

AN ABSTRACT OF THE THESIS OF

Jonathon V. McKee for the degree of Doctor of Education presented on April 27, 2001. Title: Factors and Issues Surrounding Development of One Community College Baccalaureate Degree Program.

Abstract approved: _____



Betty Duvall

The purpose of this study is to describe the factors and issues surrounding development of one community college baccalaureate degree program, the three-year Bachelor of Manufacturing Technology at Westark College in Arkansas. This study probes three primary movements at play in the Westark baccalaureate program, which was developed to respond to industry demands. First, and most obvious, this new program proposes that the community college expand its mission to include baccalaureate programs. Second, the Westark program is based on the demonstration of student mastered competencies. Finally, the Westark baccalaureate attempts to integrate the general education requirement into the competency-based curriculum. Individually, these threads are relatively untested. Combining these components into one degree program is a relatively new concept.

The intent of this inquiry was not an evaluation of the Westark Bachelor of Manufacturing Technology degree program. What the researcher hoped to

accomplish was to uncover the salient factors and issues related to the development of this new program. What was gained through this process is an understanding of how one community college baccalaureate was established, including identifying important themes. Several issues have been described from the interviews and on-going document search that should be useful for future studies of the community college baccalaureate. Furthermore, the study clearly implies that curricula supporting student master competencies is an entirely different direction of inquiry that is perhaps even more essential than the study of the community college baccalaureate.

Whether or not the Westark baccalaureate will be unique to Fort Smith, Arkansas remains to be seen. Other community colleges may attempt to adopt the Westark College model. Lining up the social, economic, political, and pedagogical forces to expand the community college degree offerings to include a baccalaureate that includes integrated student master competencies could be difficult. However, Westark College has provided a model for other community colleges that may currently, or in the future, be considering a bachelor degree program.

Factors and Issues Surrounding Development of One Community College
Baccalaureate Degree Program

by

Jonathon V. McKee

A THESIS

Submitted to

Oregon State University

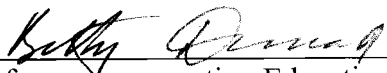
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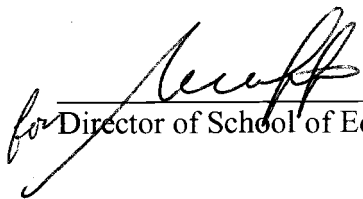
Completed April 27, 2001
Commencement June 2001

Doctor of Education thesis of Jonathon V. McKee presented on April 27, 2001

APPROVED:



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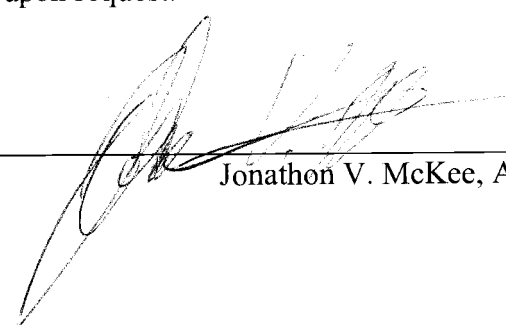


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Factors and Issues Surrounding Development of One Community College Baccalaureate Degree Program

CHAPTER ONE

INTRODUCTION AND REVIEW OF RELATED LITERATURE

The American Community College is, arguably, the greatest change in higher education since the creation of the modern university. Since the first community college was established 100 years ago, there have been significant stages of development where the fundamental nature of these institutions has shifted. The community college baccalaureate potentially represents the next major shift in purpose of the comprehensive community college in America [Landrth, 1971; Palinchak, 1973; Brockliss, 1992].

During the 20th century, community colleges have concentrated on vocational and transfer two-year associate degrees, as well as the community service function. Meanwhile, universities have been concerned primarily with baccalaureate, master's degrees and doctoral programs. Baccalaureate education has been the domain of the university and college, not of the community college [Landrth, 1971; Palinchak, 1973; Brockliss, 1992].

Joliet Junior College was founded in 1901 to provide place-bound students with access to the first two years of college. The Associate degree in arts and science was established to recognize the first two years of college. As the industrial revolution evolved in the late 19th century, the need emerged for a more highly trained workforce. Management positions within the factory, as well as in support

industries required specific training. In response, the junior college concept expanded to include vocational education, as well as the first two years of a baccalaureate. A new associate degree was established to recognize two years of college level vocational education. The Associate of Applied Science certified that the graduate had received training on essential workplace skills. This degree represented the junior college's significant departure from its university roots. In addition to providing geographic access to the first two years of university education, junior colleges (now more frequently called community colleges) began providing the two-year vocational degree [Haskins, 1957; Landrth, 1971; Palinchak, 1973; Schmitt, 1987; Brockliss, 1992].

The next step in the evolution of the community college is "community service." Community service was built upon the notion that local community colleges could meet identified community educational needs. During the past 50 years, these needs have included adult literacy programs, short-term workforce training, English as a second language, and training programs for unemployed and underemployed adults. These changes created further curricular distance between the community college and university. Furthermore, as a result of this broad range of programming options, the comprehensive community college was established as an open door to higher education for all citizens regardless of academic qualifications [Landrth, 1971; Palinchak, 1973; Brockliss, 1992].

The community college's long standing interest in responding to perceived community and industry needs for new degree programs, has led to serious consid-

eration for the community college baccalaureate [Burke & Garmon, 1995; Harriman & Thicksten, 1997; Walker, 1997; Campbell et al., 1998; Garmon, 1998; Healy, 1998; Walker, 1998a,b,c; Cook, 1999; Evelyn, 1999; Shoun, 1999; Wallace, 1999; Garmon, 2000a,b,c,d,e; Walker, 2000a,b,c; Wattenbarger & Romesburg, 2000].

Purpose of the Study

The purpose of this study is to describe the factors and issues surrounding development of one community college baccalaureate degree program, the three-year Bachelor of Manufacturing Technology at Westark College in Arkansas. This study probes three primary movements at play in the Westark baccalaureate program, which was developed to respond to Fort Smith, Arkansas manufacturing industry demands. First, and most obvious, this new program proposes that the community college expand its mission to include baccalaureate programs. Second, the Westark program is based on the demonstration of student mastered competencies. Finally, the Westark baccalaureate attempts to integrate the general education requirement into the competency-based curriculum. Individually, these threads are relatively innovative. Combining these components into one degree program is a relatively new concept.

Significance of the Study

In recent years, community colleges have explored new relationships with universities in the United States. Several community colleges currently collaborate

with four-year institutions to set up local university centers, branch campuses, inter-institutional consortia, two-plus-two partnerships, distance education programs and other services. These four-year degree programs are located on the campus of, or supported by, the community college partner. However, curricular control remains under the jurisdiction of the four-year institution granting the degree. The following definitions of these types of collaborative relationships illustrate the different models:

- **Distance Education:** Uses telecommunications delivery systems such as the Internet, the World Wide Web, interactive video, educational television, to provide the third and fourth years on community college campuses. The university system maintains curricular control.
- **Multi-Institutional Consortium:** Community colleges and universities work together to provide baccalaureate degree programs. The institutions work together to serve students and share resources, with the university maintaining independent curricular control over the third and fourth years.
- **Two-plus-two Partnership:** A simplified version of the multi-institutional consortium involving one university and one community college.
- **University Center:** A community college partners with four-year universities to offer baccalaureate programs on the community college campus. The university center is often staffed and governed by the university system, which makes the university center different than multi-institutional consortium

[Martin & Samels, 1990; Mortorana, 1994; Friss, 1996; Cook, 1999; Samels & Martin, 1999].

Unlike these collaborative relationships, the community college baccalaureate is controlled completely by the local community college. In this respect, the local community college district governs the community college baccalaureate [Evelyn, 1999]. A few community colleges have already established baccalaureate programs that are governed by the local district board of directors and in response to community needs [Garmon, 1998; Walker, 1998a,b,c].

Community College Baccalaureate Programs

Several community colleges currently offer baccalaureate programs in the United States. These community colleges are The Fashion Institute of Technology, in New York State; Utah Valley College in Utah; Dixie College in Utah; Great Basin College in Nevada; and Westark College in Arkansas. These schools are all public institutions. Moreover, the 1999 Florida legislature approved legislation allowing Florida's 27 community colleges to offer baccalaureate programs.

In 1989, five of the seven British Columbia community colleges were changed into university colleges. The university college is a close approximation to the comprehensive community college, with the exception that these institutions also offer baccalaureates. Similar programs exist in Alberta and Ontario [Callagher & Merner, 1983; Dennison, 1998; Petch, 1998; Allen, 1999; McDowell, 2000; Carr, 2001].

The Fashion Institute of Technology (F.I.T.), in New York, established the first community college baccalaureate programs in the United States in 1976. From 1976 to 1981, F.I.T. initiated seven upper-division programs: six programs resulting in the awarding of a bachelor of arts or bachelor of science, and one three-year certificate program in illustration. Fashion Institute of Technology's baccalaureate curriculum is built upon the backbone of its A.A.S. degree. Fashion Institute of Technology's primary focus remains its 16 associate degree programs that provide education for those who are wishing to be designers, manage production, and market fashion products for related industries and professions. Furthermore, F.I.T. provides a wide-range of community service programs to its district. The addition of F.I.T.'s bachelor degree programs is an attempt to provide students in the fashion industry with the basic work skills they need that do not fit into a two-year program [Call, 1997].

In 1992, Utah Valley Community College was granted legislative approval to begin offering baccalaureates. However, over the next five years the mission of the college changed from that of a comprehensive community college to a four-year college. In 1994, the name of the college was changed from Utah Valley Community College to Utah Valley College, to reflect this new mission. A 1999 strategic plan made it clear that the baccalaureate programs at Utah Valley would expand in subsequent years to include up to 26 four-year degree programs, and become the primary focus of the school. Utah Valley College's emphasis has shifted from community college to a wide array of baccalaureates [Nelsen, 1992; Wright, 1992;

Utah Valley College, 1995; Chance, 1998; Egan, 1998a,b; Foxley, 1998; Sullivan, 1998a,b; Van Splawn, 1998; Egan, 1999a,b; Chronicle of Higher Education, 1999; Groutage, 1999; Sullivan, 1999].

Utah's Dixie College has initiated the development of a limited number of bachelor degree programs. The 1999 Utah legislature passed legislation supporting Dixie's request to create a bachelor's degree in education. Dixie wants to follow in the footsteps of Utah Valley and change from a comprehensive community college to a focus on university level degree programs [Egan, 1998a,b; Sullivan, 1998a,b; Van Splawn, 1998; Chronicle of Higher Education, 1999; Egan, 1999a,b; Groutage, 1999; Sullivan, 1999].

The Nevada Board of Regents and Governor approved 1.5 million dollars to allow Great Basin College (a comprehensive community college) to establish a bachelor's degree in elementary education. This new bachelor's degree program was initiated in the fall of 1999, and is a continuation of Great Basin's associate of arts in Education [Community College Times, 1999].

The 1997 Arkansas legislature designated Westark College (a community college) as a pilot project that can offer up to nine bachelor's degrees [Harriman & Thicksten, 1997]. The first and only Westark bachelor's program thus far began with a cohort of 20 in the fall of 1998. This initial program is a three-year Bachelor's of Manufacturing Technology [Harriman & Thicksten, 1997; Bonneville Democrat, 1998; Deerwood Democrat, 1998; Greenwood Democrat,

1998; Press Argus-Courier, 1998; Times Record, 1998a,b; Times Star, 1998; Evelyn, 1999; Speer, 1999; Trannehill & Conner, 2001].

The United States is not the only country with Community colleges expanding their mission to include baccalaureates. With the purpose of accommodating British Columbia's regional higher education needs, the university college system was established in 1989. British Columbia's university colleges provide traditional community college and baccalaureate programs to a region that covers more square miles than the state of Texas. University colleges are very similar to the community colleges in the United States, with the primary difference that university colleges offer baccalaureates [Callagher & Merner, 1983; Dennison, 1998; Petch, 1998; Allen, 1999; McDowell, 2000; Carr, 2001].

The university college system was established to provide new higher education choices to both urban and rural residents. One of the university colleges is located in British Columbia's largest metropolitan area, in close proximity to the University of British Columbia. The other four university colleges are rural and not in close proximity to other universities or colleges [Callagher & Merner, 1983; Dennison, 1998; Petch, 1998; Allen, 1999; McDowell, 2000; Carr, 2001].

Not only are community colleges in the United States and Canada currently offering bachelor's level education and degrees, several states have attempted, or are currently attempting, to provide baccalaureate level programs. In 1999, Governor Jeb Bush signed legislation allowing Florida's 27 community colleges to offer baccalaureate programs. Essentially, the Florida community college must

determine that there is community demand for the baccalaureate program, then allow the Florida University System the opportunity to meet the identified need. If the university system is unable or unwilling to meet the need, the local community college can establish the identified baccalaureate program. If the community college district decides to initiate a baccalaureate program, the university system is required to provide additional financial support for the third and fourth year of the baccalaureate program(s). To help fund this potential expansion the state university system received additional funding from the legislature. Currently, community college leaders in Florida are concerned that the university system will be reluctant to fully comply with the new state law [Florida Community College System, 1998; Walker, 1998a,b,c; Florida Legislature, 1999; James, 1999; Schmidt, 1999; Shoun, 1999].

The 1985 Texas House of Representatives considered a bill, introduced at the suggestion of Navarro Community College District, which would have created a four-year community college in Texas. Under the proposed legislation, a four-year community college could be established by local election in counties with not more than 40,000 residents and with at least 7,000 students in the county school system. At that time, the Texas legislature was having difficulty funding the state university system. This legislation was introduced as a low-cost alternative to extend baccalaureate programs to rural Texas communities. The legislation failed to become law. To date, no further legislation concerning the Texas four-year

community college has been introduced [Corsicana Daily Sun, 1985; Waldrop, 1985].

Kansas, Arizona, and Oregon have to date all been unsuccessful at convincing legislative bodies to allow community colleges to offer baccalaureates [Center, 1997; Rushlo, 1997; Healy, 1998; Puyear, 1998].

In Arizona, in 1998, the state legislature considered and decided against allowing community colleges to offer applied baccalaureates. Coincidentally, shortly after the legislation was tabled in favor of more study, the Arizona University System announced the first of what was to become many applied baccalaureate programs. This story has been repeated in every state to consider this change, with the exception of Arkansas, Florida, Nevada, and Utah [Healy, 1998].

Finally, at a 1998 meeting of the American Association of Community Colleges, one of the highest attended sessions was a discussion of the community college baccalaureate. This far-reaching dialogue demonstrated that there is strong interest in this shift in direction among community college leadership [Campbell, et al., 1998; Garmon, 1998].

Preview of Report

This study was initiated to describe the factors and issues surrounding development of the three-year Bachelor's of Manufacturing Technology degree that was established at Westark in fall 1998 [Evelyn, 1999]. Fort Smith, Arkansas has a population of 70,000 and a manufacturing employment base of 30,000 workers.

For the past 60 years, Westark College has worked closely with this industry to provide on-going workforce training. The latest manifestation of this relationship is the Bachelor of Manufacturing Technology. Chapter Two will describe this investigation's research methodology. Chapter Three will present a description of the Westark Bachelor of Manufacturing Technology, based upon literature obtained from Westark College staff. Chapters Four through Nine present the findings from six interviews. Chapter Ten will present the synthesis of this data and what the research reveals of this example of one community college baccalaureate program.

CHAPTER TWO

CONTEXT AND DESIGN OF THE STUDY

This study was initiated to describe the factors and issues surrounding development of the three-year community college baccalaureate at Westark College in Fort Smith, Arkansas.

Since the data were collected in the natural setting, constant comparative and grounded theory methodology were used to frame the course of this inquiry [Glaser & Strauss, 1967; Glaser, 1978]. The researcher compared data, emerging themes, assumptions, and relationships to uncover the factors and issues related to the Westark baccalaureate program.

Research Design

Along with the ongoing document search, several individuals involved with the Westark baccalaureate were interviewed. Westark's Associate Vice President for Curriculum Development and University Center Operations and the researcher selected subjects that were interviewed for the study.

The Petch study of the university colleges in British Columbia influenced the development of this inquiry. Petch used criterion sampling, in that he interviewed students, faculty, employers, and administrators from each of five university college campuses [Callagher & Merner, 1983; Dennison, 1998; Petch, 1998].

