vivo qualitative research software for examination. The phone interviews conducted were recorded, transcribed, and added to N'Vivo for analysis.

Sources entailed two interviews, one application, and one feedback report per college. Interview participants were an executive and a financial expert per institution. The four interview questions posed related to the processes and systems, and values and culture of the interviewees' organizations, as well as to their usage and effectiveness for performance-based funding goals. The instrument used for conducting the semi-structured interviews is shown in Appendix Q.

Sources were linked to their entity of origin using letters A, B, and C and interview participant roles were abbreviated with letter S and F representing their position within the college. Coding the sources with attributes revealed patterns pertinent to each individual and the group of colleges based on document type, originating institution, interviewee role, and gender. Coding played an essential role in answering the research questions because it lead to conclusions relative to themes referenced by interviewees, helping discern associations with individual or all three colleges. The qualifiers also facilitated determination of the origin of findings, namely whether the sources of the findings were Wisconsin Forward Award documents or interview transcripts.

The data analysis involved creation of N'Vivo nodes for emerging themes as shown in Appendix A. Nodes are placeholders used by the N'Vivo qualitative analysis software for identifying tracking and reporting on themes found during the analysis process. The theme structure coincided with the eight Wisconsin Forward Award categories and the four interview questions. The themes were categorized in N'Vivo folders, separating interview, application, and feedback themes to expedite analysis and reporting relative to the patterns emerging within each group.

Headings used for coding the applications were organizational profile, leadership, strategic planning, customer focus, measurement, analysis, and knowledge management, workforce focus, operations focus, and results, a structure borrowed from the format of the Wisconsin Forward Award documentation. Headings for feedback reports followed the same assembly, with addition of strengths and improvement areas, and a scoring subgroup for each coding category. The headings of the interview transcript coding coordinated with the four questions asked during the interview, namely processes and systems, values and culture, role in performance funding, and effectiveness for meeting performance goals.

A brief overview of the content of each Wisconsin Forward Award operational category follows. The first category, leadership, revolves around the way senior leaders defined the organizational mission and purpose, the future vision, and values by which institutions are managed. Strategic planning, the second coding group, talks about the organizational forecasting, requiring a description of the process, and the summary of goals. Customer focus identifies customers, their needs, and "the ways organizations manage relationships that keep them satisfied" (Graham-Brown, 2013, p. 26). Measurement, analysis, and knowledge management, the fourth group, related to measures of organizational performance, is at the core of the evaluation criteria (Graham-Brown, 2013). Workforce focus is about the ways organizations build relationships and manage their workforce, while operation focus revolves around "completing work, managing control, and improving major work processes" (Graham-Brown, 2013, p. 38). Results, the most extensive category, is broken into five groups covering the different result types tracked (Graham-Brown, 2013).

Subheadings within the N'Vivo theme structure also followed the sources' natural setup. Themes were organized in categories organizational description and situation; senior leadership;

governance and societal responsibility; strategy development and implementation; customer engagement and voice of customer; management of information, knowledge and information technology; and measurement, analysis, and improvement of organizational performance. Additional subheadings were workforce engagement and environment; work processes and systems; student learning and process outcomes; customer and workforce focused outcomes; leadership and governance outcomes; and budgetary, financial, and market outcomes.

Each group with the exception of results contained subgroups that aligned with the Wisconsin Forward Award evaluator feedback report outline.

Depending on the complexity of the source document, the coding process lead to one, two, or three heading levels. Applications used two heading levels, evaluator feedback reports required three heading levels, while one level sufficed for coding the transcripts. This setup facilitated pattern identification because it identified the topics themes were associated with, allowing for recognition of connections within, and across groups.

The data was inspected for emerging patterns across the topics. Some topics had only three or four, while others were associated with fifteen or more themes. Themes were tracked using N'Vivo nodes, a distinct node being created for subjects central to each paragraph. A node is a technical term used for the themes identified through text-analysis and saved in N'Vivo. The paragraph containing each subject was highlighted and linked to the appropriate N'Vivo node. If the node already existed under that heading, the paragraph was coded to the node; if the node did not yet exist within the group, a new node was created to track the theme and its location. Coding the twelve source documents revealed repeating themes associated with different headings, suggesting that the pattern recurred across sources and levels.

The final step of the analysis was a report showing all the themes founds. The report outlined 45 distinct themes, listing their location, source, and number of references. The 45 themes were associated with 3,224 references encompassing references collected under the organizational profile; leadership; strategic planning; customer focus; measurement, analysis, and knowledge management; workforce focus; operations focus; and results group as shown in Appendix A. The number of sources each theme was associated with played a key role in answering the first research question as it showed whether the themes were representative of all, rather than just some of the colleges investigated. The number of references was, too, important in showing the relative prominence of themes within their own, or across topics. The total number of references made to each theme varied widely, from as few as ten mentions for specific terms up to as many as 681 total references for generic topics. The number of times each theme was mentioned in each topic or across headings representing college functions was key because it signified the importance of the theme within and across operations.

The list was reduced to an itemized list of 25 commonly referenced themes, as shown in Appendix B. The most-mentioned themes were investigated further, while themes with fewer than fifteen references, deemed irrelevant for accomplishing the study goals, were omitted from analysis. The inquiry proceeded to identifying the processes, systems, values, and culture elements shared amongst Chippewa Valley, Western, and Milwaukee Area Technical Colleges. The analysis used cross-tabulations, figures, and interview quotes to demonstrate patterns relevant for reaching its conclusions. Shared processes, systems, values, and culture were first discerned from Wisconsin Forward Award documents, and then confirmed by the interview findings. The interviews presented the current situation compared to the more historical view of the application and feedback files.

The interviews conducted were semi-structured phone meetings conducted with six professionals purposefully selected for their expertise in performance funding and college operations. An executive and a financial professional were interviewed at each college. Participants were asked four questions relative to the processes, systems, values, and culture of their respective colleges, and their perceptions on the usage and effectiveness of these characteristics for attaining performance-based funding goals, as shown in Appendix Q.

The recordings were transcribed and uploaded to the N'Vivo qualitative research analysis software to serve as source documents for the analysis. The coding steps were identical to the process described earlier relative to analyzing the Wisconsin Forward Award documents. Resulting was a collection of themes prevalent in the interview responses, categorized under four headings. The headings matched the four interview questions used; they were processes and systems, values and culture, usage of organizational features for attaining performance funding, and effectiveness in meeting outcome targets. This organization served the goals of the study by lending itself to analysis and reporting. Appendix N lists the interview themes with more than five references, while the actual data collection instrument can be referenced in Appendix Q.

Findings Relative to the First Research Question

The analysis and findings described below answered the first research question, namely:

1) What common organizational processes, systems, values, and culture do the Wisconsin Forward Award recognized technical college display? Namely, do these colleges feature key characteristics that could benefit their peers if implemented in their organizational strategy and operations?

Major themes. Mills (1959) defined themes as "some concept or theory that emerges from the data; some signal trend, some master conception, or key distinction" (p. 216). Relative to the first research question, the major themes found were grouped in two categories, namely processes and systems, and values and culture. The two main categories encompassed a number of sub-themes emerging from the content-analysis process.

Processes and systems. The twenty-five most commonly referenced themes in the Wisconsin Forward Award documents were used to create a concept map visual that highlighted the five major process and systems groups identified based on their role within college operations. The frequently mentioned themes are outlined in Appendix B. Figure 1 showcased common process and systems patterns across the three Wisconsin Forward Award recognized technical colleges investigated, namely that the five shared process and systems groups were quality, benchmarking, feedback, strategic planning, and societal responsibility.

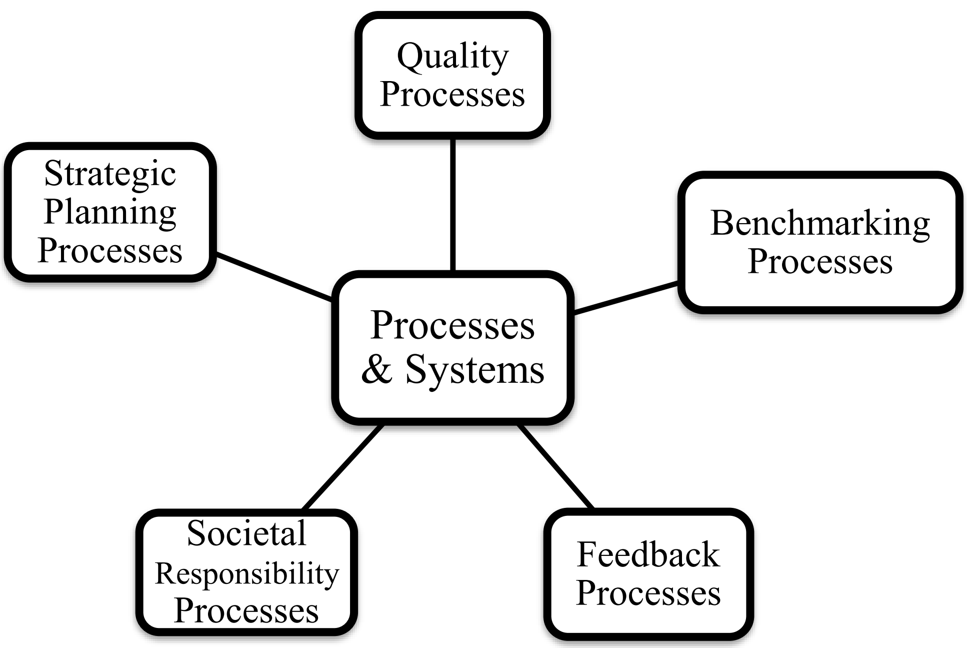

Figure 1. Common organizational processes and systems.

