

**TEACHER CANDIDATE PERCEPTIONS OF
ELECTRONIC ACADEMIC PORTFOLIOS**

By

JULIE E. PYLE SAMUELS

B.A., Ottawa University, 1989

M.S., Pittsburg State University, 1998

AN ABSTRACT OF A DISSERTATION

**Submitted in partial fulfillment
of the requirements for the degree**

DOCTOR OF PHILOSOPHY

**Department of Curriculum and Instruction
College of Education**

**KANSAS STATE UNIVERISTY
Manhattan, Kansas**

2006

ABSTRACT

The purpose of this study was to determine to what extent teacher candidates perceive value in the process of constructing an electronic academic portfolio. This study will also attempt to answer what process teacher candidates used in developing their electronic academic portfolios and what value teacher candidates assign to each of the steps in the process as well as how the teacher candidate intends to use the academic portfolio during the final semester prior to the professional semester.

A qualitative multi-case study was used to conduct the research. Data collected included a pre and post survey as well as three one-on-one interviews with eleven teacher candidates. Teacher candidates were also asked to keep an electronic journal to answer the following questions.

1. Describe the process you used to create your electronic academic portfolio.
2. Describe your personal frustrations with creating your electronic academic portfolio.
3. Describe your personal triumphs with creating your electronic academic portfolio.

The analysis of the data took place throughout the final semester prior to the professional semester, during which time teacher candidates are taking his or her last five restricted methods courses. The researcher recruited one additional reader in the field of education. The reader was trained prior to the actual coding day by the researcher to identify themes from the pilot study.

- Theme A: Pride
- Theme B: Organization

- Theme C: Technology Skills
- Theme D: Value
- Other

The commonalities were coded by the reader and the researcher.

The goal of this was to examine teacher candidate perceptions in creating and electronic academic portfolio. Teacher preparation programs must determine if the process of creating an electronic academic portfolio has positive effectiveness.

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Approved by:

**Major Professor
Dr. Todd Goodson**

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TABLE OF CONTENTS

LIST OF TABLES	viii
LIST OF FIGURES	ix
ACKNOWLEDGEMENTS.....	xi
CHAPTER 1	1
INTRODUCTION	1
Overview of the Issue	7
Statement of the Problem.....	12
Research Question	13
Primary Question	13
Subsidiary Questions	13
Description of the study	13
Purpose of the Study	14
Definition of Terms.....	15
Limitations of the Study.....	16
Organization of the Study	17
CHAPTER 2	19
REVIEW OF RELATED LITERATURE	19
Theoretical Framework.....	19
Theoretical Foundations.....	22
INTASC Standards	24
Research on Teacher Education Portfolios.....	24
Portfolio Development.....	26

Electronic Portfolios	31
Advantages to Digital Portfolios.....	33
Disadvantages of Electronic Portfolios.....	35
Assessment of Electronic Portfolios	37
Summary	38
CHAPTER 3	40
METHODOLOGY	40
Pilot Study.....	41
Site Selection	44
Methodological Framework.....	45
Role of the Researcher	46
Case Study Research.....	47
Research Design.....	49
Data Collection	50
During this study the researcher and the teacher candidates learned from one another in a community of learning.....	53
Data Analysis	53
Potential Contribution.....	57
CHAPTER 4	58
ANALYSIS OF THE DATA.....	58
Overview.....	58
Case #1 – Christine – Tranquil Participant.....	59
Survey	60

Interviews.....	61
Themes Revealed.....	64
Electronic Academic Portfolio.....	65
Researcher Insight.....	66
Case #2 – Zach – Gregarious Character	66
Survey	67
Interviews.....	68
Themes Revealed.....	72
Electronic Academic Portfolio.....	72
Researcher Insight.....	73
Case #3 – Tristen – Technological Reluctance.....	74
Survey	75
Interviews.....	76
Themes Revealed.....	78
Electronic Academic Portfolio.....	79
Researcher Insight.....	80
Case #4 – Audrey – Proficient Seeker	81
Survey	81
Interviews.....	82
Themes Revealed.....	85
Electronic Academic Portfolio.....	86
Researcher Insight.....	87
Survey	88