Role of the Researcher

The researcher collected and analyzed data gathered through interviews, literature review, document collection, and reflection. The researcher respected the rights of human subjects associated with this project by keeping their identities confidential and by allowing them to review the transcripts of their interview [Denzin & Lincoln, 1994; Rubin & Rubin, 1995; Carspecken, 1996; Bogdan & Biklen, 1998].

Researcher's Bias

The researcher's background includes over 12 years experience in higher education, at both the community college and university level. During this time, the researcher conducted a needs assessment for a computer science degree under consideration by Central Oregon University Center, where he was employed. Therefore, the researcher has been involved with the articulation of a two-plus-two relationship between Central Oregon Community College and the Oregon University System [Markwood & McKee, 1998].

The Central Oregon University Center is a collaboration between the Oregon University System (OUS) and Central Oregon Community College (COCC). The University Center expands college and university opportunities for residents of Central Oregon by delivering bachelor and master's degree programs on campus at COCC. Central Oregon Community College provides campus

facilities, classrooms, laboratories, staff assistance, and the University Center delivers degree programs [Markwood & McKee, 1998].

Furthermore, during the 1997 Oregon legislative session, the researcher's employer at that time, Central Oregon Community College, was unsuccessful at persuading the Oregon legislature to grant the college the authority to offer baccalaureates [The Bulletin, 1996; The Central Oregonian, 1996; Van Meter, 1996a,b; Volz, 1996; The Bulletin, 1997a,b; The East Oregonian, 1997; The Oregonian, 1997; Van Meter, 1997a,b].

Selection of Data Sources and Participants

Westark College was selected for the study due to the unique three-year Bachelor of Manufacturing Technology degree that includes integrated student master competencies. Westark's Associate Vice President for Curriculum Development and University Center Operations and the researcher selected participants for the study from the following representative groups:

- Student
- Employer
- College Administrator
- Instructor
- Accreditation agency representative, and State legislator [Callagher & Merner, 1983; Dennison, 1998; Petch, 1998]

Data Collection

The data were collected during the spring and summer of 2000. The researcher spent the third week of May in Arkansas conducting interviews. The researcher conducted a final interview by telephone in August. Electronic mail and telephone conversations were used for follow-up questions and clarification.

With the exception of the one telephone interview, the researcher met with each participant at a mutually agreed time and place. Interviews were tape recorded. During interviews, the researcher also took field notes on such things as non-verbal messages and on what was happening in the surrounding environment. The researcher transcribed the interviews. Participants were given the opportunity to review the transcripts of their interview. This allowed participants the opportunity to clarify their statements [Denzin & Lincoln, 1994; Rubin & Rubin, 1995; Carspecken, 1996; Bogdan & Biklen, 1998].

The length of each interview varied, with the shortest lasting a little over one hour, and the longest lasting three hours. The other interviews lasted between one and one-half and two hours. There were two follow up interviews while the researcher was in Fort Smith. There were only a couple follow up telephone conversations after the researcher returned from Fort Smith [Denzin & Lincoln, 1994; Rubin & Rubin, 1995; Carspecken, 1996; Bogdan & Biklen, 1998].

Interviews

Framing questions were used to guide the interviews. Each individual interviewed was involved in some capacity with Westark College's three-year community college baccalaureate program. Framing questions were different for each participant. Each participant was asked the following framing questions, not necessarily in the listed order, during the initial interview:

❖ Student

- Please describe the process Westark followed to create this unique baccalaureate program.
- What was your involvement in this process?
- Explain why you decided to enroll in this community college baccalaureate program.
- Describe your experience as a Westark baccalaureate student.
- Please share your impressions about the quality of this program.

❖ Employer:

- Please describe the process Westark followed to create this unique baccalaureate program.
- What was your involvement in this process?
- Explain how your company is currently involved with this community college baccalaureate.
- Describe how your company will benefit from the Bachelor's of Manufacturing program at Westark College.

- How has the Bachelor's of Manufacturing benefited your employee(s)?
- Please share your impressions about the quality of this program.

❖ College Administrator:

- Please describe the process Westark followed to create this unique baccalaureate program.
- What was your involvement in this process?
- Describe the process for accrediting the Westark Baccalaureate. If there currently is no such process, how will such a process be created?
- Please share your impressions about the quality of this program.

❖ Instructor:

- Please describe the process Westark followed to create this unique baccalaureate program.
- What was your involvement in this process?
- Describe the process for accrediting the Westark Baccalaureate. If there currently is no such process, how will such a process be created?
- Please share your impressions about the quality of this program.

❖ Accreditation agency representative:

- Please describe the process Westark followed to create this unique baccalaureate program.
- What was your involvement in this process?
- Describe the process for accrediting the Westark Baccalaureate. If there currently is no such process, how will such a process be created?

- Please share your impressions about the quality of this program.

❖ State legislator:

- Please describe the process Westark followed to create this unique baccalaureate program.
- What was your involvement in this process?
- Describe the process for accrediting the Westark Baccalaureate. If there currently is no such process, how will such a process be created?
- Please share your impressions about the quality of this program.

The inquiry was open-ended. Unanticipated discussion and follow-up questions added meaning to each interview. The researcher made it clear from the outset that the purpose of this study was to describe the factors and issues surrounding development of the three-year community college baccalaureate at Westark College; therefore, discussion not related to this topic was kept to a minimum. Furthermore, this was a historical study, and not an evaluation of the success or failure of the Westark baccalaureate.

Data Preparation

The data from each interview was analyzed independently. Common threads and themes were identified and organized into coded categories. Next, the categories were described in relation to data within the category. Finally, the emerging description of one category was compared to all other categories. This synthesis was used to uncover the salient factors and issues related to the develop-

ment of the Westark baccalaureate [Denzin & Lincoln, 1994; Rubin & Rubin, 1995].

Vignettes are used in chapters four through nine to relate each subject's story. The voice in each vignette is that of the subject, as interpreted by the researcher. The vignettes were crafted by editing the transcribed audiocassette recording from each interview. The vignettes were then organized around a common sequence of events. For example, the administrator's description of his work with the accreditation agency is presented in one segment of this vignette. Each participant reviewed his or her vignette to ensure the researcher accurately portrayed their story.

CHAPTER THREE

THE PROGRAM

This study was initiated to describe the factors and issues surrounding development of the three-year Bachelor's of Manufacturing Technology degree program that was established at Westark in the fall of 1998 [Evelyn, 1999]. Fort Smith, Arkansas has a population of 70,000 and a manufacturing employment base of 30,000 workers. For the past 60 years, Westark College has worked closely with this industry to provide on-going workforce training. The latest manifestation of this relationship is the Bachelor of Manufacturing Technology degree.

Program and Curriculum

The Westark College Bachelor of Manufacturing Technology degree is outcome-based. In order to graduate, the student has to master outcomes integrated throughout several core competency modules. Each student works through the modules at his or her own pace. The instructors in the program provide the students with guidance only when necessary.

The modules are organized into four categories, or "Foundations." Following the completion of a Foundation, each student has to complete a "Transfer Activity" prior to moving on to the next Foundation. In the transfer activity, the student has to demonstrate, through a group activity, a synthesis of the competencies mastered in the Foundation that has just been completed. This

process is intended to build teamwork and leadership skills while reinforcing the outcomes in the Foundation.

The first Foundation, which is designed to overarch all of the foundations, is “Leadership.” Figure 3.1 lists the modules in the Leadership foundation. The curriculum for each foundation is dynamic; therefore, the modules for each foundation are constantly evolving.

Figure 3.1

Leadership Foundation Modules

Individualized Self Paced Modules	
• Word Processing	• Decision Making
• Presentation Graphics	• Problem Solving
• Database	• Ethics
• Spreadsheets	• Time Management
• Internet	• Professional Development
• Critical Thinking	• Written Communication
Facilitated Group Modules	
• Oral Communication	• Conflict Resolution
• Public Speaking	• How to Lead Meetings
• Interpersonal Skills	• Teamwork

Following the Leadership Foundation, and transfer activity, the student has a choice between three Foundations (Figure 3.2) that cover the technical competencies needed in the manufacturing industry. Some of the curricula for the modules in these Foundations are currently in the developmental phase. Furthermore, the curricula will evolve, as the Fort Smith manufacturing industries’ technical needs change.

Figure 3.2

Manufacturing Specific Modules

Producibility	Planning	Production
<ul style="list-style-type: none"> • Quality foundations • Measurement and calibration • Metallic materials and processes • Statics • Strength of materials • Conceptual design • Drawing and sketching • Geometric dimensioning and tolerancing • Computer aided design • Product development and testing • Packaging, preservation and storage • Financial management • Work-based learning 	<ul style="list-style-type: none"> • Fluid power • Electrical and electronic circuits • Computer numerical control • Robotics • Quality systems • Automated mfg systems • Synchronous mfg • Principles mfg process • Industrial engineering basics • Cycle time analysis • Demand flow • Mfg information systems • Communications systems • Mfg process development • Assembly processes and systems • Plant layout and process design • Supply chain management • World class mfg • Work-based learning 	<ul style="list-style-type: none"> • Safety • Training • Employment law • Labor relations • Environmental • Preventative maintenance • Data acquisition and analysis • Performance measures • Process control • Continuous process improvement • Kaizen and continuous improvement • Customer satisfaction • Enterprise management • Manufacturing resource planning • Logistics and distribution • Work-based learning <p>*mfg = manufacturing</p>

Finally, once the Foundations are completed, the program culminates in what is called a “Capstone Experience.” The capstone experience is a portfolio that quantifies and qualifies each student’s entire baccalaureate experience [Harriman & Thicksten, 1997; Evelyn, 1999].

Definition of Terms

- **Applied Baccalaureate** – Certificate and Associate in Applied Science (AAS) Degree programs have met the needs for workforce development, and [at community colleges] they remain the mainstays in this arena. However, in some fields the educational needs of the workforce have resulted in larger and larger course content of many AAS degrees, to the point where some can no longer properly be called two-year degrees. Nonetheless, in some of these fields there is a need for a [applied baccalaureate program] that goes beyond the scope of even the expanded AAS degree [Call, 1997; Puyear, 1998].
- **Apprenticeship Programs** – “Combining on-the-job training and related instruction in the classroom to help apprentices achieve competence in the technical and related aspects of their occupations” [California State Dept. of Education, 1974].
- **Banked Credit** – Allowing students, through assessment, to apply demonstrated mastery of competencies learned through previous coursework, toward future credit coursework, at no additional cost [Kintzer, 1997].
- **Capstone Experience** – Directed work-based learning experience for use in improving technical education and preparing students for high-technology occupations [McNutt, 1995].
- **COMPASS** – A computer-adaptive testing instrument. The exam is taken on the computer and the exam self-adjusts to find the student’s ability level. If a question is answered correctly, the next question will be harder. If the question is answered incorrectly, the next question will be easier. This continues until the computer determines the student’s ability level. This is not a timed test and is scored upon completion of the exam [American College Testing Program, 2001].
- **Competency Based** – “Knowledge identified by professionals in a particular field as being essential for mastery of that field” [Western Governors University, 2001].
- **Consultant-Evaluators** – Institutional accreditation through the [North Central] Commission on Institutions of Higher Education is carried out by educators from the North Central region. [Many of] these men and women are asked to participate [as team members] in the accreditation process as Consultant-Evaluators.

The responsibilities of a Consultant-Evaluator [include] considerable preparation before the visit (studying institution and Commission documents, making arrangements on the home campus and so forth). During or immediately following the visit, [consultant-evaluators] will be involved in writing parts of the team report and/or revising the report before its submission to the institution, and to the Commission [North Central Association of Higher Learning, 2001].

- **Corporate Universities** – “Promoting learning within an organization under a strategic umbrella with the Corporation providing instruction and training in areas such as governance, vision/mission, funding, organization, stakeholders, products/services, learning partners, technology, measurement, and ongoing communication” [Meister, 1998].
- **Customized Training** - Programs developed by community colleges to meet specific needs of individual businesses and industries [Kopecek & Clark, 1984].
- **For-Profit Colleges** – Colleges or universities that are in business to make a profit, are not tax exempt under Federal IRS Code, and provide a wide range of educational programs, primarily related to business and industry training needs [Strosnider, 1997].
- **Foundation** – A category containing several competency-based modules to be mastered by each student in the Westark Bachelor of Manufacturing Technology degree program.
- **General Education** – The process of developing an academic framework on which to place knowledge stemming from a variety of sources related across a variety of disciplines. This academic experience is intended to help students think critically, develop values, understand traditions, respect diverse cultures and opinions, and apply that knowledge outside of the classroom [Altieri & Cygnar, 1997].
- **Manufacturing Executives Association** – Organization comprised of 64 executives from manufacturing companies representing the 30,000 manufacturing employees in the Greater Fort Smith, Arkansas area.
- **DACUM** – Method of job or occupational analysis where a facilitator and a committee of experts from industry create a profile chart of the general knowledge and skills, worker behaviors, tools, and equipment needed to perform targeted job functions [Norton, 1997].

- **Outcomes** – In this study Outcomes are the same as Competencies.
- **Portfolio** – A tool used by students to document the Capstone Experience.
- **Self-Paced Module** – Containing competencies related to a specific industry application within a particular field, such as manufacturing. Students acquire and demonstrate mastery of the competencies within these modules at his or her own pace.
- **Transfer Activity** – A group presentation and written assignment designed to help students synthesize learning that has occurred within a particular Foundation.
- **Workforce training** – Programs developed by community colleges to meet specific needs of workers in industry [Kopecek & Clark, 1984].

The Interviews

The participants interviewed were an administrator at Westark College, an employer in Fort Smith, an Arkansas State Senator, an instructor at Westark College, a student at Westark College, and a representative of the North Central Association of Colleges and Schools. Subjects shared their story related to the development of the Westark Bachelor of Manufacturing Technology degree. Chapter four through chapter nine relates the researcher's interpretation of each subject's story.

CHAPTER FOUR

THE ADMINISTRATOR

The Administrator is Westark College's Associate Vice President for Curriculum Development and University Center Operations. He has been the driving force behind the development of the Bachelor of Manufacturing Technology degree. To this end, he facilitated the planning sessions that resulted in the legislation authorizing the degree, and the competencies for the program. Working with the instructors he has hired, the Administrator is developing the curricula for the modules. Furthermore, he has been involved with the selection of each student to enroll in the baccalaureate program. The following vignette is related using his voice.

The Administrator's association with Westark College began when he was appointed Technology Division Chair in March 1994. He had spent the previous 12 years at Wichita State University in the Industrial Technology Department and Department Chair for the final six years. When he first started at Westark, the Division of Technology housed electronics, drafting, welding, automotive, quality technology, and machine tool. He also worked closely with industry supervising students involved with workforce training and apprenticeship programs. From the beginning, he had a strong affiliation with industry and manufacturing. His non-

academic background had been in manufacturing, with industrial experience as a manufacturing supervisor and assistant plant manager for a company in Kansas. Furthermore, including his time at Westark, he has been involved with the Society of Manufacturing Engineers for 22 years. He has held over 30 elected or appointed positions with manufacturing related organizations. Including the past six years at Westark, the Administrator has been working in higher education for 18 years.

The Administrator facilitated the initial research and planning for the baccalaureate program. After the legislature granted Westark the authority to offer the Bachelor's of Manufacturing Technology degree, during the 1997 Legislative Assembly, the Administrator's role at Westark was changed. At the time of the legislation, he was still the Division Chair for Technology. During summer 1997, it became his job to implement the Bachelor of Manufacturing Technology degree. An interim division chair was assigned to his old position. Without the worry of the daily responsibilities of operating the division, the Administrator could focus on this project.

During late spring of 1998, the President at Westark College implemented a reorganization of the campus. He wanted to eliminate divisions, because the root word 'divide' did not seem appropriate, since employees were trying to work together. At that time, ten people were division chairs or directors in the same categorical level of management. Moreover, at the time, partly due to vacancies, six of the incumbents in these positions were interim appointments or the positions were unfilled. The president wanted to establish Deans at a higher level of

administration, each with greater responsibilities, and asked for applications from within. Westark did not go outside to fill any of the positions, so all the people that were currently employed had an opportunity to apply for the dean positions. In the end, internal candidates filled five different dean positions. One of these new Deans managed the Career College. In addition, during this time, the Administrator received the new title of Associate Vice President for Curriculum Development and University Center Operations. However, the baccalaureate program was assigned to the Career College.