Quality processes and systems included the Academic Quality Improvement Program, the Plan Do Check Act method, the Higher Learning Commission accreditation activities, the Quality Review Program, and budgeting. Strategic planning involved mission and vision, core values, and core competencies. Benchmarking involved Wisconsin Technical College System and competitor comparisons, Integrated Postsecondary Education Data System reports, and National Community College Benchmarking Project topics. Feedback processes and systems comprised the Personal Assessment of College Environment, the Student Satisfaction Inventory, and the Community College Student Success Engagement surveys, as well as advisory committees and partnerships listening sessions. Finally, the broad societal responsibility group encompassed diversity, equity, safety, emergency preparedness, sustainability, and financial accountability processes and systems.

Figure 1 summarized findings relative to the common process and systems categories used by Chippewa Valley, Western, and Milwaukee Area Technical Colleges. The finding that the examined institutions shared quality, benchmarking, feedback, societal responsibility, and strategic planning processes and systems answered part of the first research question.

The interview findings supported the inferences made based on the Wisconsin Forward Award sources. Participant responses confirmed that the process and systems common to Chippewa Valley, Western, and Milwaukee Area Technical Colleges based on the outcomes of the Wisconsin Forward Award document analysis remained dynamic organizational features despite the context altered by performance funding legislation. As outlined in Appendix N, the researcher found that the shared processes and systems were regularly executed. Three or more interviewees itemized the Academic Quality Improvement Process used by Higher Learning Commission accreditation, the Quality Review Process applied in the Wisconsin Technical College System, the Plan Do Check Act method, and budgeting, some of the most often referenced themes in the Wisconsin Forward Award files. The relevance of feedback and benchmarking activities were, too, underscored by several interviewees. These interview findings strengthened the answers given to the first research question based on analyzing the Wisconsin Forward Award source files.

Quality processes and systems. The Higher Learning Commission's Academic Quality Improvement Program pathway, the Quality Review Process, and budgeting were the most common quality processes and systems used by Chippewa Valley, Western, and Milwaukee Area Technical Colleges.

The Academic Quality Improvement Program was found to be a key quality system for all three colleges investigated. The Academic Quality Improvement Program is an alternative pathway to accreditation. It is a performance-excellence model designed to help instill continuous improvement in higher education through "a quality mindset critical to achieving the distinctive higher education mission they have set for themselves" (Spangehl, 2012, p. 29).

The Academic Quality Improvement Program was itemized in Wisconsin Forward Award applications in the organizational description; organizational situation; senior leadership; governance and societal responsibility; voice of customer; measurement, analysis, and improvement of organizational performance; workforce; work systems and processes operational categories; as well as in student learning and process; customer and workforce; and leadership and governance outcomes groups. Additionally, the Academic Quality Improvement Program was called out in senior leadership improvement, strategy implementation strengths; management of information, knowledge, and information technology strengths; workforce strengths; and leadership and governance outcomes strengths areas by the Wisconsin Forward Award feedback reports. This finding indicated that the Academic Quality Improvement Program was a consistently used quality initiative across Chippewa Valley, Western, and

Milwaukee Area Technical Colleges, being embedded in operations and an active contributor of results.

Quotes supporting these findings follow. Chippewa Valley Technical College's application (2012) which stated, "the college's performance improvement system involves a comprehensive review at the institutional level and down to team and individual levels; additionally, the college uses the Academic Quality Improvement Program to ensure compliance in its accreditation process" (p. xxvii), noting "budget requests are reviewed and negotiated by the Senior Leadership Team to best align the institution's budget with its mission, vision, and core competencies" (p. 27). Western Technical College's performance improvement system consists of three major components, "including college and program scorecards, comprehensive evaluation of instructional programs through the Quality Review Process, and cross-functional teams that address organizational and student performance issues using the Plan Do Check Act method" (Western Technical College, 2011, p. xv). Milwaukee Area Technical College was "committed to continuous improvement processes using a Plan Do Check Act learning cycle and other relevant data" (Milwaukee Area Technical College, 2012, p. v).

Interviewee testimonials reinforced the discoveries made based on Wisconsin Forward Award documents. One of the respondents suggested, "Western is part of a network called Continuous Quality Improvement Network involving primarily colleges and universities; is very beneficial to utilize for various issues, including quality issues, and best practices" (C. S., personal communication, 2016). A Chippewa Valley Technical College respondent specified, "we have feedback that comes through the Higher Learning Commission; we are an Academic Quality Improvement Program college, so we are required to do an annual portfolio" (A.S., personal communication, 2016).

Benchmarking processes and systems. The findings highlighted benchmarking as a theme across the operations of the three colleges. Benchmarking processes and systems, namely Wisconsin Technical College System-specific comparisons, National Community College Benchmarking Project benchmarks, Integrated Postsecondary Education Data System reports, and Strengths, Weaknesses, Opportunities, and Threats assessments were found to be common across Chippewa Valley, Western, and Milwaukee Area Technical Colleges. These results are shown in Appendix E.

Supporting evidence relative to the use of benchmarking tools, such as the Continuous Quality Improvement Network and Wisconsin Technical College System Quality Review Process comparisons, and Strengths, Weaknesses, Opportunities, and Threats appraisals across the three colleges investigated follow. Milwaukee Area Technical College (2012) documents explained, "a Strengths, Weaknesses, Opportunities, and Threats analysis conducted in 2011 revealed strategic advantages, including MATC's competitive cost" (p. v). Western (2011) used "a variety of sources for comparative and competitive data" (p. xiv) and benchmarked "against fifteen other postsecondary institutions in Wisconsin with similar missions, visions, values, organizational structures, policies, student demographics, and resources" (p. xiv).

Feedback processes and systems. Similar inferences were made for the feedback group and its Personal Assessment of College Environment, Student Satisfaction Inventory, advisory committees, Community College Student Success Engagement surveys, and partnership-listening elements, as presented in Appendix F.

The findings were supported by quotes taken from Wisconsin Forward Award files. Western Technical College's documents (2011) stated, "Western's participation in the Higher Learning Commission's Academic Quality Improvement Program, Baldrige Performance

Excellence Program, and the Continuous Quality Improvement Network provides an opportunity for the college to receive feedback from peers and individuals outside education" (p. 4). Milwaukee Area Technical College (2012) indicated that stakeholders provided input through "focus groups, cross-functional teams, District Board meetings, Conversation and MATC Days, town hall meetings, advisory committees, student follow-up surveys, Student Government, college complaint systems, the Strategic Planning process, and through formal audits and site visits" (p. 21).

An alternative example supporting these findings was the Western Technical College interviewee's explanation on program advisory committees where "employers from our district come in and talk about what's new and emerging in the profession, and work with our faculty members to build that into the curriculum so that we're keeping our students relevant" (C. F., personal communication, 2016).

Societal responsibility processes and systems. The broad societal responsibility category included equity, diversity, safety and emergency preparedness, sustainability, and financial accountability-related processes and systems across various college operations. The three colleges investigated by this study defined their societal responsibility differently, highlighting diverse financial, environmental, and social stewardship initiatives within their Wisconsin Forward Award applications. This indicated that the societal responsibilities of Chippewa Valley, Western, and Milwaukee Area Technical College needed a clearer definition.

Examples are listed below. Chippewa Valley Technical College's Wisconsin Forward Award application (2012) indicated, "the college is cognizant of conserving resources and maximizing efficiencies and effectiveness; environment and energy consumption are monitored" (p. 5). Milwaukee Area Technical College (2012) was "meeting its commitment in increasing the potential and productivity of the people in the district through development and delivery of high-quality educational programs" (p. 33), and Western (2011) has "identified best practices related to emergency readiness and safety for its key customers, employee groups, and stakeholders" (p. 6).

Strategic planning processes and systems. Appendix G presents the strategic planning-related conclusions. As outlined in the table, strategic planning and its elements, mission and vision, core values, and core competencies were found to be shared organizational features of Chippewa Valley, Western, and Milwaukee Area Technical Colleges.

Wisconsin Forward Award documents underscored these conclusions. Western Technical College (2011) noted, "strategic planning propels the organization towards its vision of college of first choice in the region" (p. 7) and "drive the selection of data that is used to track daily operations and overall organizational performance" (p. 8). Chippewa Valley Technical College (2012) had "a comprehensive, collaborative strategic planning process that addresses strategic challenges, shapes annual operations, and informs the future" (p. 6), while at Milwaukee Area Technical College (2012) the annual strategic planning process allowed for "constant evaluation of external and internal factors influencing the college to build upon advantages and focus on challenges" (p. 7).