Interviews.....	89
Themes Revealed.....	92
Electronic Academic Portfolio.....	93
Researcher Insight.....	94
Survey.....	94
Interviews.....	95
Themes Revealed.....	98
Electronic Academic Portfolio.....	99
Researcher Insight.....	100
Case #7 – Lori – Spirited Learner.....	101
Survey.....	101
Interviews.....	102
Themes Revealed.....	104
Electronic Academic Portfolio.....	105
Researcher Insight.....	106
Case #8 – Adam – Ambitious Explorer.....	107
Survey.....	107
Interviews.....	108
Themes Revealed.....	112
Electronic Academic Portfolio.....	113
Researcher Insight.....	114
Case # 9 – Amy – Ambitious Learner.....	115
Survey.....	115

Interviews.....	116
Themes Revealed.....	119
Electronic Academic Portfolio.....	119
Researcher Insight.....	120
Case # 10 – Shelly – Outspokenly Confident.....	121
Survey.....	121
Interviews.....	122
Themes Revealed.....	127
Electronic Academic Portfolio.....	128
Researcher Insight.....	128
Case #11 – Brenda – Bandwagon Skeptic.....	129
Survey.....	129
Interviews.....	130
Themes Revealed.....	132
Electronic Academic Portfolio.....	133
Researcher Insight.....	134
Analysis of Data.....	148
Teacher Candidate Perception Survey.....	149
Interviews.....	149
Comparison of Themes Revealed.....	149
Electronic Academic Portfolios.....	151
CHAPTER 5.....	153
Summary of Study.....	153

Implications for Teacher Preparation.....	163
Conclusions.....	165
Summary.....	168
References.....	171
Appendix A - KSDE Standards for Professional Education.....	179
Appendix B - University Professional Knowledge Base.....	182
Professional Characteristics.....	182
Relationship with Students.....	183
Instructional Planning.....	184
Instruction.....	184
Classroom Management.....	186
Evaluation.....	187
Appendix C - INTASC Standards.....	189
Appendix D – Academic Portfolio Formative Rating Sheet.....	191
Appendix E – Academic Portfolio Summative Rating Sheet.....	193
Appendix F - Pilot Study Interview Protocol.....	201
Appendix G - Informed Consent to Institutional Review Board & Approval.....	202
Appendix H – Interview Protocol Round One.....	205
Appendix I – Interview Protocol Round Two.....	206
Appendix J – Interview Protocol Round Three.....	207
Appendix K – Cresswell’s Guidelines to Protect Subjects.....	209
Appendix L – Teacher Candidate Survey Letter.....	210
Appendix M – Teacher Candidate Perception Survey.....	211

Appendix N – Informed Consent Letter to Study Participants	213
Appendix O – Fowler’s Think Aloud Guidelines	214
Appendix P – Teacher Candidate Perception Survey	215
Appendix Q – Directions for Coding	220
Appendix R – Coding Chart	221
Appendix S – Electronic Academic Portfolio Framework	222

LIST OF TABLES

Table 3.1	Sample Coding Chart	56
Table 4.1	Academic Portfolio Summative Rating Sheet – Christine	65
Table 4.2	Academic Portfolio Summative Rating Sheet – Zach	73
Table 4.3	Academic Portfolio Summative Rating Sheet – Tristen	80
Table 4.4	Academic Portfolio Summative Rating Sheet – Audrey	87
Table 4.5	Academic Portfolio Summative Rating Sheet – Maria	93
Table 4.6	Academic Portfolio Summative Rating Sheet – Raven	100
Table 4.7	Academic Portfolio Summative Rating Sheet – Lori	106
Table 4.8	Academic Portfolio Summative Rating Sheet – Adam	114
Table 4.9	Academic Portfolio Summative Rating Sheet – Amy	120
Table 4.10	Academic Portfolio Summative Rating Sheet – Shelly	128
Table 4.11	Academic Portfolio Summative Rating Sheet – Brenda.....	134
Table 5.1	Teacher candidate’s definition of an academic portfolio	159
Table 5.2	Self-selected artifacts	162