The Administrator's formal organizational relationships are rather mixed. Following the reorganization, a provost was established to oversee the academic side of the college. The five deans report to the provost, as does the Administrator.

Although the Bachelor of Manufacturing Technology degree is the responsibility of the Administrator, and the assignment of a separate Career College, it is the ultimate responsibility of the Provost. Therefore, under the leadership of the Provost, the "chain of command runs rather smoothly". The program reports to the Dean of the Career College, who reports to the Provost. Moreover, the Administrator, who runs the program, also reports to the Provost.

It is important to note that the baccalaureate project has been very important to the president. The President attended committee meetings, made presentations to the manufacturing industry groups, and helped with the overall lobbying effort at the legislature. In short, the President made this new program his primary priority for Westark College during the later half of the 90's. Therefore, since the program

is the number one priority of the President, the Administrator also had to informally answer to the President.

The Administrator is a strong proponent of outcome-based education and has been a leader of the movement toward outcomes in Arkansas. He is also the current president of the National Association of Industrial Technology, the Community College Technical Institute Division—a leader in the move toward outcome-based education.

Part of the Administrator's job is operating the University Center at Westark. During the 1980s, the University of Arkansas at Little Rock conducted a study that looked at educational needs throughout Arkansas. "This study confirmed the perceived need for baccalaureate public education in the Fort Smith area." The study recognized that Fort Smith has been a strong industrial community and that baccalaureate programs should support industry. Furthermore, during the same time, Westark contracted with a Claris group to study how the community perceived Westark and to recommend what Westark ought to be providing the community. "This survey indicated strongly that Westark should offer baccalaureate programs." The University Center was established in 1989 by the state legislature to respond to this need.

Westark began inviting schools from throughout Arkansas, public and private, to establish degree programs in Fort Smith. The University Center programs are traditional four-year and master's degree programs. At present, the University Center programs are in Liberal Arts, Computer Information Systems,

Adult Education, Secondary Education, Elementary Education, Vocational Education, Special Education, Education Administration, Human Resource Development, Community Development, and Business Administration. The Administrator is currently working on a baccalaureate Engineering degree that has been requested by local industry.

With the exception of the University of Arkansas at Fayetteville, all of the partnering universities have a program coordinator who lives in Fort Smith and teaches and advises for the program. With the exception of some advising, Westark handles the enrollment services for these programs. In addition to classroom space and technical assistance, Westark provides office space for University Center programs. During the 1999/2000 academic year the 450 students enrolled in University Center programs were included in the headcount of Westark's 3,100 full-time equivalency.

There are over 200 manufacturers in the Greater Fort Smith Area that employ more than 30,000 people. Westark College traditionally has had a strong relationship with the manufacturing industry through its Business and Industrial Institute, whereby customized training is offered to all the companies and delivered on company time and at the company's plant. This includes a money-back guarantee if the company is not satisfied with the training.

Working with the 64-member Manufacturing Executives Association (MEA) it was determined that there was a need for baccalaureate level education in manufacturing management. To determine the makeup of such a program, Westark

contracted with an outside consultant to lead the MEA through a modified DACUM process. In January of 1997, the consultant met with a group of about 20 individuals representing 16 of the larger manufacturing companies in the area. A modified DACUM was used because the Administrator had already identified programs that were relevant to what the MEA wanted to accomplish. Of particular interest was a program in the Seattle, Washington area. A local community college and Boeing had developed a partnership that dealt with manufacturing education. However, it was a two-plus-two, high school to community college effort and not baccalaureate level. What the Administrator liked about this program was that the Community college had done a good job of working with Boeing to identify competencies. In particular, they were able to identify different levels of competence.

The Administrator had also studied a relationship between the University of Houston and the Houston-area community colleges. These were two-plus-two engineering technology programs that had identified specific outcomes. This looked good on the surface; however, although the curriculum looked different on paper, the schools did not change how the courses were taught. Therefore, it was almost an exercise in identifying what they were already doing and then going back to the classroom and continuing with the same practice. This was the Administrator's interpretation of these two programs, and it was decided that these practices were not of value to Westark's ultimate objective.

The University of Dayton and Sinclair Community College seemed to have the most relevant approach to developing the curriculum in a way that was in

concert with what Westark wanted to do. Sinclair had developed a two-year manufacturing technology program that articulated directly into the four-year program at the University of Dayton. They had identified competencies and specific modules of instruction. They did not use the self-paced, individualized approach that Westark would later develop, but they took three modules into a three-hour class that had already been established. This program was the closest to what Westark wanted to develop, and at that time Westark was already considering manufacturing technology. As the Westark Bachelor degree would develop, a strong leadership piece would be included as a separate and overarching foundation.

As the Manufacturing Executives selected for the DACUM process worked through identifying and sequencing appropriate content it became apparent that leadership was the most important skill set. The manufacturing executives listed leadership components that they felt were important and that were not included in the Sinclair program. They decided that a “separate leadership component needed to be up front in the program.” The Manufacturing Executives believed that some of their employees already possessed basic leadership skills essential to middle management. Furthermore, they believed that some employees can learn these skills and that other employees may not be able to learn how to be a leader. Therefore, the Manufacturing Executives wanted to screen for leadership ability up front in the program, very much like higher-level math screens for engineering ability in an engineering program. This was intended to “weed out” those people that do not have the ability or motivation to become a leader in a manufacturing company.

Therefore, it was decided to include a foundation of leadership skills at the beginning of the program.

Having completed a plan through the DACUM process, Westark developed a proposal to gain authority from the State Legislature to offer up to nine baccalaureates. The intent at the time was to gain approval for the Bachelor of Manufacturing Technology degree. However, although Westark did not know what the other eight degrees would be, it decided to request greater degree granting latitude to avoid having to repeat this process. Westark decided that no more than 25 percent of its programs would be at the baccalaureate level, which at that time would equal nine baccalaureate programs.

Another unique aspect of the Westark baccalaureate proposal was that the degree needed to be achievable in less than four years. It was also apparent that the new program would be applied baccalaureates. As has already been mentioned, Fort Smith has a strong presence in manufacturing, with over 200 companies and 30,000 employees. Fort Smith is also a major health center in Arkansas as well as serving as a transportation hub for the state. Moreover, just like the rest of the United States, information technology is having a major impact on Fort Smith. To this end, Westark is currently considering a baccalaureate in Information Technology. Bachelor's degrees in Health and/or Transportation are also future possibilities. Westark currently has programs in all three of these fields at the associate degree level.

Now that Westark had approval for the new degree and had committed the necessary resources, the next challenge was “integrating the program into a relatively traditional faculty.” Many of the faculty had been at Westark for a long time, and had been integrally involved with establishing Westark as one of the top institutions of higher learning in Arkansas. For instance, on “the state junior rising exams, Westark students constantly score in the top two or three schools among community colleges, and private and public colleges and universities.”

In order to get the baccalaureate program started, Westark needed to be very forward thinking in order to “achieve the level of integration necessary for success.” Since the faculty was very traditional and entrenched in the existing community college programs, Westark’s administrative leadership decided not to bring everybody on board initially. The leadership was concerned that this project could turn out like countless research projects that report great possibilities, but then end up becoming business as usual. Therefore, Westark administration tried to not include faculty in the early stages of development until a path could be defined. The Administrator had to work in isolation from the faculty, although he had the “full support of the administration.” After the program was approved, both the full-time and part-time faculty hired to teach in the program were brought in from outside the current faculty.

The full-time Bachelor of Manufacturing Technology degree faculty was required to have “significant” manufacturing industry experience at the management level—at minimum a master’s degree, with a doctorate being preferred, and

10 years' combined education/manufacturing experience. This is different than the requirement for other full-time faculty on campus, who are not required to have work experience.

The minimum qualification for part-time instructors is less restrictive. For instance, someone with only a bachelor's degree could be hired to teach in the program. There were two part-time instructors and they both had master's degrees and over ten years of industrial experience, thereby meeting the criteria for a full-time instructor.

As Westark began moving in the direction of hiring faculty for the baccalaureate program, they found that they could not get qualified instructors for what they were paying other faculty on campus. To help deal with this problem, when Westark reorganized, it stopped hiring faculty on tenure tracks. Therefore, in time, tenure will no longer exist. This has not hurt faculty recruitment and has made it easier for Westark to "pay faculty in high demand areas what the market will bear." Westark began moving toward "operating more like a private business."

Many faculty members became disenchanted with the elimination of tenure and the College's new direction. The administration justified these changes by pointing out that the higher education market place had changed in recent years. The administration believed that with the advent of the corporate universities, such as Disney, and Microsoft, and the new wave of virtual education, Westark needed to act aggressively to continue serving the college district.

Westark administration believed that students' receiving a quality education which is worthwhile and credible, would choose Westark over the competition. Moreover, community colleges have traditionally had smaller class sizes and can therefore provide attention that is more personal for the students. However, Westark was concerned that students would choose the competitor with name recognition over Westark, especially if Westark classes were more expensive. Furthermore, "the Arkansas higher education playing field is level." In other words, all schools can offer any program at any location throughout the state. Therefore, one reason Westark instigated bachelor of Manufacturing Technology degree in order to become more competitive in the higher education marketplace.

It may seem on the surface that the Bachelor of Manufacturing Technology degree is similar to the engineering degree under consideration by University Center. However, there is a distinct difference between engineering programs and the Bachelor of Manufacturing Technology degree. The engineering programs under consideration by University Center focus on higher-level research and design skills; whereas the Bachelor of Manufacturing Technology degree program is intended for front-line supervisors through plant managers. For instance, "manufacturing technology does not require a strong background in math," however, these positions do require a management and leadership background, as well as a technical understanding of the manufacturing industry. An engineering program may require 24 hours of math; the Bachelor of Manufacturing Technology

degree program requires 24 hours of applied leadership. “This is an essential difference.”

The Bachelor of Manufacturing Technology degree may be compared to a business degree; however, students in this program are not receiving training to become corporate managers. For example, they do not need to know about mergers and acquisitions. However, they do need to know about cost accounting in a particular area of a manufacturing operation. The basic concept behind the Bachelor of Manufacturing Technology degree is that since the program is context based to the manufacturing industry, it will produce students whom will be very effective in manufacturing supervisory positions.

All of the students working toward the Bachelor of Manufacturing Technology degree were already employed in manufacturing related positions when they entered the program. Most of these students were already in positions that Westark would be “proud” to announce publicly. Once in the program these students do not leave their jobs, and since the program is “self-paced,” the student’s progress through the program is individualized. Many of the students were using the degree to validate themselves in their current position. Moreover, some of the students come with expertise in some of the areas that were taught, and Westark is involving these students in some of the developmental aspects of the later foundations. Moreover, some of the students were involved in the initial development of the degree concept.

After the program was approved by the legislature, Westark began orchestrating what had been developed for content through the DACUM process. Eighty topical areas of competence were identified through this process. Westark asked the Manufacturing Executives Association to identify volunteers from their companies that had expertise in each of these topical areas. These volunteers were organized into cluster groups that met over a six-month period to decide what their content area would mean for a manufacturing manager. Some of the students that were in the program were involved in that process. Westark then filtered this information into four main Foundations that contained 67 competencies that each successful graduate would be required to master.

When a prospective student shows an interest in the program there is an initial counseling session with the program administrator. This session includes a history of how the program was developed, how the program is unique, and how it takes a certain kind of motivation to work through the individualized, self-paced modules. In addition, it is explained that there is a strong emphasis on teamwork and group activities. Prospective students need to understand enrollment is different, and payment for classes is different. This counseling session normally takes about an hour. Moreover, this initial counseling is at times conducted with two or more students in the same session. These sessions occur throughout the year, any time a prospective student shows an interest in the program.

Arkansas requires an entrance test for all students that do not have an ACT score. Westark uses a computerized version of ACT's Asset assessment. This

ACT product is called Compass. All of the prospective baccalaureate students were required to take this competency test if they have not already taken ACT. “This test is not used as a placement test, but rather as an entrance examination.” Therefore, in order to be accepted into the program, prospective students must score into college-level reading, writing, and math.

Those prospective students who pass the entrance examination were then asked to develop an application packet. The packet contains the results of the test, a letter of application to the program, evidence of anything the student has done to “prove self-motivation,” detailed work history, and performance appraisals. Past applications have included volunteer work in the community, and academic transcripts from previous college education. Finally, the packet must include letters of recommendation from employers and others who can “vouch for the prospective student’s abilities.” Westark is considering using a learning style assessment, to help determine self-motivation, as part of entrance into the program. In the future, the results of the personality inventory may be included in the packet.

A team of three people, usually two instructors and the Administrator, then reviews the application packet. Westark initially decided to limit enrollment in the first cohort at 25. Since fewer than 25 applied for the program, and they were all admitted, “Westark did not have a “cut score” but instead developed a ranking.” Since then a “cut score has been developed based upon the scores of the first 20” people admitted into the program. Therefore, a lower limit was developed that will be applied to future applicants. However, if a prospective student’s portfolio falls

below this cut score they will be given a chance to revise their portfolio. What Westark has found is that it is usually the “evidence that is displayed poorly, and not that the person is not qualified” for admittance into the program.

When a prospective student completes the portfolio, s/he is invited for a personal interview with a panel of between three and six people — all faculty and instructors from throughout the campus. During the interview, the prospective students will be asked several questions that were based primarily on the information in the portfolio. If all goes well with the interview, the student is admitted to the program. Since students can enroll into the program at any time, this process occurs throughout the year.

Once a student has been accepted into the program, a payment of one-sixth of the \$6,000 tuition is required up front. This payment will allow the student to move through one-sixth of the modules. When a student completes one-sixth of the modules, an additional payment of \$1,000 is required for the next sixth of the program. This payment procedure is repeated through to the completion of the degree. Since the baccalaureate is a three-year program, and Westark operates on semesters, this process was established to coincide with the school’s fiscal year.

As has already been mentioned, this degree program is competency-based. Beginning with the leadership foundation each student has to master the competencies in a set of modules until that foundation has been completed. Once the student enrolls in a module, as far as Westark is concerned all the student has to do is demonstrate competence to move on to the next module. The key to Westark’s com-

petency based program is the validation of competency. While Westark does provide sufficient learning activities and exercises for students who come with no competence in the module, the student “self-professes” competence, and there is no requirement to complete all the learning exercises and activities prior to assessing. Although the learning takes place predominantly in an independent, self-paced mode, Westark does provide an instructor who servers as both a facilitator and a mentor.

Furthermore, once the leadership foundation has been mastered each student completes a group-based transfer activity, where they take everything that has been learned in a foundation and apply it in a major project. This project culminates in a written document and an oral presentation. This is an opportunity for the students to apply their knowledge in a cohort with other students.

The program culminates in what Westark calls a Capstone. Similar to the transfer activities, the capstone includes a team-based activity, a written assignment and a presentation. The purpose of the capstone is to synthesize the entire learning experience. Each time the students work in a team, leadership skills are evaluated. The students work in a team five times during the program: three times during transfer activities, once to complete six modules in the leadership curriculum, and once during the capstone experience. There is the equivalence of 30 credit hours of team-based activity. However, within the program the competencies are referred to as units, since they are not seat- or time-based.

Westark has assumed that the students have a goal to continue to be employed in manufacturing, and have established a program to help improve their standing within this industry. However, Westark counsels students that this new and innovative degree will not transfer to other colleges, which includes both undergraduate and graduate programs.

Through spring 2000, only two students of the first cohort had dropped out of the program. One of the students was constantly having trouble with his writing. Westark believes that students write more in this program than they do in any of the baccalaureates offered through University Center. Each time students complete a writing assignment it is evaluated by the program's English instructor. Interestingly, this student already had an associate degree, which included having completed the general education requirement for English. The other student who dropped out was a single mother working 50 to 60 hours a week, who just could not find the time to commit to the program.

Each student's progress is tracked on a progress chart. This is done for the benefit of the student. The date of enrollment in an individual module is indicated in a left side triangle that makes up a rectangle. The student's completion date of the module is then indicated on the right side triangle.

Students enter the program at different times, and then work through the program individually. In the leadership modules Westark has allowed students who have completed the prerequisite modules in the self-paced section to move to the facilitated group modules. This allows the student to move through the

program with less risk of having to wait for a critical mass of students to reach a group activity. Students completing the facilitated group activity will then return to the leadership modules prior to moving on to the manufacturing foundations of the degree.