Values and culture. After establishing the processes and systems common to Chippewa Valley, Western, and Milwaukee Area Technical Colleges, the investigation turned to the aspect of culture. Mission and vision, core values, and core competencies were correlated with student focus, a highly referenced, wide category encompassing ways the colleges helped their students succeed. These findings provided answers to the second part of the first research question investigating whether the colleges shared values and culture elements.

Mission, vision, values, and competencies. Appendix H, a cross-tabulation of the mission and vision, core values, and core competencies in relation to student focus, showcases a shared philosophy across the entities. The findings indicated that student-focused organizational culture was a shared characteristic of Chippewa Valley, Western, and Milwaukee Area Technical Colleges.

The Wisconsin Forward Award applications supplied evidence for student centered college missions stating, “Milwaukee Area Technical College offers quality educational and training opportunities and services to its diverse, metropolitan community by collaborating with partners to advance the lives of its students” (Milwaukee Area Technical College, 2012, p. 13) and that the college pursued a vision of “enriching, empowering, and transforming lives in the community” (Milwaukee Area Technical College, 2012, p. 13). Western Technical College’s mission (2011) suggested, “Western Technical College provides relevant, high quality education, in a collaborative and sustainable environment that changes the lives of students and grows our communities” (p. xi). Chippewa Valley Technical College’s vision (2012) was “to be a dynamic partner for students, employers, and communities to learn, train, and succeed” (p. xxviii), its mission being “to deliver innovative and applied education that supports the workforce needs of the region, improves the lives of students, and adds value to our communities” (p. xxviii).

The interview findings reinforced the findings of the Wisconsin Forward Application document-based analysis relative to the second part of the first research question investigating the values and culture shared by Chippewa Valley, Western, and Milwaukee Area Technical Colleges. Specifically, it found that interview participants felt strongly about the values and culture of their respective organizations, perceiving them as drivers of organizational mission and performance. Student focused mission, values, and culture elements were identified by four interview participants, underscoring their relative relevance and denoting that student focused values and culture were, in the perception of the study participants, central organizational features. The interviews concluded that the colleges maintained their traditional identities and vision in the performance-based funding context. These findings are shown in Appendix N.

Interviewee insights on shared values and culture indicated that Western Technical College had “a value statement we stand by; we value the success of our students and hold ourselves accountable for providing excellence in student learning” (C. S., personal communication, 2016) and that at Milwaukee Area Technical College the “values are centered around our students; we create an environment that serves our students and helps them to get the education that they are seeking” (B. F., personal communication, 2016). Chippewa Valley Technical College respondents suggested “we have four core values; they guide our decision-making” (A. S., personal communication, 2016) and that “our mission, values, and culture; that is who we are, what we are about” (A. F., personal communication, 2016).

Student success indicators. Another aspect of analyzing shared organizational values and culture involved measuring progress toward creating a student-focused culture. Indicators quantifying the institutions’ student focus, such as student satisfaction or academic success were key to this study. Figure 2, a visual representation of the connection between student focus and its indicators clarified the values and culture shared by the three institutions investigated.

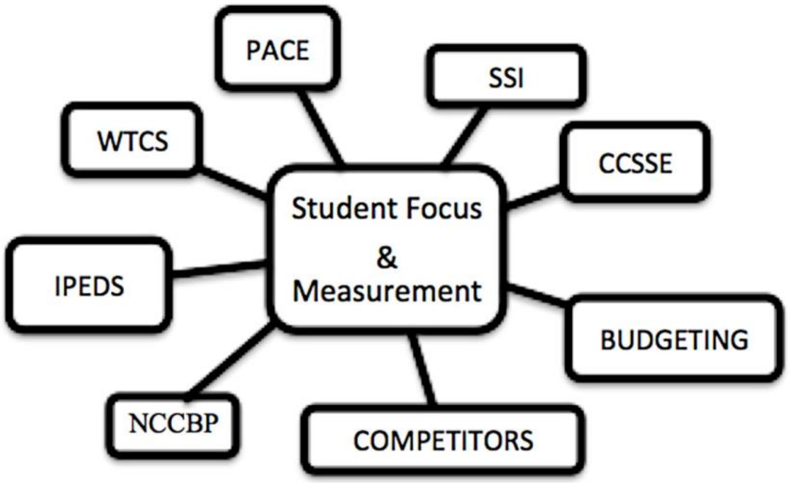

Figure 2. Student focus measurement processes and systems.

Findings specified that tools such as the Personal Assessment of College Environment, Student Satisfaction Inventory, Community College Student Success Engagement surveys, Integrated Postsecondary Education Data System and Wisconsin Technical College System reports, National Community College Benchmarking Project records, as well as competitor-benchmarking were all common amongst the colleges. The first three tools were used to collect feedback from students, while the rest compared student satisfaction results to peer institutions operating within or outside the Wisconsin Technical College System.

Student focus indicators were itemized in organizational situation and measurement, analysis, and organizational performance. The importance of the student-focused organizational culture was confirmed by their alignment with the voice of customer, student learning and process outcomes, and senior leadership groups. The findings, shown in Appendix I, indicated a shared student success orientation among Chippewa Valley, Western, and Milwaukee Area Technical Colleges, clarifying the answers for the second portion of the first research question.

Quotations taken from the Wisconsin Forward Application files of the three colleges supported the conclusions that the three colleges investigated were open to listening to their students. Chippewa Valley Technical College files (2012) suggested that the college determined "student and stakeholder satisfaction relative to its competitors through Student Success Inventory and Community College Student Success Engagement surveys" (p. 13), and that the "National Community College Benchmarking Project provides additional benchmarking related to these aspects " (p. 13). Western Technical College's Wisconsin Forward Award application (2011) mentioned "Western uses the Noel-Levitz Student Satisfaction Inventory to gauge student satisfaction in a variety of areas; in addition, Western administered the Community College Student Success Engagement survey" (p. 14) and that "the college values ongoing communication and shared decision-making" (p. 3), and that listening mechanisms provided "an opportunity for the college to identify student and stakeholder expectations, measure satisfaction and perception, identify opportunities for new programs and services, and grown and maintain its position as college of first choice in the district" (p. 13). Additionally, Milwaukee Area Technical College (2012) indicated, "students have the opportunity to provide feedback throughout all stages of the educational lifecycle through the Noel Levitz Student Success Inventory, Community College Student Success Engagement surveys, the Wisconsin Technical College System Graduate Follow-up surveys, and other indicators" (p. 14-15).

Minor themes. The findings involved a number of additional themes as well. These unexpected, hard to classify, or less prevalent patterns were considered minor themes (Creswell, 2012). Creswell (2012) defined these themes as, "minor secondary ideas in a database" (p. 249).

Findings themes, "means of organizing and interpreting data in a content analysis by grouping codes as the interpretation progresses" (Fraenkel, Wallen, & Hyun, 2012, p. G-9), don't always fit broad major outcome categories. Rather, they require creation of a secondary list beneficial for informing readers about the study outcomes. In this multi-case study, minor findings related to the Academic Quality Improvement Program and the Plan Do Check Act processes and systems.

Academic Quality Improvement Program. The findings relative to the first research question suggested that the Academic Quality Improvement Program played a particularly important role in the colleges' operations. The Academic Quality Improvement Program is an alternative pathway for Higher Learning Commission reauthorization, the program's goal being "to infuse the principles and benefits of continuous improvement into the culture of colleges and universities in order to assure and advance the quality of higher education" (Higher Learning Commission, 2015, p. 1).

Although both the Academic Quality Improvement Program and the Wisconsin Forward Award are aligned with the Malcolm Baldrige Performance Excellence framework, five interviewees itemized the first route, only two mentioning the latter. The study found that the Academic Quality Improvement Program was associated with Higher Learning Commission accreditation, emerging as a pathway of choice for all three colleges. The Wisconsin Forward Award, in turn, was seen by the majority of interviewees as of value only when associated with reauthorization, and not as an optional organizational performance system. Western Technical College was the only exception, college leadership endorsing the program for its business benchmarking and organizational learning benefits.

Quotes taken from the Wisconsin Forward Award source documents indicated that Chippewa Valley Technical College (2012) "was accepted as a pilot school into AQIP, the new quality improvement accreditation process, in 2002" (p. 5) and that Milwaukee Area Technical

College provided internal recognition for AQIP activities (Milwaukee Area Technical College, 2012). Western Technical College (2011) suggested that the college "participated in the Higher Learning Commission's Academic Quality Improvement Program (AQIP) to receive feedback from peers and individuals outside education" (p. 10).

Respondents confirmed the Wisconsin Forward Award document-based conclusions, emphasizing the importance of the Academic Quality Improvement Program in comparison to the Wisconsin Forward Award, especially for accreditation. A Milwaukee Area Technical College participant indicated, "we are an AQIP school for the HLC; at one point, we were able to use Wisconsin Forward for our accreditation with the HLC, but then HLC removed that AQIP option" (B. S., personal communication, 2016). A Chippewa Valley Technical College interviewee (2016) explained:

> The Baldrige option was available for a short time through AQIP in place of the standard AQIP methodology. If we were to do another Forward Wisconsin, it wouldn't take the place of a regular AQIP process we now have to follow for Higher Learning Commission. (A.F., personal communication)

Plan Do Check Act. Plan Do Check Act was another minor theme in the findings relative to the first research question. Plan Do Check Act is a four–step model for carrying out change that resembles a circle repeated again and again for continuous improvement (American Society for Quality, 2015a). This process was only identified in two of the three colleges investigated, but it was included due to its repeated mention by interviewees indicative of its role in college operations. Plan Do Check Act related conclusions did not indicate a link between implementation of this process and improved Wisconsin Forward Award achievement, but indicated reliance on the continuous quality improvement process in strategy and student success activities.