The cost of this program is significantly higher than most programs on campus. There were only 27 students enrolled in the program. There were many staff tied up in curriculum development, which is time consuming and expensive, since “each of the modules in the baccalaureate [were] being developed from scratch.” The program will become more cost effective once the initial curriculum development has been completed.

Although the tuition for this program is higher than other Westark programs, the tuition is less expensive than University Center programs. To develop a tuition rate for the program, Westark averaged the cost for a student to attend two years at Westark, and two years in a University Center baccalaureate program. They came up with an average cost of \$55 per credit hour. Factoring out \$55 per unit over three years, the total cost for the program is \$6,000, which does not include books.

Most of the 27 students have tuition reimbursement programs offered by their employer. In the beginning of the program, the MEA was concerned that certain parts of the program resembled Westark’s certificate in workforce leadership. Members of the MEA were concerned that Westark was charging them twice for the same product. Westark assured the MEA that the new program was not the

same. For example, the two-year-certificate did not always test for competency. The largest difference, however, was that unlike the certificate, the baccalaureate integrated the general education requirement throughout the competencies. However, because of the perception, Westark did not charge tuition to students that had completed the certificate and could pass the test to certify competency in the leadership module. This was called, “banked credit.” Westark decided to allow banked credit in areas where there was demonstrated overlap. Westark did this to “grandfather certificate students into the program,” since the certificate had been around prior to the baccalaureate. However, future students will not be able to bank credit.

“Another difference between this community college baccalaureate [program] and the more traditional degrees is in how the degree is accredited.” Essentially, the accrediting agency wants Westark to maintain “the rigor of a baccalaureate;” the accrediting agency does not have a system for evaluating the Bachelor of Manufacturing Technology degree program. In particular, the accrediting agency is concerned about the general education requirement of the degree.

A consultant was hired to help with the “difficult task of demonstrating to the accreditation agency that the general education requirement was met.” The consultant was from the University of California at Berkeley, where she worked for the National Center for Research in Vocational Education. The consultant had a lot of experience working with integration of general education into a competency-based curriculum. In particular, she was asked to provide Westark with a recommendation on how to demonstrate that the general education requirement could be

transcribed. Members of the faculty were selected to help the consultant with this process. For the first time, faculty representing all aspects of general education requirement had been asked to participate in the development of the Bachelor of Manufacturing Technology degree. Prior to this time only faculty from mathematics and English had participated.

The consultant challenged the faculty to determine when a student completes enough modules in this program to equate to Westark's Freshman English Composition course. She said at that time Westark would transcript the student for Freshman English. Therefore, the students' transcripts for the general education requirement would look the same as the transcript of any other student at Westark. This would remain consistent with Westark's theory concerning the general education requirement. Furthermore, Westark hoped that this would help the "accreditation agency understand the relationship of the integrated English components." Westark also believed that this might help with the transferability of those pieces of the program, although, like any program, "the degree of transferability is up to the receiving institution."

Westark's hypothesis about the general education requirement for this program is based upon a simple premise. For instance, an institution having six sociology teachers may have two of these instructors use different books for the same class, and for a variety of factors each class is taught differently. Within these differences, it might be difficult to measure general education. If a huge diagram of any discipline were created, it might be found that there is a certain core

is taught. Each teacher will have a different variation on how to best help students learn general education. Therefore, if a cross section of teachers were asked what general education requirements are important there would be a diversity of responses. Where the answers intersect most frequently will provide the common core of agreement. Then take that core and say that it is only about 65 percent of what is generally taught by the aggregate. Then, for the sake of argument, say the students only retain 15 percent of that what is generally agreed to be the general education requirement.

Alternatively, start with the 65 percent generally agreed to be the general education requirement. Then teach these requirements in the context of the applied baccalaureate. Westark believes that the retention will increase to between 20 or 30 percent. In Westark's opinion, the net gain is the same as the more traditional baccalaureate programs, and that the purpose of general education is covered. However, this is an unfamiliar concept for the accreditation agency.

Even if the accreditation agency accepts this method of transcription, Westark still believed that they should tell students that the program is not transferable. This was the recommendation of the accreditation team, as well as Westark's legal council. Westark decided that it was best to err on the side of caution, at least until the transferability had been proven. Therefore, Westark made sure that the catalog, application, and other documentation explained that the degree and credits within the degree are not transferable.

To help establish parameters, North Central Association of Colleges and Schools (North Central) established a task force to study the advent of baccalaureate education at community colleges. North Central is Westark's accreditation agency. At Westark, the task force decided to create a joint committee including members from the Task Force and Westark College representatives. This partnership was charged to work through the issues that are involved in developing this kind of degree program. To begin the process, Westark spent considerable time providing background on the Bachelor of Manufacturing Technology degree for the five representatives from the accrediting agency. The Task Force had already met once, with two more meetings planned for the future. As Westark had expected, the Task Force was concerned about the higher level of learning that occurs in traditional general education courses. The general education requirement has often been defined by seat time and grades. However, this measure would not work for the Westark baccalaureate program. Therefore, working in good faith, the Task Force set out to establish a method for evaluating the general education requirement.

Using funding from a 1992 Perkins Grant, Westark had identified competencies in general education. Through this process, Westark developed 90 different general education areas of competency. To help the Task Force work through this problem, Westark created a chart that listed the 90 areas of general education competency along the x-axis, and listed the 67 modules of the baccalaureate program along the y-axis. Then a coding key was used to show where the 90 general educa-

tion competencies fit into the 67 baccalaureate competencies. The accreditation representatives of the task force felt that this exercise showed that the baccalaureate program was doing an adequate job of teaching general education in some areas, but was lacking in others. For instance, the data showed that the program was doing an outstanding job teaching writing skills; however, the accreditation representatives interpreted the grid as showing a weakness in math skills. The Westark team members argued that this was because of the applied nature of the program, only teaching those math skills that will be needed in the manufacturing workplace. Therefore, at the urging of the accreditation team members, Westark resolved to rework the presentation of the general education requirement as a flow chart.

The initial visit of the accreditation members of the Task Force lasted three days. Most of this time was spent explaining the program in general terms. The accreditation members did meet for lunch with industry representatives from the baccalaureate advisory committee. Two to three hours were spent looking through the textbooks and other course materials. Very little time was devoted to analyzing the curriculum. Westark's intent was to make sure that the accreditation representatives understood that this degree program was "unique," and "different" than traditional baccalaureate programs. Furthermore, Westark wanted the team to understand that the program is very specifically designed for a narrowly focused target audience.

In the North Central book on accreditation, one section categorizes a school as an associate or baccalaureate granting institution. Westark wants their status to

be changed from associate to bachelor degree granting college. If North Central recognizes this change, it will mean, among other things, that they believe the Westark baccalaureate meets the criteria and goals of the general education requirement.

The joint committee is trying to determine how to address the issues of accreditation and how to assure that schools integrating general education are maintaining the quality and the original intent of the activity. If these programs cannot be measured using the old measuring sticks, how will they go about determining quality? In short, “how can they continue as the accrediting quality assurance body if they do not have some way to measure this new program?”

North Central also wants to help guide Westark, because they believe they know what the important standards are for a baccalaureate program. North Central believes they will have to address this issue at other community colleges in the future. There is the normal amount of opposition for a change of this nature. However, “North Central is not opposed to the concept, just so long as a method for assuring quality can be developed.”

Finally, the legislation for baccalaureate granting status was crafted independent from the Arkansas Department of Higher Education (ADHE). This created the potential for a “paradox” whereby the degree granting status had become a part of Arkansas State law, without approval from the state agency designed to approve new degree programs. Westark decided, since the baccalaureate program had become law, to proceed with the development of the program. During the process

of developing the program, the President of Westark wrote ADHE a letter of notification explaining that Westark was going to be offering this Bachelor's degree as approved and authorized by Act 971. He also assured ADHE that the subsequent Bachelor's degrees, which were named in the Act, would follow the normal procedures for program approval in the state. ADHE responded that since the first degree had been enacted into law that they did not have a role to play in the approval and development processes.

CHAPTER FIVE

THE EMPLOYER

The Employer is the Vice President of Personnel for Baldor Electric in Fort Smith, Arkansas. Baldor Electric is one of the larger manufacturing employers in the Fort Smith area (Figure 5.1). He has been involved with the Education Subcommittee of the Manufacturing Executives Association for nearly 20 years. During this time, he contributed to the establishment of Westark College's Bachelor of Manufacturing Technology degree. The voice in the following vignette is that of the Employer.

Figure 5.1

Fort Smith Largest Manufacturing Employers March 2000

Employer	Number of employees
Whirlpool Corporation	4,575
OK Industries	4,500
Baldor Electric	1,711
Rheem Manufacturing Company	1,651
Riverside Furniture Corporation	1,325
The Trane Company	850
Gerber Products	651
Air Systems Inc./Fed Coach	550
Fort James Corporation	350
Planters Peanuts Company	275

The Employer was born and raised in Nebraska and completed a Bachelor's degree in Business Administration from the University of Nebraska. After a short stint working for an insurance company, he started his career in manufacturing in 1968. His first manufacturing industry position was in human resources where he served as personnel manager for a plant of about 1,000 people.

In 1975, he accepted a position in the corporate office of Monroe Auto Equipment Company in Monroe, Michigan. His title was Corporate Employee Relations Manager and his responsibilities covered the companies four facilities: three in the United States and one in Canada. About a year later, his supervisor left, and he was promoted to Director of Human Resources. He worked for Monroe Auto until July 1979 when Baldor Electric hired him to create a personnel function. Baldor Electric is the largest manufacturer of electric motors in the United States and is headquartered in Fort Smith, Arkansas with satellite plants in different locations around the South and Midwest.

He spent his first five years at Baldor creating a personnel function for the company, which included handbooks, consistent policies and procedures, and an infrastructure where there would be consistency on application of rules and employee relations activities. In 1990, he completed a double master's degree with two majors: Management and Human Resource Development. In both 1998 and 1999, *Fortune Magazine* rated Baldor as one of the Top 100 companies to work for in the United States.

The Employer first became involved with the Manufacturers Executive Association (MEA) several years ago when the former president of Baldor invited him to attend a meeting of the group. The President found that every time he would attend a meeting where educational needs were discussed, the majority of the problems occurred in the human resources area. Eventually, the Employer became Baldor's representative at these meetings. The educational focus of the MEA spun off into an ad hoc group that eventually evolved into what is presently called the Education Subcommittee. The Employer is currently the only human resource manager involved with the subcommittee. The majority of the other members are plant managers, or operations managers. The Employer just finished serving as the Chair of the Education Subcommittee.

Following the creation of the Education Subcommittee, the MEA decided that it was important to invite a representative from Westark College to participate. Westark had always been interested in providing training for the MEA companies, as well as preparing adults and high school graduates for employment in industry. One of the first collaborative activities between the MEA and Westark was when Westark hired a full-time instructor to provide training for MEA companies. Later, the High School District hired a person to develop a Tech-Prep program with Westark and local companies. The MEA Education Subcommittee believed that these programs would strengthen the quality of the local workforce.

In the early 1990s, the Education Subcommittee began discussing the idea of a supervisory training program. A couple of the members had already developed

supervisory training programs on a contract basis with Westark, and they seemed to be working. Therefore, the subcommittee decided that they would encourage Westark to develop a similar program for the entire local manufacturing industry. From these discussions, a Workforce Leadership Certificate Program was created.

Working with officials from Westark College, the subcommittee created a program that covered skills related to supervision in the manufacturing industry. The program was then customized to the extent that the individuals representing the different companies would have to achieve learning outcomes specific to their company. The program also was designed so supervisors from different companies could get together and work on projects, thereby learning from the interaction with colleagues within the industry. Furthermore, many of the supervisors, and potential supervisors, were not comfortable in a college setting. Most of the supervisors were older adults, and many had not had previous academic experiences. The Education Subcommittee hoped that having these students attend a college class with their peers would be less threatening. In its first year, MEA companies enrolled over 60 supervisors.

In the middle of the first year of the program, the MEA discovered that the State of Arkansas would reimburse companies for this “incumbent worker retraining.” Each company had two-thirds of their tuition cost reimbursed by the State. When word got out about this reimbursement program, companies increasingly began enrolling their employees. Companies began sending non-supervisory staff.

Certain small businesses enrolled their entire workforce. Soon there were several hundred workers enrolled in the Workforce Leadership Certificate Program.

The employers soon found that the majority of the students were comfortable with the certificate program and were enjoying the learning. Many of the students who completed the certificate wanted to continue learning, and began wondering what they could sign up for next. They were applying these new skills at their jobs and finding that they were more productive, while in some cases not having to work quite as hard. For example, it was common for students to become computer literate through the program, and then use their newly developed computer skills as an organizational tool on the job.

Having once completed the certificate program, some students went on to work on an associate degree at Westark. However, other students seemed to want to continue learning in the same fashion provided by the certificate program. To help meet this interest, Westark developed the Workforce Leadership II Certificate. Again, the employers enrolled large numbers of students in this program.

As the students were completing Workforce Leadership II, again, encouraged by their success in this college program, they wanted to continue their education. Westark started to realize that these students were spending an equivalent amount of time in class to a typical associate degree student. Furthermore, students began asking to have their certificate program transcribed toward an associate degree. It became apparent that Westark was developing something that was quite different from any other program available in Arkansas. Since this program had

been developed outside the realm of the traditional associate degree, Westark and the MEA began considering an alternative degree program. They wanted the program to be an extension of the two certificate programs, and different from Westark's associate degree programs. It was at this point that the idea of Westark offering the Bachelor of Manufacturing Technology degree began to emerge.

Soon it became apparent that Westark was going to pursue gaining the authority to offer the Bachelor of Manufacturing Technology degree. Westark and the MEA realized that they would need to form a strong partnership to be able to eventually realize this new direction. The MEA agreed to help Westark lobby the legislature, advise in the development of the program, and most importantly insure there would be jobs for the students that would graduate from the program. Through their collaborative effort, Westark and the MEA believed they could create a new program that would fulfill an important need within the Fort Smith manufacturing industry. A planning process was initiated to develop a proposal for the legislature, and to establish the competencies for the program.

A consultant was brought in from Texas to lead the Education Subcommittee through a DACOM planning process. The committee met with the consultant in a one-day retreat. Partway through the day, the committee clearly did not feel that the consultant understood what they were trying to accomplish. It seemed that he was trying to guide those present in a different direction and toward a different product than they wanted. The consultant had not done adequate research to develop an understanding of the unique interests of those assembled. In

an effort to calm the committee and to get back on track, the Administrator took control of the session. From this point on he “skillfully” helped the committee identify the competencies and structure they wanted in the new baccalaureate program. The Administrator then completed the DACOM process, wrote up the proposal for the legislature, and began organizing the structure of the baccalaureate program.

There were a few meetings following up on the planning session, where Westark officials asked for feedback from the subcommittee on drafts of the competencies for the program. Once the competencies were agreed on, the committee relinquished the fine-tuning to the Westark Administrator and his staff.

The Employer currently has three employees in the baccalaureate program. None of these employees previously participated in either Westark’s Workforce Leadership I or II. Baldor is reimbursing these employees for their tuition; due to a shift in spending priorities the State of Arkansas has discontinued the employer reimbursement. Baldor did not select the employees for the program. These individuals heard about the new program through connections within the Fort Smith community, scheduled a pre-application interview at Westark, and decided to apply for admission. Once they were admitted, the employees petitioned the Employer’s office for tuition reimbursement. Since Baldor has a policy of supporting the continuing education of its employees, the tuition reimbursement was granted.

Both the students and the Employer have been involved with the evaluation of the baccalaureate program. Each time a module is completed each student was

asked to provide feedback, both in the form of a questionnaire and general comments. Periodically, the Administrator visits the sponsoring company to inquire whether the employer is seeing any benefit. The employer evaluation is much more informal than the student evaluation and relies completely on antidotal information. Currently, two of the three employees have been promoted to positions of greater responsibility, since they began the baccalaureate program.

Several Baldor employees were interested in the program. However, many Baldor employees were concerned that they may complete the program then move and find out that the degree is not meaningful to employers outside of Fort Smith. The Employer believes that it is the company's responsibility to counsel those who are interested to make sure they understand that that there will be no guarantee. On the other hand, he believes that if they move to another area and continue to work in manufacturing that the degree will probably be of value.