Excerpts from Wisconsin Forward Award source files underscored the outcomes. At Western Technical College (2011) "senior leaders create an environment for organizational performance improvement by modeling the PDCA cycle" (p. 12), the PDCA process being "used to adjust plans to meet changing needs of stakeholders" (p. 14). The documents also noted, "Western practices the PDCA in its improvement efforts; adjusting and reprioritizing is common practice as part of the PDCA model" (p. 34). An interview quote specified PDCA as key organizational practice in Western Technical College as well, indicating, "we believe pretty heavily in the Plan Do Check Act process, so when we establish a new initiative, or even when we look at programs and services we are providing to our students, we try to put those through the PDCA process" (C.F., personal communication, 2016).

Milwaukee Area Technical College adapted the method to suit the needs of its faculty, renaming it Plan Teach Assess, Analyze, Adjust. The Plan Teach Assess, Analyze, Adjust adaptation of the Plan Do Check Act cycle was mentioned several times in the colleges' Wisconsin Forward Award documents while interviewees indicated, "as an institution, we've instituted the Plan Do Check Act cycle for our processes and for improvement; we've adapted it for our teachers, and call it Plan Teach Assess, Analyze, Adjust" (B.S., personal conversation, 2016).

Findings Relative to the Second Research Question

The remainder of the findings answered the second research question, posed as:

2) How do the Wisconsin Forward Award recognized technical colleges use their processes, systems, values, and culture to meet performance-based funding targets?

Specifically, do their common organizational characteristics translate into effective practices and strategies for attaining performance criteria goals?

Major themes. Relative to the second research question, the major themes were categorized relative to usage, and effectiveness of shared processes, systems, values, and culture for performance-based funding within Chippewa Valley, Western, and Milwaukee Area Technical Colleges.

Usage of processes, systems, values, and culture. Answering the question of how the colleges used their quality, benchmarking, listening, strategic planning, and societal responsibility routines in the performance-based funding environment involved analyzing the connections between the five major process and system categories and their contributing themes across organizational operations. The investigation identified the Wisconsin Forward Award categories the processes and systems were used within.

Quality processes and systems. The findings presented in Appendix J indicated that quality processes and systems played a role in leadership, societal responsibility, customer and workforce satisfaction, and measurement undertakings. The fact that quality processes and systems were itemized in several categories stressed that they were integrated in college operations.

Relative to the way the Academic Quality Improvement Program was used across Chippewa Valley, Western, and Milwaukee Area Technical Colleges, the Wisconsin Forward Award assessor feedback provided to Milwaukee Area Technical College noted, “AQIP projects and strategy work teams promote open communication, represent diverse ideas and workplace cultures, and provide alignment to the strategic plan” (Milwaukee Area Technical College, 2012, p. 29) and considered the fact that “strategic plans are developed by the AQIP pathway” a forte of strategy implementation (Milwaukee Area Technical College, 2012, p. 12). Western Technical College evaluators emphasized, "the organization identified the need for better information and is in the beginning stages of evaluating the requirements for improvement through an AQIP project" (Western Technical College, 2011, p. 19) was a strength area. These associations supported the conclusion that the Academic Quality Improvement Program was used actively across the three entities examined by this research.

Similar conclusions were drawn relative to the Plan Do Check Act, Quality Review Process, Higher Learning Commission, budgeting, and other shared quality processes and systems. Processes and systems common to Chippewa Valley, Western, and Milwaukee Area Technical Colleges were used in various operations, including senior leadership; strategy development; measurement, analysis, and organizational performance; and work systems. These findings are shown in Appendix J.

For example, Western Technical College (2011) used the Plan Do Check Act method in its activities, "the organization's PDCA approach for improving work systems including action plans" (p. 25), while Milwaukee Area Technical College (2012) engaged it in curriculum revisions "the process of improving a program is an adaptation of the PDCA cycle referred to as the Plan Teach Assess, Analyze, and Adjust" (p. 16). The findings showed that the common quality processes and systems, including the Academic Quality Improvement Program and the Plan Do Check Act cycle, were engrained in the operations and outcomes of Chippewa Valley, Western, and Milwaukee Area Technical Colleges.

Benchmarking processes and systems. Identifying how benchmarking was used within the institutions was inspected using equivalent tables. The benchmarking group and its components, namely Wisconsin Technical College System comparisons, competitor benchmarking, National Community College Benchmarking Project rankings, Integrated Postsecondary Education Data System reports, and Strengths, Weaknesses, Opportunities, and Threats evaluations are shown in Appendix K. The study found that benchmarking was pertinent to voice of the customer operations, in measurement, analysis, and operational performance activities, student learning and process outcome initiatives, and in customer and workforce outcome actions.

Chippewa Valley Technical College (2012), for example, administered "three college wide surveys on a three-year rotating basis for an objective examination of the college's performance" (p. 5). Milwaukee Area Technical College (2012) used "comparative data sources most of which are within the educational sector" (p. iv). Western Technical College's (2011) application stated, "the college uses the Noel-Levitz Student Satisfaction Inventory to gauge student satisfaction in a variety of areas; the tool provides a mechanism for Western to compare itself to peer groups" (p. 14). These conclusions provided further detail on how Chippewa Valley, Western, and Milwaukee Area Technical Colleges used their common practices in their operations.

Feedback processes and systems. Feedback processes and systems, indexed with composing elements Personal Assessment of College Environment, Student Satisfaction Inventory, Community College Student Success Engagement surveys, and partnership listening processes were components combined only in the measurement, analysis, and organizational performance category. Yet, varied combinations of listening tools were used in a number of operational areas, including senior leadership, governance and societal responsibility, and others, suggesting the prevalence of these mechanics in the colleges' routines. These findings are outlined in Appendix L.

Societal responsibility processes and systems. Societal responsibility processes and systems such as campus safety, emergency preparedness, financial accountability, diversity, and equity were accounted holistically rather than in an itemized fashion, rendering a second analysis iteration unnecessary. Examples of how societal responsibility processes and systems were embedded in operations were "Western's Senior Leadership Team promotes legal and ethical behavior through transparency in decision-making, through established and published policies and procedures that apply to leadership, students, and board members, and through a value system that emphasizes integrity, accountability, and respect" (Western Technical College, 2011, p. 2-3), and "Chippewa Valley is cognizant of conserving resources and maximizing efficiencies and effectiveness" (Chippewa Valley Technical College, 2012, p. 5).

Strategic planning processes and systems. Indexing strategic planning with its mission and vision, core values, and core competencies components demonstrated that strategic processes and system were also embedded in Chippewa Valley, Western, and Milwaukee Area Technical College operations. They were used in senior leadership, strategy development and implementation, workforce environment and systems, and leadership and governance outcomes activities. This conclusion is shown in Appendix M. Their association with several outcome groups suggested a strong link to management, indicating their dynamic role in forecasting and execution activities, and active contribution to results.

Effectiveness of processes, systems, values, and culture. The last interview question, effectiveness of processes, systems, values, and culture for meeting performance-based funding targets, supplied additional information for answering the second research query. The conversations inquired whether participants felt that the features they called out in their first two responses were effective performance-based funding measures.

Findings suggested that, in the respondents' opinion, the characteristics identified were active, but of questionable effectiveness for outcome goal attainment. Several interviewees specified that it was too early to conclude whether processes, systems, values, and culture were effective from a performance-based funding standpoint and that the new criteria did not have a major effect on how their colleges operated. Participants felt that performance funding, a relatively recent and externally enforced state initiative, did not alter the mission, goals, or operations of their institutions, being a peripheral, rather than ingrained measures.

A Chippewa Valley Technical College employee indicated, "I don't believe that performance based funding changed our values" (A. S., personal communication, 2016) and that "I don't think that performance funding improved our overall performance; it had a bigger impact on how we measure things" (A. S., personal communication, 2016). Milwaukee Area Technical College-related feedback was similar, "as an AQIP college, performance-based funding did not overwhelm us because we already had a lot of these processes" (B. S., personal communication, 2016), clearly indicating the lack of internal buy-in, "performance funding criteria came externally; it's from the outside, and they don't measure things in the way we do" (B. S., personal communication, 2016). Western Technical College responses supported the deduction that the colleges included in the study did not feel they needed to change in response to the performance funding measures. They indicated, "if we can be a high performing college or a high performing organization, it will certainly impact the funding we receive as part of that; performance funding is all about that, high performing organizations" (C. F., personal communication, 2016), and that "organizational practices, too, are really important to how we work as an organization; I feel like if we really do all those things well, and keep our focus, we will score high in performance based funding and we'll do well" (C. S., personal communication, 2016).

The outcomes implied that despite the changes in state funding, the traditional processes, systems, values, and culture of Chippewa Valley, Western, and Milwaukee Area Technical Colleges remained in place with minor modifications relative to measurement. This meant that the three colleges did not use their processes, systems, values, and culture to meet performance-based funding criteria, answering the second research question posed by this study.

In the opinion of a Chippewa Valley Technical College interviewee "the fact that the state chose to pay us some state aid based on this outcome-funding model doesn't really change anything" and that "we always cared about the students, about the employers, about our district; outcomes funding really has no bearing on that" (A. F., personal communication, 2016). A participant affiliated with Western Technical Colleges stated, "as an organization, we firmly believe that if we're really focused on what our strategic goals are for the organization, the quality kinds of things, the performance pieces will follow suit" (C. S., personal communication, 2016). The perception of a Milwaukee Area Technical College respondent was no different, "we had all these processes in place before the state came up with performance-based funding criteria" (B. S., personal communication, 2016) and "I would say that the schools that are doing well in performance-based funding are the schools that were already improvement-based schools" (B. S., personal communication, 2016).

The discoveries of this research suggested that the goal of outcome-based funding, stated as "promoting greater effectiveness and efficiency for higher education institutions, particularly when state resources are strained" (Dougherty, Natow, Bork, Jones, & Vega, 2013) and improvement of state objectives through "clarification of what the state expects from its public postsecondary institutions (Blanco, 2012), was not achieved. Chippewa Valley, Western, and Milwaukee Area Technical Colleges institutions espoused their established processes, systems, values, and culture despite the new funding mandate tied to attainment of specific criteria (Miao, 2012).

Participants' opinion on whether their colleges' approach was effective for attaining state funding was that it was "a tough question to answer right now because we're in such infancy stage of performance-based funding" (C. F., personal communication, 2016), and that "it is too early to draw many conclusions" (A. F., personal communication, 2016). Overall, they perceived their organizations as high performing, student-focused entities that did not need to change.

A response associated with the Milwaukee Area Technical College indicated, "if we help our students become successful, and we use these characteristics to help our student become successful, naturally the performance-based metrics will improve" (B. F., personal communication, 2016). Similarly, a Western Technical College respondent suggested, "we know that we're focused on our strategic goals and increasing academic success of students; we know we can meet our results of course completion, which then also allows us to perform better on the key performance indicators we get from the state" (C. S., personal communication, 2016). The Chippewa Valley Technical College interviewee's perception followed suit, "our values drive everything that we do, and the existence of performance funding doesn't change our values; our mission is still the same, and the way we carry it out is still the same" (A. F., personal communication, 2016).

Summary

Two consecutive rounds of data analysis lead to the findings of this study. Round one involved coding the sources and analyzing the texts to identify relevant themes and patterns across the documents. The second round of analysis focused on finding answers to the two specific study questions.

The upcoming chapter presents researcher conclusions and recommendations based on these findings.

Chapter V: Summary, Conclusions and Recommendation

This chapter presents the summary of findings, conclusions, and recommendations of the qualitative research on processes, systems, values, and culture shared and used by Chippewa Valley, Western, and Milwaukee Area Technical Colleges for achieving performance-based funding targets. The literature review and research analysis-based suggestions enhance the higher education accountability knowledge base.

This chapter summarizes the outcomes of this case-study designed to answer whether Chippewa Valley, Western, and Milwaukee Area Technical Colleges shared organizational processes, systems, values, and culture, and whether they used their common features to attain performance-based funds. The study arrived at its conclusions using the Wisconsin Forward Award applications and evaluator feedback reports of Chippewa Valley, Western, and Milwaukee Area Technical College and new data collected through semi-structured phone interviews. Two rounds of data analysis with the N'Vivo software rendered valuable insight on the colleges' shared practices and their use for performance-funds attainment.

Summary

A summary of the findings relative to the research questions posed by this case-study research investigating Chippewa Valley, Western, and Milwaukee Area Technical Colleges follows.

Findings summary for the first research question. The findings concluded that Chippewa Valley, Western, and Milwaukee Area Technical Colleges shared five main process and system categories and practices, namely quality, benchmarking, feedback, strategic planning, and societal responsibility. Itemized quality processes were the Academic Quality Improvement Program, the Higher Learning Commission accreditation activities, the Quality Review Process, the Plan Do Check Act method, and the budgeting processes. Benchmarking tools included the Personal Assessment of College Environment, the Community College Student Success Engagement inventory, the National Community College Benchmarking Project, and Wisconsin Technical College System-specific peer comparisons. Common feedback processes were advisory committees, student surveys such as the Student Satisfaction Inventory, leadership listening sessions, public town hall meetings, and others. Strategic planning involved processes related to development and execution of college mission through annual action plans. Finally, societal responsibility involved campus safety, emergency preparedness, diversity, equity, sustainability, and financial-accountability.

Shared amongst Chippewa Valley, Western, and Milwaukee Area Technical Colleges were also the student focused values and culture, and related indicators. Examples included Personal Assessment of the College Environment surveys, Student Satisfaction Inventories, Community College Student Success Engagement records, Wisconsin Technical College System student satisfaction measures, and Integrated Postsecondary Education Data System reports.

The conclusions drawn based on the Wisconsin Forward Award documents were supported by the findings of the interview analysis. Namely, several participants underscored the importance of the processes and systems itemized in running college operations and shared their perception that student focused mission, values, and culture were essential drivers of Chippewa Valley, Western, and Milwaukee Area Technical Colleges.

Findings summary for the second research question. The findings revealed that the common operational characteristics identified in the first research question were still current, dynamic organizational features in Chippewa Valley, Western, and Milwaukee Area Technical Colleges. The analysis of the Wisconsin Forward Award documents concluded that the processes, systems, values, and culture were deeply engrained across college operations, and effective contributors of institutional performance results.

Interviewees suggested that their institutions remained true to their established processes and systems, and entrenched values and culture despite the new performance-based funding context. In the perception of the respondents, the organizational identity and vision of their institutions did not change upon implementation of the state outcome measures. Rather, the colleges maintained their goals and practices, considering performance-based funding priorities state-imposed external standards of limited relevance. The study concluded that based on the cases of Chippewa Valley, Western, and Milwaukee Area Technical Colleges, the performance-based funding initiative was not as effective as anticipated by researchers and policymakers, and did not lead to better alignment of higher educational institutional missions with state priorities.

Conclusions

The conclusions reached regarding whether Chippewa Valley, Western, and Milwaukee Area Technical Colleges featured shared processes, systems, values, and culture and whether they used their organizational characteristics for attaining performance-based fund appropriations are presented below.

Conclusions relative to the first research question. The study's first research questions was posed as:

1) What common organizational processes, systems, values, and culture do the Wisconsin Forward Award recognized technical college display? Namely, do these colleges feature key characteristics that could benefit their peers if implemented in their organizational strategy and operations?

The conclusion drawn relative to the first question was that Wisconsin Forward Award recognized Chippewa Valley, Western, and Milwaukee Area Technical Colleges shared common organizational processes, systems, values, and culture. The five shared process and system groups were quality, benchmarking, feedback, strategic planning, and societal responsibility. Each group comprised specific processes and systems as indicated below.

Chippewa Valley, Western, and Milwaukee Area Technical Colleges used common quality methods within senior leadership; governance and societal responsibility, voice of customer; measurement, analysis, and improvement of organizational performance; as well as in relation to creating and managing the workforce; and work systems and processes. They also shared student learning and process outcomes, customer and workforce outcomes, and leadership and governance results.

The Academic Quality Improvement Program was called out in the senior leadership improvement; strategy implementation strengths; management of information, knowledge, and information technology strengths; workforce engagement strengths; workforce environment strengths; and leadership and governance outcomes strengths areas indicating its contribution to strategic planning, customer, workforce, and work practices related quality management.

For benchmarking the colleges relied on Wisconsin Technical College System peer comparisons, National Community College Benchmarking Project reports, Integrated Postsecondary Education Data System appraisals, and Strengths, Weaknesses, Opportunities, and Threats analyses. The findings of the study suggested that benchmarking was used in voice of the customer; measurement, analysis, and operational performance; student learning; and customer and workforce-focused operations.

Commonalities noted in the feedback or listening process and systems group were the Personal Assessment of the College Environment and the Student Success Inventory surveys, advisory committee and partnership collaborations, and the Community College Student Success Engagement instrument. The Personal Assessment of College Environment, Student Success Indicator, advisory committees, Community College Student Success Engagement tools and partnership feedback processes were shown to have been value added to measurement, analysis, and organizational performance and instrumental in senior leadership, governance, and societal responsibility activities.

Strategic planning functions representative for the three colleges included mission and vision development and utilization of core values and competencies. Strategic planning played a role in senior leadership, strategy development and implementation, work environment and systems, and leadership and governance outcomes operations, indicating that in Chippewa Valley, Western, and Milwaukee Area Technical Colleges strategic planning was integrated in college operations.

Societal responsibility processes and systems, although shared, were not specifically enumerated.

Chippewa Valley, Western, and Milwaukee Area Technical Colleges featured shared values and culture, including student focused mission and vision, values, and core competencies.