Finally, the employer believes that one of the challenges still facing the program is the integration of high school graduates. This was one of the challenges that came out of the DACOM planning process that has yet to be confronted. MEA companies have not traditionally hired 21- or 22-year-olds to be supervisors. Therefore, it may be difficult to convince high school graduates to enroll in the program. The MEA is committed to promoting young persons that complete the Bachelor of Manufacturing Technology degree more quickly within the organization. However, they will still need to spend time working on the factory floor.

These people will need to learn first hand about the company process and product before they are promoted.

CHAPTER SIX

THE SENATOR

The Senator represents four Northwestern Arkansas counties.

His office is in Van Buren Arkansas, on the opposite bank of the Arkansas River from Fort Smith. Although he does not represent Fort Smith directly, he has a long history of supporting Westark College. More of his constituents attend Westark College than any other institution of higher education. He cosponsored the legislation that authorized the Bachelor of Manufacturing Technology degree. The following is his description of that process.

The Senator started attending college in Fayetteville in 1968 at the University of Arkansas. He began law school in 1972, and in 1975 received his jurist doctorate from the University of Arkansas at Fayetteville. In August of 1975, he established a law practice in Van Buren, Arkansas, which is directly across the Arkansas River from Fort Smith. He decided to seek office in 1984, when the incumbent state senator from the Van Buren area made the decision to retire. He was elected to the Arkansas Senate in November 1984, where he has served since January 1985.

The Senator was born in southeast Arkansas, in a small town called Hamburg, with a population of around 2,800. Hamburg is in an area that is known

as the “Arkansas Delta.” He has subsequently lived in the west and northwest area of the state ever since, which is the area where Westark College is located.

Throughout his time in the legislature, the Senator has “always” assisted Westark College with programs that he believed were beneficial to the community. His senatorial district is comprised of all or part of four different counties. His constituents were young people and adults, and some of both groups were going back to pursue a college education or additional training. More of his constituents attend Westark College than all other institutions of higher education in Arkansas or elsewhere. Therefore, he has always felt that Westark was an extremely valuable resource for the area. However, Westark is not within the boundaries of the four counties he represents.

Prior to the establishment of the Bachelor of Manufacturing Technology degree program, Westark had previously been successful in formulating the University Center. The University Center brings degree programs from other Arkansas Colleges and Universities to the Westark campus. The Senator felt that the new degree program further expanded on this concept and therefore improved the quality of the technical training available to the people within the Greater Fort Smith area.

The President of Westark has “always” been willing to look at new and innovative programs. He is “willing” to do things a little differently, sometimes not to the joy of his faculty. However, he is “willing” to take chances. It was clear that

the President and his administrative team saw this as an opportunity to create something unique for Arkansas.

The leadership for the development of the Bachelor of Manufacturing Technology degree came from both the Administration at Westark and the leadership of the Manufacturing Executives Association. Various meetings were held with MEA officials, Westark officials, the Senator, and other legislators from throughout Arkansas. These meetings were designed to consider how to implement the plan for the degree, since the plan had already been written. Then the Senator's office and the office of the Fort Smith member of the House of Representatives working with the Westark Administrator, crafted the legislation that would eventually become law.

The MEA has a lobbyist that works with both the Governor's office and the General Assembly. A Lobbyist also represents the community of Fort Smith and the Fort Smith Chamber of Commerce in conjunction with surrounding area chambers of commerce. These lobbyists combined their efforts to support the Westark legislation.

Moreover, each year the chambers of commerce sponsor a "huge" reception for the members of the General Assembly. It is an informal evening, essentially a chance for legislators to mix with local business leaders. Buses were chartered to provide legislators with transportation to and from the event. There has "always" been a "very high level" of attendance. The 1997 reception focused entirely on the Westark proposal. This demonstrated to the legislators that the proposal had strong

community support. Several members of the MEA traveled to the state capital to inform lawmakers about the proposal. It became clear that MEA wanted more than some “pie in the sky” kind of program. They wanted a program that gave their employees the real-world training that they desperately needed. Lawmakers were further impressed that the MEA members were willing to contribute their own resources to help Westark develop the program.

During the 1997 session, when the Westark baccalaureate legislation was introduced, there was some concern expressed by four-year institutions that Westark was “invading” their role and scope. There was further concern that if this were to be approved for Westark that other community colleges would want the same authority. Certain members of the legislature questioned whether the program was necessary. However, the proposal had the support of the Governor.

The Arkansas legislature only convenes once every two years. The session begins the third Monday in January of each odd year, and the Constitution only allows 60 days for the session. For 60 days every two years, which includes weekends and holidays, both the House and Senate frantically attempt to complete the States’ legislative business. However, if both the House and the Senate approve a resolution by two-thirds vote, the session can be extended beyond the 60-day period. In the recent past, this has always been done. It is “totally impossible” to complete even the budgetary matters, let alone the other substantive legislation, within that short period of time. Furthermore, in a 60-day session, there “might be 42 to 45 working days.” Even if the session is extended to,

for example, 100 days, there may still only be 70 working days. Regardless of the length of the session, the legislature usually has to deal with in excess of 2,000 bills.

The sponsors of the Westark bill were generally “well respected” within the General Assembly. The legislation they introduced was written with restrictions; the program would be a pilot that only Westark could develop and not any other community college within the state. The legislation attempted to create a degree program that would not compete with programs that were currently offered by four-year institutions in Arkansas. Moreover, at the time of this legislation, higher education was getting a lot of criticism for poor retention. For the sake of accountability, the legislation requires that the majority of the students who enter the program, must not only graduate, but also be employed in the manufacturing industry when they graduate. In other words, the program would be eliminated if it does not produce employed graduates.

Every piece of legislation that is of any significance takes on its own life sometimes positively and sometimes negatively. This legislation appeared to receive generally a good reception from the legislature. This was partly due to all of the education that was provided by all of the partners that have been mentioned. This included meeting with both the Governor and his staff. Time was also spent lining up additional sponsors. The sponsors included all of the Western Arkansas delegation.

It was also a session in which, for the first time, term limits were implemented within the House of Representatives. Approximately 55 percent of the House would be replaced at the next session. There were several major pieces of legislation that were introduced that session, purely because of term limits. In other words, legislators were less concerned about “political consequences.” The author of the bill in the House was chairman of the Joint Budget Committee and was considered one of the “experts” on public education in Arkansas, and had always been a good friend of higher education. He “always” made sure public education got their money first. Although, he was also going to be replaced by term limits, he had no trouble moving the legislation through the Budget committee on to the house floor where during the 1997 session it passed with ease.

Just as private industry needs to know the proper time to introduce a new product, a legislator needs to know when to introduce legislation. The Senator was the Chairman of the Rules Committee. He successfully introduced the legislation in the Rules Committee, instead of through the Senate Education Committee, where he feared opposition from higher education. At this time, the House of Representatives had already approved the legislation. The final “hurdle to cross” would be the approval of the Senate, since the Governor’s signature had been assured.

As the Chairman of the Rules Committee, the Senator had the responsibility of establishing the agenda for the Senate each day. This included when the Senate would convene, adjourn, and more importantly, what bills were going to be considered each day. Toward the end of the session, when the Senate was busy consid-

ering several bills, the Senator placed the baccalaureate bill on the calendar. He did not think that the Senate would be able to consider the legislation that day; however, at the very end of the day, when the Senate was getting restless in anticipation of adjournment, he decided to bring the bill to the floor for a vote. Any member of the Senate can propose a motion to adjourn, but the courtesy in Arkansas is to allow the Chair of the Rules Committee to make this determination. Therefore, the prevailing attitude on the floor was to get to the Westark Bill so that the day would finally end.

The bill was introduced on the full Senate floor. Following a concise review of the legislation, the Senator called for a vote, and the bill passed unanimously. The outcome may have been different had the bill been the first agenda item that day and had the legislators been “fresh and feisty.” Senators from Fayetteville, Jonesboro or Little Rock, representing areas with four-year institutions, might have been more inclined to criticize the bill if it had been brought to the floor at another time.

In the beginning, the Senator was concerned that the Arkansas Department of Education and Higher Education would strongly resist the legislation. Although there were some reservations expressed, it really was not as difficult as he initially thought it might be. There were no lobbyists overtly encouraging legislators to vote against the bill. As far as the Department of Higher Education was concerned, it would be difficult for an agency within the executive branch of the government to fight very hard against a program that the Governor favored.

Along with establishing the Westark baccalaureate program, the Senator had to be concerned about funding for higher education. Fortunately, during the 1990s, Arkansas was been fortunate to have increasing tax resources without tax rate increases. The state's economic growth had been strong. However, it was still a "tough" process to look three years into the future and say precisely how much money government will have and precisely how it is going to be spent.

Arkansas public education receives 70 cents out of every tax dollar collected, although Arkansas does not have a large amount of resources. These monies are shared between K-12 and higher education.

The Arkansas legislature created the "revenue stabilization act" to handle categorized appropriation priorities. Category A funds are guaranteed. Category B dollars will likely be funded. Category C will probably not be funded.

For example, if ABC Agency receives a hundred-million-dollar appropriation during a fiscal year, the legislature may put 60 million of that in Category A, 10 million in category B, and the other 30 million in Category C.

In Arkansas, there is a huge difference between appropriation and funding. For instance, the legislature can appropriate 1.2 billion dollars for Higher Education; however, the appropriation is not funded until the last week of the session when the legislature allocates funds under revenue stabilization. In recent years only about 65 to 70 percent of the Higher Education appropriation has been funded.

The legislature determines the funding percentages for each category, across the board. For example, if Category A is funded at 65 percent, this will be 65 percent for both the University of Arkansas and for Westark College. The Department of Finance and Administration provides the legislature with a revenue forecast that is used to determine the funding percentages for each category. Therefore, the prospect of funding Category B and C improve with a robust funding forecast.

Revenue forecasts occur between legislative sessions. The Revenue Stabilization Act grants the director of the Department of Finance and Administration with the authority to adjust the funding based upon changes in the forecast. Therefore, the funding for appropriations can be adjusted between legislative sessions.

Four-year schools receive a higher Full-Time-Equivalency (FTE) reimbursement than two-year schools. To help the University Center cover expenses, the partnering universities have contributed some of their FTE reimbursement to Westark College. However, since the Bachelor of Manufacturing Technology degree is a Westark College program, it will be reimbursed at the lower community college FTE rate. Therefore, it is unlikely this program will receive supplemental state funding.

Finally, since the authorizing legislation passed, there had been no other Arkansas community colleges asking for approval to begin offering baccalaureate programs. Perhaps in the future, if the Westark program has been “proven” successful, a growing community college with strong involvement with business and industry may be allowed to try this model. For now, other community colleges are

waiting to see how Westark's Bachelor of Manufacturing Technology degree matures.

CHAPTER SEVEN

THE INSTRUCTOR

The Instructor is the Director of Human Resources for Riverside Furniture Corporation in Fort Smith. He is both a part-time instructor and lab monitor in the Bachelor of Manufacturing Technology degree. Along with sponsoring students currently in the program, he has been involved with creating the curricula for the Human Resource modules. He relates his story from the perspective of both the manufacturing industry and Westark College.

The Instructor's employer, Riverside Furniture Corporation, manufacturers household furniture made out of wood presently employs about 1,400 employees and produces approximately \$100 million in gross sales per year. His background is in the human resources field, primarily in the manufacturing industry. He has an Associate Degree from Westark Community College, Bachelor's Degree in Business Administration from Tulsa University and an MBA from the University of Arkansas.

The Instructor started his career in personnel at Whirlpool Corporation, which is headquartered in Fort Smith. He then moved to Conway, Arkansas, which is about 100 miles southwest of Fort Smith. In Conway, he worked for three years as the personnel manager for a company that manufactures vending machines. He

then moved back to Fort Smith, which is his home, and has been at Riverside ever since.

His first job at Riverside was Safety Director, which reported to Personnel. Gradually he was able to get involved with the hiring process, and his job was changed from Safety Director to Personnel Manager. Eventually he was promoted to Director of Human Resources. Currently, the Instructor, along with nine employees, oversees Riverside's entire Human Resources function.

The Instructor has taught Human Resource Management and Leadership at Westark off and on for several years. He first became involved with the Bachelor of Manufacturing Technology degree a few years ago when he was asked to serve on a committee to help put together the Human Resource modules for the program. He has also helped establish criteria and guidelines for all of the modules in the leadership foundation.

For years his company had been frustrated when hiring a college graduate with a degree in business or engineering, the person usually did not work out in management positions on the plant floor. Riverside discovered that a lot was missing in the coursework for those degrees, which resulted in significant and costly on-the-job training. Unfortunately, the on-the-job training usually did not work out. The college-educated employee would usually become frustrated and leave the company. Alternatively, the company would dismiss the college-educated employee. The company found that these degrees did not have coursework that was directly related to manufacturing.

The Instructor's company began considering how they might train talented individuals within the company for management positions on the plant floor. It soon became apparent that there were no college programs available to help fill this need. The company questioned the high cost of tuition and fees related to the cost of educating their employees, when they were having a difficult time seeing the payback. This was a problem shared by the membership of the Manufacturing Executive Association.

Out of frustration, the MEA decided that they needed to create a degree specific to their needs. The initial idea was a program that would bring an individual working in MEA organizations into a degree program from which they would learn the specific skills that they needed.

Meanwhile, Westark College had contacted many business leaders in Fort Smith to discuss the very same idea. Before the Instructor even knew about it, Westark had "sold the MEA on a new degree that would be tied to the manufacturing industry and that would provide direct payback." The program would take students that in most cases were already working for MEA companies and teach the technical and people skills they need to advance through the organization. Furthermore, Westark said the process would be accelerated.

One of the biggest problems in the Fort Smith manufacturing industry is finding good leaders — people desiring to be in a leadership role. Most people do not want the "hassle" that goes along with leadership. Leaders are the ones that are there after hours and on weekends and are in general willing to take on additional

responsibility. Many people, especially in manufacturing, do not care for that time commitment. They want to come to work, do their job with as little hassle as possible during the day, and then go home.

However, employees who want to be leaders in the organization need to have certain skills and background. Furthermore, a “good” leader takes a long time to develop. It is not something that people naturally know how to do. In manufacturing, a leader needs to learn the technical end of the business. It can take a new employee “a good two years” to gain this knowledge. Then the employee needs to have “strong people skills” to complement the technical requirement.

The Bachelor of Manufacturing Technology degree program helps accelerate the process of developing the necessary technical and people skills. The members of the MEA are paying to have their employees go through this program. To the credit of the program, the companies are beginning to see a “direct payback” from the dollars they are investing in these students. It is apparent to the employers that the program is very extensive and that students are becoming well versed in many different areas related to manufacturing. The students are gaining technical skills and “people skills.” The program is helping accelerate the process of training employees that want to take on the added responsibilities related to leadership in a manufacturing company.

The manufacturing industry has changed dramatically over the last five to ten years. Business is struggling to keep pace with the rapid pace of change. For example, 20 years ago, when Riverside Furniture would market a new product, it

was probably the only producer of that product for at least one year to 18 months. Today, when Riverside puts out a new design, it will have been duplicated by the competition within 30 days. Technology has made it easier for the competition to copy what Riverside produces.

In general, the technology required for furniture manufacturing is changing so fast that it is becoming increasingly difficult for Riverside to keep up. Since Riverside has to be on the cutting edge to remain competitive, they have no other choice than to continually invest in technological innovations. However, there is currently a “disconnect” between the rapid rate of change and number of people with the technical skills to help companies adapt. Without an adaptable workforce, a manufacturing company is not going to survive. The leadership module in the Bachelor of Manufacturing Technology degree program teaches important skills and attitudes related to adaptability.

The MEA members will support those employees that are “bright, show initiative, have a good attitude,” and that are doing well in their current positions. After looking at a large cross section of employees, a company decides what employees have the potential for advancement. Then the company will put these employees into managerial training. This is a continual process, since there is always a need.

An individual that goes through this process will be expected to put out a lot of effort, especially since the company will be picking up the tab. There is also a public relations standpoint to this process. The employee will feel like, “Hey, this

company thinks I'm important." Therefore, the training benefits both the employee and the company. The only time that Riverside Furniture goes outside of the organization for a new hire is when they cannot find someone internally to fill that particular job. Riverside approaches potential middle management candidates individually. Usually, when asked, the person offered the opportunity to work into a leadership position accepts. However, because of the amount of work involved, there is roughly a 50 percent dropout rate before getting very far into the training. Due to the expense, all of this weeding out occurs before an employee is given company support for the Bachelor of Manufacturing Technology degree.

One potential problem with the program is that a company-sponsored employee can accept a position at another company during the training, or once the training has been completed. The MEA believes that the investment is still worthwhile, simply because the aggregate is supporting this program for the Fort Smith manufacturing industry. They believe that, down the road, when there will have been several graduates from the program, each company may lose a few supervisors in this fashion. However, they also believe that each company may gain a few supervisors as the result of these workers in transition. Furthermore, the MEA believes that this will not be too severe of a problem, simply because the transitional worker will not be immediately ready to move into plant supervision at the new company. Since the program is individualized, the students will have applied the knowledge gained through the coursework to the needs of their company sponsor. Although there are similarities between manufacturing companies, there

are also differences. For instance, some companies pay higher wages than others do. Therefore, the difference in pay scale within the Fort Smith manufacturing industry may be incentive enough for certain employees to sacrifice a higher level position for the long term potential of a more lucrative paycheck.

This program is in the infancy stage and most of the students are working on the leadership foundation. The Instructor is currently developing some of the managerial and human resource modules.

The Instructor is a very practical teacher. He tries to make his classes as real as possible, because he is teaching about what he has to deal with everyday. Furthermore, he has spent considerable time in court dealing with personnel problems that have developed on the plant floor. The least enjoyable part of his job is having an attorney “grill” him on the witness stand. Therefore, it is in his direct interest to teach managers and supervisors how to avoid the pitfalls that can lead to a lawsuit. Furthermore, these lawsuits can lead to government agency audits, which are very time consuming and costly for the company. Without question, most company lawsuits develop on the front line of the plant, because that is where most of the day-to-day people contact occurs.

Manufacturing companies have more legal problems on the plant floor than anywhere else in the organization. A legal problem can develop when something is simply said inadvertently, or a policy was not followed correctly or consistently, or if the policy infringes upon somebody’s legal rights. The Instructor tells his students that once they get into a supervisory role, 75 percent of the success they

have had to that point was probably based upon technical skills. However, he continues, "From here on out, your success is dependent upon your people skills." In other words, 75 percent of a student's future success will be based upon "people skills." Therefore, the focus changes from production to dealing with people on a day-to-day basis.

Some of the competencies in the human resources modules cover the legal aspects to supervision. A supervisor deals with labor law every day out on the floor. What the supervisor says or does can make a huge difference to the organization. This does not mean that the supervisor needs to be an expert in labor laws. However, the supervisor does need to have a broad understanding of such legal issues as sexual harassment, the Americans with Disabilities Act, and the Family Medical Leave Act, for instance. The supervisor should understand unions and potential union problems. The supervisor has to deal with employees on a day-to-day basis. For instance, the supervisor needs to enforce attendance policy and understand how an employee can inadvertently be the subject of discrimination. Moreover, a supervisor needs to recognize trouble and know when to ask for help.

Currently the Instructor is monitoring the study lab, helping students work through the self-paced modules. He will begin classroom training when students begin working through the leadership modules that he is currently helping to develop.

One of the responsibilities of the lab monitor is to administer exams. For instance, a student may look at the module related to a set of computer skills and

see that they use those skills all the time. The student can then simply walk into the lab, request to take the test, the lab monitor administers the test, and if the student passes, the instructor responsible for the module will record the results and then the module will be completed.

Another responsibility of the lab monitor is to provide counsel to the students. For example, the monitor will sit down with a group of students to help them create a schedule for completing each module. Since all of the students are full-time employees, and work a variety of schedules, the access to the lab required by each student is spread all over the calendar. Consequently, the lab monitors also have to be creative with their scheduling. In essence, student contact with the lab monitor is negotiated.

The tests for each module are part demonstration and part written. The demonstration portion of the test has objective grading criteria, and the Instructor grades the written portion subjectively. The testing is used to demonstrate that the competencies for each module have been mastered. For example, in the computer modules a student will have to demonstrate knowledge of certain software applications. The student will also have to demonstrate an understanding of how those software applications relate to the manufacturing workplace. The written assessment will cover the latter competency.

For the same computer module, the objective assessment will be “closed book,” since the student will have to demonstrate on the spot how to use the specified software. However, the written portion of the assessment is often an “open

book” assignment. Students are allowed to retake the assessment up to two more times. In order to pass a module the student must score at least 80 percent on both the objective and subjective assessment. If the score is below 80 percent, the student can retake the examination, which has happened. If the student fails the assessment for a third time, the student will then be asked to leave the program. This has yet to occur. On the average, each examination takes between two to three hours. Furthermore, on the average, it takes students between five weeks and two months to work through a module. A student can work on several modules concurrently.

Finally, this program is going to continue to evolve. For instance, five years from now the technical skills are going to be different. Moreover, the Instructor hopes to see more young people coming into the program, right out of high school. In the future, he wants to use the program as a place to recruit new employees. He believes that these future students are going to be prime candidates for Riverside Furniture to hire on management tract for promotion within the organization.

CHAPTER EIGHT

THE STUDENT

The Student just completed the leadership foundation, related transfer activity, and at the time of the interview was taking a break from her studies. She previously completed Westark's Workforce Leadership I and II certificates. Hiram Walker was her employer when she entered the program; however, she switched employer's midway through the foundation. Her current employer is Staffmark, a staffing service, and she specializes in providing staffing for manufacturing companies. The following is her story.

At 32 years of age, the Student has been working in manufacturing for 11 years, or since she was 21. For the past nine months, Staffmark has employed her. Prior to that, her employer was Hiram Walker. She is the mother of two and the "caregiver" of three, four if you count her husband. She works full time in management, and in her free time attends the baccalaureate program at Westark. For recreation, she occasionally finds time to play golf or go bowling. She is very busy. Prior to enrolling in the Bachelor of Manufacturing Technology degree program she was "seven classes short of an associate degree" from Westark College.

Hiram Walker is made up of a web of companies that are owned by one “umbrella corporation” out of England. Each of the companies is operated as an independent business. The Fort Smith plant bottles spirits that are primarily produced in Canada. However, the company occasionally purchases a bulk supply from a distillery in Mexico. The Student’s last position at Hiram Walker was as a production planner for the “specialty pack operation.” After the “mother product” was made, the “specialty pack operation” would produce gift sets. She was in charge of this operation, and she was in charge of some of the satellite bottling at a dairy in New York State where the cream for the little 200 milliliter bottles of Kahlua was produced.

Hiram Walker enrolled all of the management team in the certificate program to learn about team building. Hiram Walker was trying to change from a “hierarchy-type” management system into a system that relies on “self-directed work teams.” They were hoping this would force some accountability down at the plant-floor level. The Student was one of the managers they thought would benefit from this training.

When the baccalaureate program was initially considered, students that had participated in the leadership certificate program were asked to comment on what they would like to see in the program. Then, at various stages during the development of the program, some of these same students were asked to give feedback on what was taking shape. Since the Student had completed the certificate program, she was among those asked to participate in this process.

The student now works for Staffmark, which is a staffing service. Her current position is on-site manager. Her role is primarily to work at client companies as a “portable” human resources department for that company. Most manufacturing companies rely heavily on supplemental services. A large portion of their business is farmed out to temporary people. They will never actually hire these people as permanent employees, but their business depends on these employees. Companies view these employees just like any raw material that is necessary to keep the business operating. However, it is not cost-effective to offer permanent full-time positions with fringe benefits.

The benefit of an on-site program is a comparatively higher quality of life compared to what is offered by most supplemental staffing services. The Student offers these employees a program similar to what the clients offer their full-time employees. She helps develop a program with a different pay structure, with a different benefit structure, but one that is better than working through most staffing services. Staffmark offers medical, dental, short-term disability, and life insurance, and covers workers compensation.

Most staffing services do not provide stable or dependable employment. What the Student tries to do is create some stability for the employee by working to make sure that a job will always be there. She works with the client to develop an employment profile. She screens her employees to find individuals that will fit the profile for each job. Once placed, she works with the employees as a counselor, mentor, and trainer, in an effort to ensure a better workforce for the client.

The reason the student accepted this position was to round out her resume. She wanted to add human resource experience to her manufacturing background. The other reason she agreed to work for Staffmark was she was offered the chance to create full-time employment and job stability for people. In general, she strongly believed that staffing services should be illegal—or if a company needs that body person that company ought to be responsible for that person. With the exception of her current position, she believes that Staffmark is just like all of the other staffing services. She really does not like her current job, but is “hanging in there” to gain the human resources experience.

Prior to Staffmark, her manufacturing management experience had primarily focused on production. She felt she was more “analytical and task focused.” She did not believe that she had strong “people skills.” Her current position is helping to round out this aspect of her management portfolio. She is very interested in getting back into manufacturing plant management and is currently talking with a few manufacturers about this possibility.

Before enrolling in the Bachelor of Manufacturing Technology program to pursue a degree, the Student considered the business degrees offered through University Center. However, her experience with the graduates from these programs was that they were often no more competent than the person off the street without the education. They did not know the industry and had no “hands-on” experience. Furthermore, they were usually not willing to work through the ranks to gain this

experience. Without having worked on a shop floor, they could not know how front line workers think; therefore, they were not qualified to be supervisors.

The Student entered the program October 1999, and had just recently completed the leadership foundation, which is the first foundation of the program. Following a break, she will begin working through the second foundation. Therefore, she is currently about a quarter of the way through the program. Since she had completed the workforce leadership certificates while still employed by Hiram Walker, she was able to test out of many of the modules in the first foundation. This was done without any further cost to her or her employer. Although she had this previous experience, with both the certificate program and nearly completing her associate's degree, she did peruse the coursework prior to taking each test. She wanted to make sure she would not be missing any new knowledge.

The Student's time is very valuable. She has to work for a living and take care of a family. The ability to demonstrate she was competent in many areas, and get credit for that competency, was a "great concept" to her. Not having to sit through a class that might last three months, and meeting twice a week, and doing all of the homework when she could already "prove" she had the knowledge, saved her precious time.

The Student feels that the program primarily substantiated what she already knew through experience, while "rounding out her rough edges" by allowing her to gain new knowledge and skills. Therefore, it is a learning process and a confirmation of what she already knew. She believed she already understood about "60

percent of the curriculum” and is looking forward to the “40 percent” she has yet to learn.

The program has already helped the Student. She has been able to implement on-the-job new skills she has learned in the first foundation. She thinks this method of learning will stay with her, simply because of the direct application to her work. For example, from the module on conflict management, she applied what she learned while working with her first client at Staffmark. This client was a union shop, which for her was uncharted territory. The tools that she learned in the module on unions were very useful. She learned to discard her traditional manufacturing supervisory approach of “Thou shalt do this, or thou shalt be fired.” She learned how to actually make employees feel valuable, while getting a commitment from them to work hard for the company. Furthermore, she applied what she learned to mediate conflict.

The student is currently on a two-month hiatus from the program. She convinced her instructors and the administration that she needed this time off. Including the time she spent in the certificate program, she had been attending school for the past year and a half without a break. Since she was the first student to request a break, this became “uncharted territory” for the program, another example of the “evolutionary nature” of this degree. The length of the break was based upon the two-month average length of time needed to complete a module. Unlike a “traditional degree” program, where summer term is usually optional, this program was designed so students could work continuously until completed. She gave the

program an ultimatum that either she would be given a break or she would quit. She wanted a little more time for herself and her family.

When she continues in the program, the student will be entering a realm of learning to which she has not previously been exposed. The next foundation is going to be more of a challenge, since it will cover competencies that were not a part of the leadership certificate program. She will need to “stay focused,” which she finds to be an issue, considering the challenges of her responsibility to family and work, in addition to school.

As she embarks upon new territory, she is concerned about structure. Will she be better off with more structure, or will she be successful working at her own pace? In the beginning, she thought that she would enjoy working at her own pace. However, as time went on, that call inviting her to play golf was sometimes heeded, when she knew she needed to be doing homework. She is considering working on her discipline.

Typically, when she is having difficulty balancing everything, she will turn to one of the instructors, or even the administrator of the program for support. She finds the staff at Westark to be personable, dedicated, and interested in her success. “They would do anything to keep [her] from quitting the program;” for example, allowing her to take a break.

Although she has her worries, the Student is, for the most part, happy with the program. She especially likes that the learning is so focussed on her career path. For instance, she appreciates that the history she learns in the program is

related to management thought and practices related to manufacturing. Her goal at this point is not learning about all of western civilization. Although she believes that a broad educational background is important, the Bachelor of Manufacturing Technology degree best fits her current needs. She plans to continue being a life-long learner and expects that once she finishes this program, and finishes raising her family, that she will return to school to broaden her knowledge of the world. She clearly enjoys learning.

The Student has grown very close to the people that were a part of her facilitated group (transfer activity). Her group was the first to go through a facilitated meeting. They worked on conflict management, interpersonal skills, and nonverbal communication, all a part of team building.

Some of the members of her group had completed the leadership certificate program prior to this program, so they were already acquainted with one another. Therefore, her group had been working together for the past six months, and for some members longer. As a group, they have met on a regular basis to help one another complete the modules. She has found this support invaluable.

She thinks she has built relationships that will continue beyond the completion of the program. She now has a support network outside of her job. She can consult with cohort members about delicate situations at her job, and they provide her with “knowledgeable and objective feedback.” She stays in touch with her fellow students through e-mail, by the telephone, or by getting together for lunch or

coffee, although she prefers email, since she is computer literate and enjoys writing. These communication channels were being used on a regular basis.

The Student's group is quite spirited. Since they have a tendency to "joke around," to have fun while learning, they decided they needed a name. They chose to name their group, "The Losers." This name became a running joke between the group and one of the instructors. Whenever the students would give the particular instructor a hard time, he would respond by calling them, "a bunch of losers." This was all done in good fun. The student knows that she and her classmates are just the opposite of losers. In a strange way, this name has been good for the group, because it has helped them to have fun while growing in their careers.

CHAPTER NINE

THE ACCREDITATION REPRESENTATIVE

The Accreditation Representative has been with the North Central Association of Colleges and Schools Commission on Institutions of Higher Education since 1980. In recent years he has been leading the discussions concerning the Community College Baccalaureate, the Applied Baccalaureate, and Competency certification and related instruction. This vignette is his description of how his agency wrestled with these complex issues when they were thrust into the forefront by Westark College's Bachelor of Manufacturing Technology degree.

The Accreditation Representative (the Representative) is the Executive Director of the North Central Association of Colleges and Schools Commission on Institutions of Higher Education (the Commission). He finished graduate school at the University of Wisconsin where he received both a master's degree and Doctorate in U.S. History. In the 1970s, he built a ten-year teaching career at five different institutions, largely doing sabbatical replacements, and primarily in the private sector. He has been with the Commission for the past 20 years. He was appointed Executive Director in August 1997.

The Commission accredits about 1,000 institutions in 19 states, stretching from West Virginia to Arizona, and has a long and historic reputation for being

open to educational innovation. Land-grant colleges, with the idea that one of the purposes of higher education is to get education to the common people, have shaped the Commission. Consequently, the Commission has been relatively sympathetic, some would say overly sympathetic, to the new and the different. For instance, the Commission moved into “for profit” colleges before all other accreditation agencies.

The Commission now has a staff of 32. They have been criticized for being too large; however, in the Representative’s opinion they are understaffed. Each one of the staff liaisons singularly handles more institutions than the Northwest Association (of which the Researcher’s college receives its accreditation). Furthermore, the Commission currently has a corps of about 980 “consultant-evaluators,” all volunteers. Historically, the Commission has emphasized training and using the corps with some real frequency. For example, a member just retired from the corps after completing 52 site visits. This has resulted in a loss of a tremendous amount of experience.

The Commission very seldom has to send staff to accompany a site-team. Moreover, the Commission places more credibility on a team visit and a team recommendation than on any other regional accrediting agency. The team literally says publicly what they intend to recommend before leaving the campus. The rest of the process then becomes the institutional response to that recommendation.

Most other regions want the recommendation to be private or confidential until the final decisions are made. Consequently, there are times that the

Commission has to publicly explain why a team's decision was not the final decision. However, because of the culture, most times the Commission chooses to follow the team's recommendation even if they would prefer to do something different.

Prior to Westark, the Commission had been involved in conversations about baccalaureate education at the community college. One of these conversations was in response to the community college baccalaureate proposal that was starting to evolve in Arizona. Arizona helped shape the Commission's recommendation for how to deal with Westark.