The conclusions outlined above were strengthened by the interviews confirming that Chippewa Valley, Western, and Milwaukee Area Technical College shared processes, systems, values, and culture. Participant responses suggested that, despite the changes imposed by the performance-based funding legislation, the shared processes, systems, values, and culture remained influential in the colleges. The Academic Quality Improvement Program, the Higher

Learning Commission accreditation processes, the Quality Review Process, and budgeting endured as some of the most referenced processes and systems, aligning with the Wisconsin Forward Award documents-based findings. Similarly, feedback and benchmarking processes and systems, as well as the mission, values, and culture were, too, classified by several interview participants as significant to the operations of the colleges analyzed.

Conclusions relative to the second research question. The second research query sought answer to the following question:

2) How do the Wisconsin Forward Award recognized technical colleges use their processes, systems, values, and culture to meet performance-based funding targets? Specifically, do their common organizational characteristics translate into effective practices and strategies for attaining performance criteria goals?

The conclusion relative to the second research question was that in the perception of the interviewees, their organizations' processes, systems, values, and culture of Chippewa Valley, Western, and Milwaukee Area Technical College were not aligned with meeting performance-based funding targets. Findings relative to how the analyzed colleges used their common organizational features to meet performance-based funding targets indicated that the colleges actively engaged their shared features in various strategic and operational activities, but were not purposeful in aligning them with the performance-based funding expectations. The Wisconsin-Forward Award recognized organizations analyzed by this case study did not embrace the state performance criteria, diminishing the effectiveness of the initiative in associating state and institutional priorities.

This conclusion confirmed that the Wisconsin Forward Award application-based findings continued to be relevant, despite the time passed since the recognition. Chippewa Valley, Western, and Milwaukee Area Technical College remained true to their historic mission and established procedures, without adjusting their institutional goals to the state mandated performance-based funding priorities. The targeted outcomes of the colleges in this case study were not intentionally aimed at achieving the performance-based criteria outlined by policymakers. This indicated that, in the case of Chippewa Valley, Western, and Milwaukee Area Technical Colleges, the outcome-based funding initiative had limited success in furthering state priorities.

Performance-based funding, as a public postsecondary educational funding framework intended to improve the accountability of higher education by better aligning institutional goals with state concerns. Wisconsin legislature approved this financing model for Wisconsin Technical College System institutions in 2013. The mission of the Wisconsin Technical College System, a statewide system of public two-year technical colleges, is support of economic progress and development of a skilled workforce able to satisfy the needs of Wisconsin employers. Outcome-based funding, intending improved operational effectiveness, focus on student success, issuance of industry-recognized credentials in high-demand fields, and service to specific learner populations through adult remediation, training, etc. appeared a fitting solution for technical colleges charged with advancing the economic progress of their regions.

The findings of the literature review supported the results of this case study, indicating that states' performance-based funding initiatives had intermittent success, design and implementation playing equally important role in the outcome. It was underscored that higher education faculty and administration often resented the model as an externally coerced measure reducing institutional autonomy. The lack of buy-in was typical for colleges and universities alike, with push back being stronger in the case of high performing, traditionally successful institutions. The Wisconsin Forward Award recognized the high operational quality of Chippewa Valley, Western, and Milwaukee Area Technical Colleges, making their reluctance to change their established practices plausible in light of the literature inferences.

This study involving Chippewa Valley, Western, and Milwaukee Area Technical Colleges found that the effectiveness of the organizational characteristics shared by the three colleges for performance-based funding goal attainment was questionable. Respondents indicated that since the initiative was still new, it was too early to draw conclusions relative to the value of operational practices for meeting state-imposed targets. The findings of the literature review implying that outcome-based funding measures were not fully embraced by higher education institutions supported the findings of this study.

Culture, a dynamic and fluid concept resembling a "mosaic of a multitude of sub-cultures" (Katiliute & Neverauskas, 2009, p. 1072), "can be considered the glue that holds an organization together" (Baron, 1994, p. 66). Authors implied that in participative, heterogeneous college and university environments that emerge from complex interactions, interpretations, perception changes, and actions were best accomplished with indirect interventions (Lueger & Vettori, 2008). This supported the conclusions that alignment of institutional goals with performance-based criteria could be enhanced by grassroots implementation practices.

Burke and Lessard (2000) found that higher educational officials reported minimal impact of performance funding on their institutions. This expert opinion supported the findings of the present study involving Chippewa Valley, Western, and Milwaukee Area Technical Colleges, submitting that these colleges already considered themselves high performing organizations that did not need to change for competing within the performance-based funding context.

Recommendations

The researcher recommendations presented are product of an extensive review of literature on higher education accountability, with special focus on accreditation, quality systems, and performance-based funding measures, and the findings of the qualitative case study involving Chippewa Valley, Western, and Milwaukee Area Technical Colleges. This section discusses the investigator's suggestions relative to using the findings and repeating the study.

Recommendations aligned with the first research question. Recommendations relative to the first research questions below follow.

1) What common organizational processes, systems, values, and culture do the Wisconsin Forward Award recognized technical college display? Namely, do these colleges feature key characteristics that could benefit their peers if implemented in their organizational strategy and operations?

A key finding of this case study research is that quality, benchmarking, feedback, strategic planning, and societal responsibility processes and systems are common to Chippewa Valley, Western, and Milwaukee Area Technical Colleges. Student-focused mission, vision, values, and competencies are also typical of the three Wisconsin Forward Award recognized colleges investigated. While existence of these common organizational features does not translate into high performance from a performance-based funding standpoint, it resulted in statewide acknowledgment for effective continuous improvement practices. The findings indicated that deeply embedded processes and systems, and strong organizational values and culture help organizations become high performing role models.

The researcher recommends, based on the conclusions of this research, that colleague technical and community college leaders consider their organizations' processes, systems, values, and culture in light of those featured by the Wisconsin Forward Award recognized Chippewa Valley, Western, and Milwaukee Area Technical Colleges, assessing and redressing their operations and organizational identities as necessary.

The shared operational framework, namely the quality, benchmarking, feedback, social responsibility, and strategic planning processes and system, as well as the well-established values and culture suggest that Chippewa Valley, Western, and Milwaukee Area Technical College have a strong foundation to build upon. Revising existing processes and value-systems, rather than trying to implement radically new tactics could help instill performance-based funding targets through a bottom-up management approach.

Recommendations aligned with the second research question. Recommendations aligned with the second research query follow below. The second question was posed as:

2) How do the Wisconsin Forward Award recognized technical colleges use their processes, systems, values, and culture to meet performance-based funding targets? Specifically, do their common organizational characteristics translate into effective practices and strategies for attaining performance criteria goals?

The outcomes of this study confirm that the Wisconsin outcome-based funding initiative has limited success. The purpose of the new financing model was increasing organizational effectiveness, instilling continuous improvement, and aligning the goals of Wisconsin Technical College System institutions with state priorities. The findings of this research indicate, without generalizing findings to all technical colleges operating within the State of Wisconsin, that Chippewa Valley, Western, and Milwaukee Area Technical Colleges failed to align their goals to performance funding targets. For a performance-focused quality culture to be sustainable, "its basic principles have to be largely shared or at least accepted" (Vettori, Lueger, & Knassmueller, 2007, p. 22). Yet, defining quality in higher education is very difficult, as stakeholders judge quality according to competing views (Green, 1994).

The researcher recommends, based on the discoveries of this investigation, that policymakers invest in capacity building among the Wisconsin Technical College System institutions subjected to the new performance-based funding expectations in order to improve the success of the initiative. Better understanding the reasons and proven methods of changing focus will help faculty and leaders embrace the new measures rather than ignoring their existence. Barnett's (1992) distinction between management of quality and managing for quality supports the researcher's recommendation.

Recommendations for further research. In addition to the recommendations aligned with the two questions and findings of the study, the researcher suggests a follow-up research topic.

A follow-up study examining Wisconsin Technical College System institutions on the Academic Quality Improvement Program accreditation pathway, rather than those recognized with the Wisconsin Forward Award would be a valuable addition to the career and technical education knowledge base. The Academic Quality Improvement Program emerged in the findings of this study as a key quality system shared and used by Chippewa Valley, Western, and Milwaukee Area Technical Colleges. The new study's source documents could be Academic Quality Improvement Program systems portfolios and/or action projects instead of Wisconsin Forward Award documents, rendering insight on the specific continuous improvement initiatives colleges focus on. Selection of the colleges to include in the research sample, dependent on specific goals and circumstances, would be at the discretion of the researcher. One option would be to use a small purposefully designated sample similar to the present study, making the analysis less time consuming and easier to accomplish. An alternative could be extending the investigation to all Wisconsin Technical College Institutions following the Academic Quality Improvement Program plan. This larger scale option would render more generalizable results, but would require considerable time and resource commitment. The researcher recommends consideration of both alternatives, opting for the route most closely aligned with the interest and situation of the investigator.