The Commission had been asked by the Arizona Board of Regents to comment on legislation considered by the state legislature. The legislation, if passed, would allow community colleges to offer applied baccalaureate programs. The Regents hoped that the Commission would ultimately say, "You can't be a community college and offer [a baccalaureate] degree." However, the Commission believed the issue had less to do with the community colleges mounting a potential baccalaureate, than with the inherent reconceptualization of the baccalaureate. That seemed to be of considerably greater significance than a single degree mounted at a community college. The reason for this is that, throughout the 1980s and into the 1990s, a whole series of private two-year institutions "slowly, but surely, changed into four-year schools." This frequently occurred a program at a time. The Commission never hesitated if they felt a college was ready to mount a specific program to extend the accreditation to the baccalaureate level, limiting it to that

single program. There are not a set of standards for associate-degree institutions and a set of standards for baccalaureate-degree institutions. Therefore, the Commission does not have to suddenly shift focus just because there is a single baccalaureate program.

The Commission was “very nervous” when Westark initially requested to have their accreditation extended to include the Bachelor of Manufacturing Technology degree program. What concerned the commission were the multiple precedents (community college baccalaureate, integrated general education, and self-paced competency-based curriculum) that would be established by the implementation and approval of this program. Moreover, the Commission “worried” about the “untested nature of almost every single one of these precedents.”

After meeting some of the people behind this new program, the Commission decided to provisionally extend Westark’s accreditation to include the baccalaureate program, based on the idea that “theoretically” it seemed like it should work.

In an effort to work through the multiple precedents, the Commission’s Board approved a unique arrangement for Westark. First, the Commission created an advisory team to advise both Westark and the Commission. Then, the Commission decided to postpone the ultimate decision on extending accreditation until “year four,” when the baccalaureate program would be wrapped into Westark’s next comprehensive visit. Finally, if the decision was made not to extend

accreditation to the baccalaureate, the Commission would still cover the graduates up to that point, so that their degree would have value.

The Commission formed and charged a five member team with creating a context for understanding and evaluating the Westark baccalaureate program. The Commission wanted to create a team that had experience dealing with the different issues. One of the team members had been a designer for Western Governors University, so had experience with a competency-based programs. Western Governors University had been established to issue college degrees through the certification of student mastered competencies, with partnering universities providing the curriculum and instruction. Another member had helped put together the Arizona Applied Science bachelor's degree program, which had been developed by the Arizona university system following Arizona's community colleges unsuccessful attempt to gain authority to offer applied baccalaureate programs. Another member was from the manufacturing department at Purdue. Two of the team members were from community colleges and the other two were from universities. The Commission decided that this was one of those exceptions where a staff person would be involved with the work of the consultant-evaluators. Therefore, a Commission staff member was added to the team.

The team found that Westark College's Bachelor of Manufacturing Technology degree "represented several distinct streams coming together in one program." These streams were the baccalaureate at a community college, the applied baccalaureate (integrated general education), and measuring competencies

as opposed to class time for credit hours. Through its work in Arizona, the Commission had already struggled with the design of a new kind of applied degree. Moreover, the commission had experience with competency-based measurement, as opposed to class time, for credit hours, through its work with the Western Governors' University.

After visiting Westark and becoming familiar with the Bachelor of Manufacturing Technology degree program, the accreditation team prepared a report for both the Commission and Westark. The intent of the report was to help Westark, and toward this end recommended "mid-planning and implementation perspectives" on the baccalaureate program. The Commission thought Westark should have been more familiar with the Western Governors University and what had occurred in Arizona, and felt the report would provide some of this grounding.

Western Governors University had invested significant sums of money to identify and measure competencies. However, unlike Westark's baccalaureate, Western Governors University has no curriculum, only domains, competencies to test, and no institution to support those competencies. The instruction is offered through partnering colleges and universities. The competencies that are measured in the Westark baccalaureate are embedded into the curriculum.

One of the things that the Westark program has attempted is to embed its general education requirement within the overarching technical courses. In other words, to define then integrate the competencies of general education into the modules of the baccalaureate program, rather than forcing students through a

specific series of general education courses. To this end, there is a major movement within various segments of higher education to start to redefine the nature of the educational experience, in essence, to break the stranglehold that departmentalization has had on how Americans have completed their education. For instance, by bridging academic departments these colleges are beginning to embed outcomes into different course experiences. However, in most state universities, the general education program is “owned by” the disciplines. This has often raised the question of whether the department is acting out of consideration for the general education requirement or for their share of the student. Furthermore, technical institutes and community colleges are finally beginning to say that they do not want to be victimized much longer by the “straitjacket of transfer.” Perhaps in the future colleges will “move” students by competencies that have been measured, rather than by courses they have experienced.

This new model implies that it is unimportant how a student obtains knowledge, as long as the knowledge can be demonstrated. The essential message is that society knows where it is going and wants a product that can demonstrate a student's knowledge or ability. Whether students can learn critical thinking in an English program or somewhere else is irrelevant. The assessment movement is forcing broader institutional faculty ownership of these competencies, which is a significant change.

The resulting product from embedding the general education requirement has not been tested. Increasingly sophisticated instruments will be developed if

more of these programs are established. There may even be some sharing of how different programs operate and how they were established.

Finally, many community colleges refer to the A.A.S. as not included in the academic program. The Commission is worried that the B.A.S. will be viewed in much the same way. However, the reality is that the A.A.S. is a respected degree, which should also be the case with the B.A.S. The B.A.S. has an important niche, however, how baccalaureate education helps prepare someone for this niche is exactly where the pressures reside.

CHAPTER TEN

SUMMARY: THEMES, ISSUES, AND CONCLUSION

Chapters Three through Nine of this study related the stories of key individuals involved with the development of the community college baccalaureate program at Westark College, in Fort Smith, Arkansas. Each vignette shares that individual's contributions and reflections concerning the Westark College baccalaureate program. In this chapter, the researcher reports the results of the data analysis, by exploring the similarities and the differences among the vignettes.

The development of the community college baccalaureate in the United States has been an emerging force first seen in 1976 [Call, 1997]. Since that time increasing interest in the degree has been reflected in the literature [Walker, 1997; Garmon, 1998; Walker, 1998a,b,c]. However, no common vocabulary has been established for discussing this emerging interest [Higher Learning Commission, 2001].

Three important themes were identified in this study as the data were synthesized through encapsulation, analysis, and rewriting. The first two themes were chosen because each met the following criteria: it emerged in most vignettes and had compelling importance to the development of the baccalaureate program at Westark College. The third theme was chosen because it emerged from the researcher's interpretation of the literature review in relation to most vignettes.

Finally, this chapter will discuss issues and conclusions based on researcher's reflection.

Theme One: Community Support Toward Community Need

There are over 200 manufacturers in the Greater Fort Smith Area that employ more than 30,000. Westark College traditionally has had a strong relationship with the manufacturing industry. The leadership for the development of the Bachelor of Manufacturing Technology degree came from both the Administration at Westark and the leadership of the Manufacturing Executives Association.

The Fashion Institute of Technology, Utah Valley College, Great Basin College, and University Colleges all had influential community support to add bachelor degree programs to their inventory of degree programs. Furthermore, all of the states where the community college baccalaureate is currently under consideration are responding to a perceived interest in access to applied baccalaureate programs [Garmon, 1998; Walker, 1998a,b,c]. In a similar fashion, the Westark Bachelor of Manufacturing Technology degree program was developed in response to, and with the support of, influences from throughout the Greater Fort Smith, Arkansas community [Evelyn, 1999; Trannehill & Conner, 2001].

With the exception of the accreditation agency, all of the vignettes describe a baccalaureate program that has been developed through a strong collaboration between Westark College and the Manufacturing Executives Association. Moreover, influential elected officials and several chambers of commerce were involved

with the establishment of this new program. Clearly, the Westark baccalaureate could not have happened without the strong partnership of these constituents.

Each vignette relates the integral involvement of the Fort Smith community. For instance, both the Employer and Instructor represented their companies as advisors in the development of the program. Furthermore, each of their companies enrolled students once the program had been established. Moreover, the membership lobbied legislators as the legislation was under consideration. The MEA's commitment to the baccalaureate program was in direct response to confidence in Westark's ability to meet significant workforce training needs. Furthermore, the Instructor, representing his employer, participated in the creation of the competencies, and as a part-time instructor has written curricula for the Leadership Foundation courses/components.

The Senator related how important Westark College had been to the four counties he represented, although none of the counties was within Westark's College District. He described a legislative process that involved the leadership at Westark College as well as the leadership of the powerful Manufacturing Executives Association with support from several northwestern Arkansas chambers of commerce. Furthermore, the Senator's influence as the Chair of the Rules Committee allowed the baccalaureate legislation to move to the Senate Floor for a vote. He timed the vote toward the end of a busy legislative day to maximize the chance for passage. However, the lobbying effort had been so complete, including support from the Governor, that it is doubtful he would have encountered strong resistance

at another time. It appears that the House approved the legislation with similar ease.

The Administrator demonstrated an ability to glean the salient employment needs of Fort Smith manufacturing companies, as well as the generally agreed upon general education requirements of the Westark Faculty. With this information, he crafted a curriculum that is intended to prepare students specifically for middle management positions within the Fort Smith manufacturing community. The ability to work with diverse constituencies, along with his background in outcome-based education, contributed to the development of the curriculum. Moreover, he facilitated the meetings to craft the legislation, and took the lead in recruiting, orienting, and supporting the students. His work illustrates Westark's strong commitment for meeting the needs of the local business community.

The Student representing her previous employer (prior to applying for admission into the program) was given an opportunity to comment on the purpose of the program as well as the competencies integrated in the program. Although her contribution was minor, it is noteworthy because of her early involvement as an employee demonstrates Westark College was serious about serving the needs of local industries. Later, as a member of the first group of students working through the program, the Student has provided valuable insight that should contribute to program improvements. In this regard, the Administrator, faculty and staff at Westark are willing to make adjustments that will improve students' chances for success in the program and at work. For instance, after the first year in the

program, when the Student was on the verge of dropping out, Westark changed the structure of the program in order to give this particular student a much-needed break. Westark understood that this was necessary in order for this new program to be successful. If necessary, future students will also have this opportunity.

Support developed by the college from a broad range of constituents and the goal of meeting community workforce needs are overarching themes throughout the development of this new program. Without this support and focus, the Westark College Bachelor of Manufacturing Technology degree program would not exist.

Theme Two: Alternative Delivery Model

The [regional accreditation] commission was concerned by the multiple precedents (community college baccalaureate, integrated general education, and self-paced competency based curriculum) that would be established by the implementation and approval of this program. Moreover, the Commission worried about the untested nature of almost every single one of these precedents.

As has been stated, the Westark College Bachelor of Manufacturing Technology degree program consists of a series of self-paced competency based modules that contain curricula integrating general education and industry standard competencies. This program delivery approach was attractive to each the

Administrator, Employer, Instructor, and the Student. The Senator was not interested in the structure of the program and curriculum beyond extending Westark's capacity to include the delivery of baccalaureate programs.

The Administrator had the appropriate background to contribute toward the development of the Westark baccalaureate program. He had been involved with competency-based education and manufacturing industry education for several years. In many respects he was the right person, at the right community college, at the right time. His involvement was without question a significant contribution toward the type of baccalaureate program that was eventually developed.

The Employer supported the program/curricular structure chosen by Westark because it provided an opportunity for his industry to have input toward the development of the competencies for the program. He was interested in a bachelor's degree program that would teach incumbent workers, and hopefully in the future high school graduates, the necessary knowledge, skills and behavior to be successful middle managers in the Fort Smith, Arkansas manufacturing industry. He had not been satisfied with how graduates from other baccalaureate programs had performed in these positions and was willing to support a new approach toward baccalaureate education.

The Instructor shared the Employers interest in the Westark program/curricular design. In addition to helping identify the manufacturing industry competencies, the Instructor was involved with writing certain curricula that not

only integrated these industry competencies but also integrated the general education competencies that had been identified by the Westark Faculty.

Although the Student was given the opportunity to provide feedback, both in response to the manufacturing industry competencies and as she progressed through the program, she was primarily interested in the baccalaureate program's flexibility and relevance to her profession. She found that it was far easier to find time to work through "self-paced" modules than to take a class based on "seat-time." Moreover, the Student appreciated that she could apply what she was learning directly to her daily activities as an employee.

Finally, Westark combining the community college baccalaureate, integrated general education, and self-paced competency based curriculum into one degree program concerned the accreditation agency. Although the agency had not been involved with the process leading to the establishment of the program, the final report of the on-site consultant-evaluators should help Westark deal with the transcription of completed modules. This in turn may help Westark articulate the baccalaureate program with other community colleges, colleges and universities. Furthermore, the accreditation agency's perspectives on the Westark program will influence any college considering Westark's approach (combining the community college baccalaureate, integrated general education, and self-paced competency based curriculum into one degree program) to baccalaureate education.

Theme Three: Is it Significant that Westark College has a Community College Baccalaureate Program?

Several community colleges in the United States currently offer baccalaureate programs.

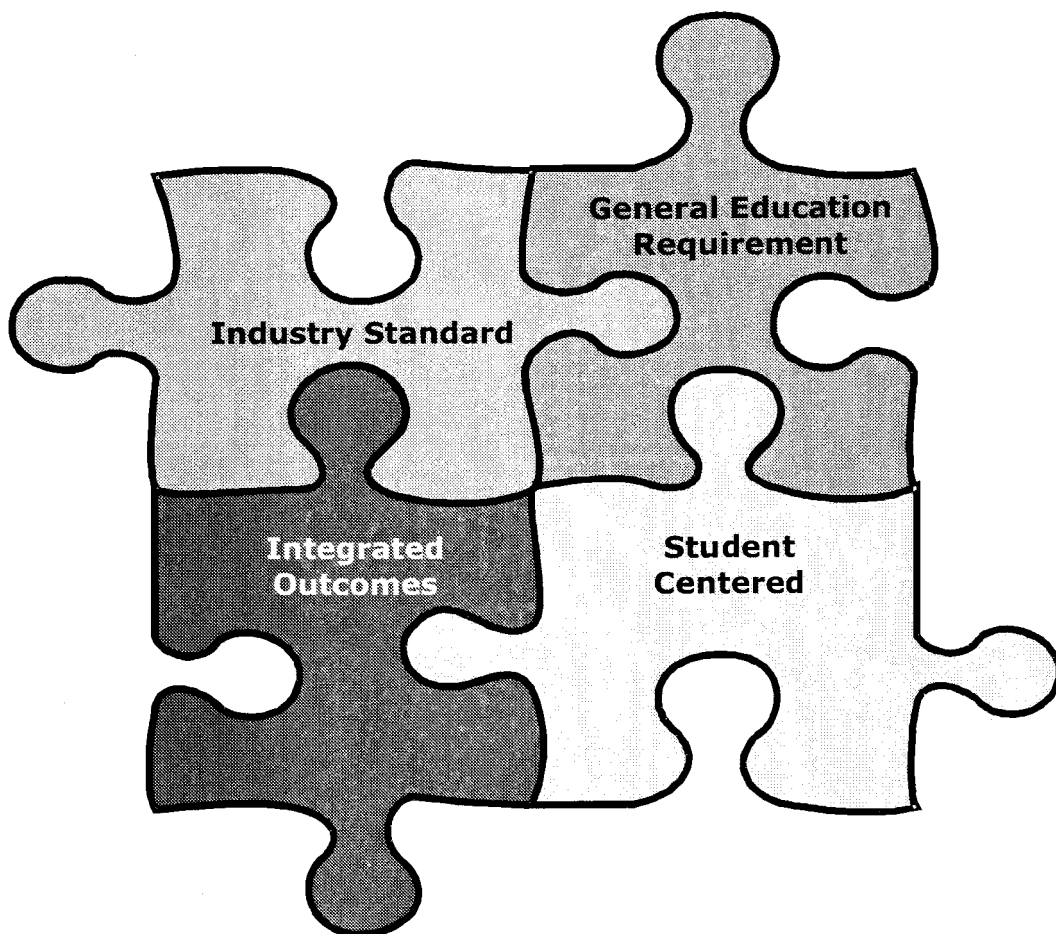
When this study was initiated, the researcher was primarily interested in the community college baccalaureate. As the researcher began to study the Westark program his interest changed from community college baccalaureate to the innovative methods Westark had used to develop its program and curricula. Certainly, it was important to all that were interviewed that the Westark program was a baccalaureate. Therefore, within the context of the interviews, it is important that Westark College has a community college baccalaureate. However, when the researcher begins extrapolating this finding into the context of the literature review, this importance is not as conclusive.