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Appendix A: Coding Groups with Aggregated Number of Sources and References

Coding Groups	Number of Sources	Number of References
Wisconsin Forward Award Documents	6	3224
Organizational Profile	6	326
• *Organizational Description / Environment*	*3*	*72*
• *Organizational Situation*	*3*	*83*
• *Feedback Report*	*3*	*171*
Leadership	6	390
• *Governance & Societal Responsibilities*	*3*	*87*
• *Senior Leadership*	*3*	*186*
• *Feedback Report*	*3*	*115*
Strategic Planning	6	339
• *Strategic Development*	*3*	*118*
• *Strategic Implementation*	*3*	*80*
• *Feedback Report*	*3*	*141*
Customer Focus	6	423
• *Customer Engagement*	*3*	*115*
• *Voice of the Customer*	*3*	*142*
• *Feedback Report*	*3*	*166*
Measurement & Analysis & Knowledge Management	6	357
• *Management of Information & Knowledge & Info Tech*	*3*	*20*
• *Measurement & Analysis & Improvement of Organizational Performance*	*3*	*226*
• *Feedback Report*	*3*	*111*
Workforce Focus	6	298
• *Workforce Engagement*	*3*	*99*
• *Workforce Environment*	*3*	*85*
• *Feedback Report*	*3*	*114*
Operations Focus	6	299
• *Work Processes*	*3*	*42*
• *Work Systems*	*3*	*129*
• *Feedback Report*	*3*	*128*
Results	6	792
• *Student Learning & Process Outcomes*	*3*	*223*
• *Customer Focused Outcomes*	*3*	*123*
• *Workforce Focused Outcomes*	*3*	*79*
• *Leadership & Governance Outcomes*	*3*	*47*
• *Budgetary & Financial & Market Outcomes*	*3*	*34*
• *Feedback Report*	*3*	*286*
Interview Transcripts	6	253
Processes & Systems	6	84
Values and Culture	6	82
Usage for PBF	6	71
Effectiveness for PBF	6	16

Appendix B: Thematic Node Ranking Based on Aggregated Number of References

Ranking	Thematic Nodes	Number of References
1.	Processes & Systems	681
2.	Measurement	427
3.	Strategic Planning	255
4.	Student Focus	190
5.	Benchmarking	159
6.	Feedback	140
7.	WTCS	121
8.	Mission & Vision	104
9.	Societal Responsibility	95
10.	Core Values	93
11.	PACE	84
12.	Budgeting	73
13.	AQIP	56
14.	PDCA	55
15.	SSI	51
16.	Competitors	51
17.	Partnerships	49
18.	QRP	42
19.	Advisory Committees	39
20.	HLC	30
21.	CCSSE	30
22.	IPEDS	29
23.	Core Competencies	29
24.	KPI	24
25.	NCCBP	16

Appendix C: Process and Systems Coding Node Components with Number of Sources and References

Coding Groups	Quality Process & Systems #S	#R	Benchmarking Processes & Systems #S	#R	Feedback (Listening) Processes & Systems #S	#R	Strategic Planning Processes & Systems #S	#R	Societal Responsibility Processes & Systems #S	#R
Organizational Description	3	8	-	-	2	2	3	3	2	2
Organizational Situation	3	7	3	7	-	-	3	7	1	1
Senior Leadership	3	49	1	1	3	8	3	19	3	5
Governance & Societal Responsibility	3	23	1	1	1	1	2	2	2	14
Strategy Development	3	28	2	5	3	5	3	32	-	-
Strategy Implementation	3	22	1	2	-	-	3	18	-	-
Voice of Customer	3	23	2	3	3	28	1	3	-	-
Customer Engagement	3	40	3	9	3	9	2	6	2	4
Measurement & Analysis & Organizational Performance	3	45	3	16	3	11	3	23	2	2
Management of Information & Knowledge & Information Technology	3	16	-	-	-	-	1	2	-	-
Workforce Environ.	3	39	-	-	1	1	3	12	1	2
Workforce Engagement	3	36	1	2	2	2	3	7	-	-
Work Systems	3	40	2	4	3	8	3	10	-	-
Work Processes	3	13	2	2	2	2	3	5	-	-
Student Learning & Process Outcomes	3	27	3	28	-	-	3	16	2	4
Customer Focused Outcomes	3	13	3	20	3	11	2	3	-	-
Workforce Focused Outcomes	3	16	2	7	1	1	3	8	-	-
Leadership & Governance Outcomes	3	10	-	-	-	-	1	3	3	6
Budgetary & Financial & Market Outcomes	3	7	3	4	-	-	1	1	1	4

Appendix D: Quality Processes and Systems Coding Node Cross Tabulated with Component Number of Sources and References

Coding Groups	AQIP		PDCA		QRP		HLC		Budgeting	
	#S	#R	#S	#R	#S	#R	#S	#R	#S	#R
Organizational Description	3	3	1	2	-	-	3	3	2	2
Organizational Situation	1	1		3	3	5	1	1	-	-
Senior Leadership	2	5	2	5	1	1	2	3	1	3
Governance & Societal Responsibility	2	3	-	-	-	-	3	4	1	1
Strategy Development	1	1	2	2	1	1	3	5	3	6
Strategy Implementation	1	1	-	-	2	3	1	1	3	7
Voice of Customer	1	1	2	6	3	4	-	-	-	-
Customer Engagement	-	-	2	3	2	6	3	3	-	-
Measurement & Analysis & Organizational Performance	2	4	1	3	1	1	3	4	2	4
Workforce Environment	1	1	1	2	-	-	-	-	-	-
Workforce Engagement	1	1	-	-	-	-	1	1	-	-
Work Systems	2	2	2	4	1	1	2	2	3	12
Work Processes	2	2	2	2	2	2	-	-	-	-
Student Learning & Process Outcomes	1	1	2	2	3	5	-	-	2	7
Customer Focused Outcomes	1	1	1	2	-	-	-	-	-	-
Workforce Focused Outcomes	2	2	-	-	-	-	-	-	-	-
Leadership & Governance Outcomes	1	1	-	-	-	-	2	2	1	2

Appendix E: Benchmarking Processes and Systems Coding Node Cross Tabulated with Component Number of Sources and References

Coding Groups	WTCS		Competitors		NCCBP		IPEDS		SWOT	
	#S	#R	#S	#R	#S	#R	#S	#R	#S	#R
Organizational Situation	2	4	3	8	1	2	3	5	1	1
Strategy Development	2	2	-	-	-	-	-	-	2	3
Strategy Implementation	2	4	2	2	-	-	-	-	-	-
Voice of Customer	1	3	2	5	-	-	1	1	1	1
Customer Engagement	2	3	-	-	-	-	-	-	1	1
Measurement & Analysis & Organizational Performance	3	9	1	1	2	4	3	6	-	-
Work Systems	3	9	-	-	-	-	-	-	1	1
Student Learning & Process Outcomes	2	22	-	-	1	2	2	11	1	1
Customer Focused Outcomes	2	6	-	-	1	3	-	-	-	-
Workforce Focused Outcomes	1	1	-	-	1	4	1	1	-	-

Appendix F: Feedback Processes and Systems Coding Node Cross Tabulated with Component Number of Sources and References

Coding Groups	PACE		SSI		Advisory Committees		CCSSE		Partnerships	
	#S	#R	#S	#R	#S	#R	#S	#R	#S	#R
Organizational Description	1	1	-	-	2	2	-	-	3	7
Organizational Situation	3	5	3	4	-	-	2	3	-	-
Senior Leadership	3	6	1	1	2	4	-	-	3	6
Governance & Societal Responsibility	2	3	1	1	2	5	1	1	3	6
Strategy Development	2	2	-	-	2	2	-	-	2	2
Strategy Implementation	-	-	1	1	1	1	1	1	-	-
Voice of Customer	-	-	3	7	3	4	3	5	-	-
Customer Engagement	-	-	1	1	3	3	-	-	3	4
Measurement & Analysis & Organizational Performance	3	4	3	8	1	1	2	7	1	1
Workforce Environment	1	1	1	2	1	1	-	-	-	-
Workforce Engagement	3	12	1	1	-	-	-	-	-	-
Work Systems	1	1	1	1	3	3	-	-	-	-
Student Learning & Process Outcomes	-	-	2	3	-	-	1	1	-	-
Customer Focused Outcomes	-	-	3	10	1	1	3	9	-	-
Leadership & Governance Outcomes	3	4	-	-	1	1	-	-	-	-

Appendix G: Strategic Planning Processes and Systems Coding Node Cross Tabulated with Component Number of Sources and References

Coding Groups	Mission & Vision		Core Values		Core Competencies	
	#S	#R	#S	#R	#S	#R
Organizational Description	3	8	3	6	2	2
Senior Leadership	3	16	3	19	1	1
Governance & Societal Responsibility	3	4	2	3	-	-
Strategy Development	3	8	2	4	1	2
Strategy Implementation	2	8	1	1	1	1
Voice of Customer	1	1	2	2	-	-
Workforce Environment	2	4	2	6	1	1
Workforce Engagement	2	4	2	5	-	-
Work Systems	3	8	2	3	2	6
Work Processes	3	3	2	2	-	-
Student Learning & Process Outcomes	1	1	-	-	1	1
Customer Focused Outcomes	1	1	-	-	1	1
Leadership & Governance Outcomes	2	4	1	1	1	1

Appendix H: Student Focus Processes and Systems Coding Node Components Cross Tabulated for Coding Groups

Coding Groups	Mission & Vision		Core Values		Core Competencies	
	Yes	No	Yes	No	Yes	No
Organizational Description	X		X		X	
Senior Leadership	X		X		X	
Governance & Societal Responsibility	X		X			-
Voice of Customer	X		X			-
Measurement & Analysis & Organizational Performance	X			-		-
Workforce Environment	X		X		X	
Workforce Engagement	X		X			-
Work Systems	X		X		X	
Work Processes	X		X			-
Student Learning & Process Outcomes	X			-	X	
Customer Focused Outcomes	X			-	X	

Appendix I: Student Focus Measurement Processes and Systems Coding Node Components Cross Tabulated for Coding Groups

Coding Groups	PACE		SSI		CCSSE		IPEDS		NCCBP		WTCS		Competitor		Budgeting	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Organizational Situation	X		X		X		X		X		X		X			-
Senior Leadership	X		X			-		X		-	X			-	X	
Governance & Societal Responsibility	X		X		X			-		-	X			-	X	
Voice of Customer		-	X		X		X			-	X		X			-
Measurement & Analysis & Organizational Performance	X		X		X		X		X		X		X		X	
Work Systems	X		X			-		-		-	X			-	X	
Student Learning & Process Outcomes		-	X		X		X		X		X			-	X	
Customer Focused Outcomes		-	X		X			-	X		X			-		-
Workforce Focused Outcomes	X			-		-	X		X		X			-		-

Appendix J: Quality Processes and Systems Coding Node Components Cross Tabulated for Coding Groups

Coding Groups	AQIP		PDCA		QRP		HLC		Budgeting	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Organizational Description	X		X			-	X		X	
Organizational Situation	X		X		X			-	X	
Senior Leadership	X		X		X		X		X	
Strategy Development	X		X		X		X		X	
Strategy Implementation	X			-	X		X		X	
Measurement & Analysis & Organizational Performance	X		X		X		X		X	
Work Systems	X		X		X		X		X	
Student Learning & Process Outcomes	X		X		X		X			-

Appendix K: Benchmarking Process and Systems Coding Node Components Cross Tabulated for Coding Groups

Coding Groups	WTCS		Competitors		NCCBP		IPEDS		SWOT	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Organizational Situation	X		X		X		X		X	
Voice of Customer	X		X		X		X		X	
Measurement & Analysis & Organizational Performance	X		X		X		X			-
Student Learning & Process Outcomes	X			-	X		X		X	

Appendix L: Feedback Processes and Systems Coding Node Components Cross Tabulated for Coding Groups

Coding Groups	PACE		SSI		Advisory Committees		CCSSE		Partnerships	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Senior Leadership	X		X		X			-	X	
Governance & Societal Responsibility	X		X		X		X		X	
Strategy Development	X			-	X			-	X	
Measurement & Analysis & Organizational Performance	X		X		X		X		X	
Workforce Environment	X		X		X			-		-
Work Systems	X		X		X			-		-
Customer Focused Outcomes		-	X		X		X			-

Appendix M: Strategic Planning Processes and Systems Coding Node Components Cross Tabulated for Coding Groups

Coding Groups	Mission & Vision		Core Values		Core Competencies	
	Yes	No	Yes	No	Yes	No
Organizational Description	X		X		X	
Senior Leadership	X		X		X	
Governance & Societal Responsibility	X		X			-
Strategy Development	X		X		X	
Strategy Implementation	X		X		X	
Workforce Environment	X		X		X	
Workforce Engagement	X		X			-
Work Systems	X		X		X	
Leadership & Governance Outcomes	X		X		X	

Appendix N: Interview Coding Groups and Thematic Nodes with Number of Sources and References

Coding Group	Number of Sources	Number of References
Processes and Systems	6	84
AQIP/HLC	5	20
QRP	3	9
Budgeting	3	9
Feedback	5	9
PDCA	2	6
WFA	2	9
Q2 Values and Culture	6	82
Mission and Vision	3	7
Core Values	5	13
Benchmarking	3	3
Partnerships	2	7
QRP	2	2
Student Focus	3	12
Q3 Usage for Performance Funding	6	71
Competitors	3	14
Measurement	4	12
PBF Criteria	6	14
PBF Targets	3	7
Effectiveness for Performance Funding	6	16

Appendix O: University of Wisconsin-Stout Institutional Research Board Approval

UNIVERSITY OF WISCONSIN
STOUT
Wisconsin's Polytechnic University

Research Services
152 Vocational Rehabilitation

University of Wisconsin-Stout
P.O.Box 790
Menomonie, WI 54751-0790

Phone: 715.232.1126
Fax: 715.232.1749

February 2, 2016

Kinga N. Jacobson
School of Education
University of Wisconsin-Stout

RE: **A Qualitative Study on the Influence of Quality Systems in Meeting Performance Funding Criteria in Wisconsin Technical College System Institutions**

Dear Kinga,

In accordance with Federal Regulations, your project, "*A Qualitative Study on the Influence of Quality Systems in Meeting Performance Funding Criteria in Wisconsin Technical College System Institutions"* was reviewed on **February 2, 2016,** by a member of the Institutional Review Board and was approved under Expedited Review through **February 1, 2017.** If a renewal is needed, it is to be submitted at least 10 working days prior to the approvals end date.

If you are conducting an **online** survey/interview, please copy and paste the following message to the top of the form: **"This research has been approved by the UW-Stout IRB as required by the Code of Federal regulations Title 45 Part 46."**

Responsibilities for Principal Investigators of IRB-approved research:

1. No subjects may be involved in any study procedure prior to the IRB approval date or after the expiration date. (Principal Investigators and Sponsors are responsible for initiating Continuing Review proceedings.)
2. All unanticipated or serious adverse events must be reported to the IRB.
3. All protocol modifications must be IRB approved prior to implementation, unless they are intended to reduce risk.
4. All protocol deviations must be reported to the IRB.
5. All recruitment materials and methods must be approved by the IRB prior to being used.
6. Federal regulations require IRB review of ongoing projects on an annual basis.

Thank you for your cooperation with the IRB and best wishes with your project.

Should you have any questions regarding this letter or need further assistance, please contact the IRB office at 715-232-1126 or email buchanane@uwstout.edu.

Sincerely,

[redacted]

Elizabeth Buchanan
Interim Director of Research Services and Human Protections Administrator,
UW-Stout Institutional Review Board for the Protection of Human Subjects in Research (IRB)

CC: Dr. Carol Mooney

***NOTE: This is the only notice you will receive – no paper copy will be sent.**

Appendix P: Milwaukee Area Technical College Institutional Research Board Approval

MILWAUKEE AREA Technical College

Institutional Review Board

Memorandum

To: Kinga Jacobson

From: Yan Wang, Ph.D., Chair
Institutional Review Board (IRB)
Milwaukee Area Technical College

Re: **IRB Approval Letter**

Title: *A Qualitative Study on the Influence of Quality Systems in Meeting Performance Funding Criteria in Wisconsin Technical College System Institutions*

Date: March 30, 2016

After review of your revised IRB request for your study on "*A Qualitative Study on the Influence of Quality Systems in Meeting Performance Funding Criteria in Wisconsin Technical College System Institutions*" the IRB at MATC approved your request effective for one year.

If you have any questions or if your plans for human subject involvement change substantially from those approved by the IRB, please contact the IRB chair at 414- 297-8509 or email to wangy@matc.edu.

Please note that it is the principal investigator's responsibility to promptly report to the IRB any changes in the research project, whether these changes occur prior to undertaking, or during the research. In addition, if harm or discomfort to anyone becomes apparent during the research, the principal investigator must contact the IRB chair. Upon completion of the study, please submit a Statement of Closure.

Additionally, if MATC students' records are needed for the study, it is the principal investigator's responsibility to submit a copy of your request to the Registrar, Sarah Adams, at 414-2976595 or adamss4@matc.edu, to assure compliance to FERPA, the student privacy act. Clearance from the IRB does not override the privacy protections of FERPA because FERPA does not have a research exception.

Lastly, please note that MATC IRB's role is to consider the appropriateness of the proposed research not the institutional feasibility or logistics of conducting the proposed research study.

Cc: IRB committee members

Appendix Q: Data Collection Questionnaire for UW-Stout and MATC Approved Research

Research Title

A Qualitative Study on the Influence of Quality Systems in Meeting Performance Funding Criteria in Wisconsin Technical College System Institutions

Investigator

Kinga N. Jacobson, 1-920-421-0042, jacobsonk1613@my.uwstout.edu

Sponsor

Dr. Carol Mooney, 1-715-878-4486, mooneyc@uwstout.edu

Research Description

The goal of this study is to determine the value of common organizational characteristics demonstrated by Wisconsin Forward Award recognized Wisconsin Technical College System institutions in context of performance funding. In other words, the study intends to determine whether recognized technical colleges display common processes, systems, values, or culture and whether these organizational features are utilized in meeting performance-based funding criteria.

Research Questions

The following questions will be used during the semi-structured interview you agreed to participate in. The questions are intended to inform you in advance of the questions asked; yet the answers will be collected verbally, by way of a 20-40 minute phone interview scheduled at a date and time convenient for you. Thank you for participating.

1) *What organizational processes and systems does your institution use?*

2) *What are the values and culture of your organization?*

3) *How are these characteristics used to meet performance-based funding targets?*

4) *Are these strategies and practices effective in securing performance-funds?*