Several other community colleges are currently considering, or in the process of becoming, baccalaureate granting institutions [Cook, 1999]. Westark clearly is a member of this small but growing list. However, the researcher questions whether any of the current or developing baccalaureate programs at other community colleges use a similar program/curricular approach to Westark's bachelor degree. For example, the general education is not integrated into self-paced student mastered competency modules in Great Basin Community College's one community college baccalaureate program [Community College Times, 1999]. Perhaps the approach toward baccalaureate education chosen by Westark is unique.

Furthermore, the researcher believes Westark's program/curricula design can be applied to non-baccalaureate programs. Figure 10.1 illustrates the researcher's thoughts in this regard.

Figure 10.1

Connecting the Pieces. . . Allows the student to gain knowledge and skills that are relevant and comprehensive.



Finally, for the sake of argument, what if Westark's had instead developed a three-year associate's degree program. Perhaps using terms such as two-year,

three-year and four-year distracts from the function a particular degree program is intended to perform. This distinction is at the core of the discussion that has been ongoing between Westark College and its accrediting agency.

Issues to be Considered for Future Research

Several issues were identified as providing a framework for analyzing the development of the community college baccalaureate. The issues were extrapolated from a synthesis of the literature review and the interviews. Although not directly addressed in this study, the following issues should be considered in future research on the community college baccalaureate. For the sake of context, it is important to note that there is currently no common definition for what is meant by community college baccalaureate [Cook, 1999].

- Community college instructors teach more classes than university instructors. Community colleges are teaching institutions, and research that is commonly carried out at universities is not always necessary to help industry determine future trends and training needs [Walker, 1997; Garmon, 1998; Walker, 1998a,b,c].
- Redirecting resources for faculty workload to baccalaureate programs may have a negative effect on traditional community college programs. This added cost might be at the expense of traditional community college programs such as Adult Basic Education or Lower Division Transfer [Campbell et al., 1998; Cook, 1999].

- While expanding community college commitment to economic development within communities, the community college baccalaureate may change the comprehensive community college mission [Campbell et al., 1998; Cook, 1999].
- The needs being addressed by the community college baccalaureate might be met through existing college and university programs in partnership with the community college [Campbell et al., 1998; Cook, 1999].
- The community college baccalaureate will result in increased institutional competition between community colleges and universities for enrollment and fixed state resources [Campbell et al., 1998; Cook, 1999].
- New laboratories, library resources, and equipment needed to support the baccalaureate will require considerable capital expenditure and therefore affect funding for traditional community college programs [Campbell et al., 1998; Cook, 1999].

Each of these issues will require further study if an increasing number of community colleges begin offering bachelor degree programs. Moreover, it may be advisable for community college leaders to deliberate with the purpose of creating a definition for the community college baccalaureate [Walker, 2000a,b,c]. Toward this end, a task force that was established by North Central Association of Colleges and Schools recently released a report recommending standards for baccalaureate education at the community college. These standards are intended to guide future evaluation of community college baccalaureate programs and are intended to apply

to bachelor degrees granted by the community college, and to bachelor degrees granted by a partnering college or university (such as a two-plus-two bachelor degree). These standards acknowledge the emergence of the community college baccalaureate and are an important benchmark toward creating a definition for this new degree program [Higher Learning Commission, 2001].

Epilog

This inquiry used the synthesis of interviews of salient individuals to construct a unique account of the development of the Westark College Bachelor's of Manufacturing Technology degree program. These stories were related at length in vignettes and shared diverse perspectives surrounding a common historical series of events. The narratives were the foundation of a fusion that contributed to three overarching and compelling themes. Those themes were: community support toward community need; alternative delivery model; and, questioning whether it is significant that Westark College has a community college baccalaureate. Furthermore, several issues were identified for future research concerning the community college baccalaureate.

When the researcher began this study, he was primarily interested in identifying and describing how Westark established a bachelor degree at a community college. As he sifted through the data, the focus of the study changed to how Westark developed its program and curriculum. While significant that Westark is

offering one community college baccalaureate program, on closer inspection, how the program and curriculum were delivered became more compelling.

In the researcher's opinion, any future study on the community college baccalaureate will need to establish what exactly is meant by community college bachelor degree. What if the Bachelor of Manufacturing Technology had been named three-year Associate of Manufacturing Technology? The Fashion Industry of Technology, which is a community college in New York State, while offering several fashion industry related baccalaureate programs, also offers three-year certificate programs [Call, 1997]. The researcher can only speculate that the accreditation agency would have reacted differently had the Westark baccalaureate been named a three-year certificate or associate degree program.

To some extent, the researcher wonders whether the naming of the degree has caused the true nature of the program to be more difficult to discern. In his opinion, two of the primary elements at play in the Westark program, 1) curricula supporting industry standard student mastered competencies, and 2) the integration of general education into these competencies, have far broader implication for higher education. Therefore, these forces have the potential for a greater impact on higher education than one baccalaureate program. Essentially, this approach to program planning and curriculum development could be applied to community college certificate and associate degree programs, as well as university baccalaureate and perhaps even graduate degree programs.

The intent of this inquiry was not an evaluation of the Westark Bachelor of Manufacturing degree program. What the researcher hoped to accomplish was to uncover the salient factors and issues related to the development of this new program. What was gained through this process is an understanding of how one community college baccalaureate was established, including identifying important themes. Several issues have been described from the interviews and ongoing document search that should be useful for future studies of the community college baccalaureate. Furthermore, the study clearly implies that curricula supporting student master competencies is an entirely different direction of inquiry that is perhaps even more essential than the study of the community college baccalaureate.

In conclusion, whether or not the Westark baccalaureate will be unique to Fort Smith, Arkansas remains to be seen. Other community colleges may attempt to adopt the Westark College model. Lining up the social, economic, political and pedagogical forces to expand the community college degree offerings to include a baccalaureate that includes integrated student master competencies could be difficult. However, Westark College has provided a model for other community colleges that may currently, or in the future, be considering a bachelor degree program.

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APPENDIX
HUMAN SUBJECTS

APPLICATION FOR APPROVAL OF THE OSU INSTITUTIONAL REVIEW BOARD (IRB)
FOR THE PROTECTION OF HUMAN SUBJECTS

Principal Investigator* Betty Duvall E-mail duvallb@orst.edu

Department Education Phone 737-5197

Project Title The factors and issues surrounding development of a community college baccalaureate degree

Present or Proposed Source of Funding None

Type of Project: Faculty Research Project
 Student Project or Thesis*: Student's name Jonathon (John) V. McKee
 Phone 541-317-4943 E-mail jmckee@bendcable.com
 Student's mailing address P.O. Box 814, Bend, OR 97709

Type of Review Requested: Exempt Expedited Full Board

The Oregon State University Institutional Review Board (IRB) for the Protection of Human Subjects is charged with the responsibility of reviewing, prior to its initiation, all research involving human subjects. The Board is concerned with justifying the participation of subjects in research and protecting the welfare, rights and privacy of subjects.

All material should be submitted **IN DUPLICATE** to the Research Office, Kerr A312. Please call x7-0670 if you have questions. The following information must be attached to this form with each item identified and addressed separately or the application will be returned without review.

1. A brief description (one paragraph) of the significance of this project in lay terms.
2. A description of the methods and procedures to be used during this research project. Outline the sequence of events involving human subjects.
3. A description of the benefits (if any) and/or risks to the subjects involved in this research.
4. A description of the subject population, including number of subjects, subject characteristics, and method of selection. Include any advertising, if used, to solicit subjects. Justification is required if the subject population is restricted to one gender or ethnic group.
5. A copy of the informed consent document. The informed consent document must include the pertinent items from the "Basic Elements of Informed Consent" and must be in lay language.
6. A description of the methods by which informed consent will be obtained.
7. A description of the method by which anonymity or confidentiality of the subjects will be maintained.
8. A copy of any questionnaire, survey, testing instrument, etc. (if any) to be used in this project.
9. Information regarding any other approvals which have been or will be obtained (e.g., school districts, hospitals, cooperating institutions).

Signed _____ Date _____
 Principal Investigator

**Application for Approval of the OSU Institutional Review Board (IRB)
for the Protection of Human Subjects**

Department: Education **Phone:** 737-5197 **E-mail:** duvallb@orst.edu

Principal Investigator: Betty Duvall

Project Title: The factors and issues surrounding development of a community college baccalaureate degree

Present or Proposed Source of Funding: None

Type of Project: Student Thesis

Jonathon (John) Vincent McKee, PO Box 814, Bend, OR 97709

Phone: (541) 317-4943 E-mail: jmckee@bendcable.com

Type of Review Requested: Exempt

1. Purpose: The Purpose of this study is to describe the factors and issues surrounding development of a community college baccalaureate degree. Currently there is a growing interest among community college leaders in the community college baccalaureate. This innovation would be the next paradigm shift for the community college in the United States. A community college baccalaureate was established in Arkansas in 1997. State legislation incorporated Westark Community College as a pilot project that can offer up to nine select baccalaureate degrees. This initial program, a three-year Bachelor's of Manufacturing Technology, began with 20 students in the fall of 1998. This expanded role of the community college needs to be evaluated carefully. Resources are too scarce to simply add the community college baccalaureate without careful examination of the impact upon existing and successful programs, and on higher education in general.

2. Procedures: A questionnaire will be developed for use at Westark College. The questionnaire will be administered to one individual representing several different groups. Each individual will be involved with a community college baccalaureate program.

The inquiry will be open-ended, in that each question will be used as a guideline. It is reasonable to expect that follow up questions and unanticipated discussion will occur. It will be made clear from the outset that the purpose of this study is to describe the factors and issues surrounding development of a community college baccalaureate degree. Therefore, discussion not related to this topic will be kept to a minimum.

John McKee will meet with each participant at mutually agreed time and place. Interviews will be tape recorded if the participant agrees, and participants may ask

to have the tape recording stopped at any time. If the participants do not agree to be tape recorded, John McKee will take notes by hand. During interviews, John McKee will also take field notes on such things as possible non-verbal messages being given by subjects and what may be happening in the surroundings. John McKee will transcribe the interviews. Participants will be offered an opportunity to review transcripts of the interviews and what is written about them in the dissertation and may clarify what they have said or the impression they were trying to make.

The data will be collected during late winter of 2000. One week will be spent in Arkansas interviewing the representative groups. The possibility exists for a second meeting with the subjects, if deemed necessary. Follow up electronic mail and telephone conversations may also be required.

The data will be analyzed during the spring of 2000, with a special interest in common threads and themes.

3. **Risks and benefits:** There are no foreseen risks to or direct benefits for the participants.
4. **Subjects:** The Vice President for Instruction at Westark College will select a representative from the following representative groups:
 - Student,
 - Employer,
 - College Administrator,
 - Instructor,
 - Accreditation agency representative, and
 - State higher education commission representative.

The Vice President for Instruction at Westark College will then provide John McKee with the name and telephone number of these persons.

Information that will be addressed during this initial contact is as follows:

Hi, _____. I'm _____ from Westark College. Researchers at Oregon State University are interested in interviewing students, employers, college administrators, instructors, accreditation agency representatives, and state higher education commission representatives involved with our baccalaureate program. What they want to know are your thoughts about the factors and issues surrounding development of a community college baccalaureate degree. I'll tell the researchers your name and telephone number if you might be interested in participating in the study. You can decide whether they can interview you after you talk with them. Are you interested in talking with them?

5. **Informed consent document:** The copy of the informed consent document is attached. The attachment is not on Oregon State University letterhead. However, all informed consent documents used during the study will be on Oregon State University letterhead.
6. **Method by which informed consent will be obtained:** When a participant orally agrees to participate in the study, a time and place for the first interview will be arranged. The informed consent document will be explained to the participant at the first meeting, and the interview will start after the document is signed.
7. **Confidentiality:** Any information obtained from the subjects will be kept confidential to the extent the law allows. Participants will select their own pseudonyms and will be identified only by those pseudonyms in the transcripts and any reports or presentations. The only people who will have access to this information will be John McKee and Betty Duvall who will verify what John McKee has written if necessary. The audio tapes will be erased when the study has been completed. Participants will be allowed to correct the transcripts of the interviews and advise John McKee on anything that he writes about them in the dissertation. This includes deleting information that could reveal the identity of the participants.
8. **Framing questions for the initial interview:**
 - Whose needs are being met?
 - Is the need for increased baccalaureate access or advanced workforce training?
 - Does this need justify the community college baccalaureate?
 - Does the community college baccalaureate respond to student, institutional, community and state needs?
 - Can community colleges provide baccalaureate programs for less money than colleges and universities?
 - What impact will the community college baccalaureate have on fixed state resources?
 - Are the state guidelines for program approval adequate to approve the need and structure of the community college baccalaureate?
 - Will the community college baccalaureate require new finding formulas?
9. **Approvals:** The researchers will acquire a letter from the Vice President for Instruction at Westark College agreeing to participate in this study.

INFORMED CONSENT DOCUMENT

- A. Title of the Research Project.** The factors and issues surrounding development of a community college baccalaureate degree.
- B. Investigators.** Professor Betty Duvall and Jonathon (John) Vincent McKee, Doctoral Student.
- C. Purpose of the Research Project.** The purpose of this study is to describe the factors and issues surrounding development of a community college baccalaureate degree. Currently there is a growing interest among community college leaders in the community college baccalaureate. This innovation would be the next paradigm shift for the community college in the United States. A community college baccalaureate was established in Arkansas in 1997. State legislation incorporated Westark Community College as a pilot project that can offer up to nine select baccalaureate degrees. This initial program, a three-year Bachelor's of Manufacturing Technology, began with 20 students in the fall of 1998. This expanded role of the community college needs to be evaluated carefully. Resources are too scarce to simply add the community college baccalaureate without careful examination of the impact upon existing and successful programs, and on higher education in general.
- D. Procedures.** I understand that as a participant in this study the following things will happen:
- 1. Pre-study Screening.** I am a student, faculty member, administrator, or representative of the state board of education or regional accrediting agency. In my capacity, I have been involved with the community college baccalaureate program at Westark College. I was asked by the Vice President for instruction at Westark College about whether or not I might be interested in participating in this study, and I indicated that my name and phone number could be given to John McKee.
 - 2. What participants will do during the study.** I will meet with John McKee while he is in Arkansas visiting Westark College. John McKee and I will meet at mutually agreed time and place. If I agree, interviews will be tape recorded, and I can ask that the tape recorder be turned off at any time. I will be offered an opportunity to review transcripts of the interviews and may clarify what I have said. If I do not agree to be tape-recorded or ask to stop a tape recording, John McKee will take notes by hand. Regardless of whether or not interviews are tape recorded, John McKee will take notes about the interview and our surroundings. I will be asked to correct the transcripts of interviews and to advise John McKee on anything he writes about me in his dissertation.

3. **Foreseeable risks or benefits.** There are no foreseeable risks or direct personal benefits.
4. **Confidentiality.** Any information obtained from the subjects will be kept confidential to the extent the law allows. Participants will select their own pseudonyms and will be identified only by those pseudonyms in the transcripts and any reports or presentations. The only people who will have access to this information will be John McKee and Betty Duvall who will verify what John McKee has written if necessary. The audio tapes will be erased when the study has been completed. Participants will be allowed to correct the transcripts of the interviews and advise John McKee on anything that he writes about them in the dissertation. This includes deleting information that could reveal the identity of the participants.

F. **Voluntary Participation Statement.** I understand that my participation in this study is completely voluntary and that I may either refuse to participate or withdraw from the study at any time without penalty or loss of benefits to which I am otherwise entitled. I understand that if I withdraw from the study before it is completed all information that I have provided will be destroyed.

G. **If You Have Questions.** I understand that any questions I have about the research study or specific procedures should be directed to John McKee, P.O. Box 814, Bend, Oregon 97709, (541) 317-4943; or Betty Duvall, School of Education, Oregon State University, Corvallis, OR 97331, (541) 737-5197. If I have questions about my rights as a research subject, I should call Mary Nunn, Director of Sponsored Programs, OSU Research Office, (541) 737-0670.

My signature below indicates that I have read and that I understand the procedures described above and give my informed and voluntary consent to participate in this study. I understand that I will receive a signed copy of this consent form.

Signature of subject

Date signed

Subject's printed or typed name

Address

Phone number(s)