LIST OF FIGURES

Figure 4.1	Themes Revealed – Christine.....	64
Figure 4.2	Themes Revealed – Zach.....	72
Figure 4.3	Themes Revealed – Tristen.....	79
Figure 4.4	Themes Revealed – Audrey.....	86
Figure 4.5	Themes Revealed – Maria.....	92
Figure 4.6	Themes Revealed – Raven.....	99
Figure 4.7	Themes Revealed – Lori.....	104
Figure 4.8	Themes Revealed – Adam.....	113
Figure 4.9	Themes Revealed – Amy.....	119
Figure 4.10	Themes Revealed – Shelly.....	127
Figure 4.11	Themes Revealed – Adam.....	132
Figure 4.12	Teacher candidate perceptions for the need of outside help with the commercial program	136
Figure 4.13	Teacher candidate perceptions of progress made in learning how to use the commercial program to create an academic portfolio.....	138
Figure 4.14	Teacher candidate perceptions of embarrassment of using technology in front of peers.....	139
Figure 4.15	Teacher candidate perceptions of preference to learn things as an individual.....	140
Figure 4.16	Teacher candidate’s perceptions of learning technology without formal training.....	141

Figure 4.17	Need for formal training classes when learning new technology.....	142
Figure 4.18	Too much change with not enough planning and support.....	143
Figure 4.19	Teacher perceptions of how creating an electronic academic portfolio will enhance teacher performance.....	144
Figure 4.20	Teacher candidate perceptions of learning with a partner.....	145
Figure 4.21	Teacher candidate perceptions of the electronic academic portfolio technology as another bandwagon in education.....	146
Figure 4.22	Teacher candidate perceptions of pride in accomplishments	147
Figure 4.23	Teacher candidate's perceptions of being left behind in technology.....	148
Figure 4.24	Themes Revealed – Group.....	151

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CHAPTER 1

INTRODUCTION

My name is Julie Samuels, and I am a teacher. Teaching defines who I am and I am unable to imagine my life in any profession other than teaching. It is my deep-rooted desire and ambition to be a better teacher today than I was yesterday, and a better teacher tomorrow than I was today. My life is abundant and complete in the classroom and I have discovered great pleasure in helping future teachers discover the joy and excitement of teaching.

Portfolios are used to collect meaningful information and have had a long history before entering the realm of education. Artists have used portfolios for many years to demonstrate their artistic talent. The portfolio illustrates work through a collection of pieces chosen specifically by the artist to exhibit what the artist has done and what the artist is capable of doing in the future. The portfolio shows evidence of growth and transformation as the artist continues to develop artistically. Deep reflection on the part of the artist transpires in the selection of items to be placed in the portfolio.

The business world uses portfolios to exhibit and describe assets belonging to companies or individuals. This type of portfolio is a collection of securities and assets belonging to the owner and the purpose of the business portfolio allows the owner easy visual access to his or her investments in order to reflect on securities and to make wise business decisions.

Educators use portfolios at all levels of schooling for a variety of purposes in the classroom. Portfolios can demonstrate what students are learning in the classroom by collecting artifacts that demonstrate knowledge acquired throughout the learning process. Tompkins (2004) and Strudler & Wetzel (2005), and Barrett (2004) believe students who use portfolios in the classroom setting are able to feel ownership of their work and become more responsible about their work because the artifacts will be placed in a portfolio to be shared with teachers and parents. The portfolio allows for conversations about learning when shared with teachers, parents and peers. Tompkins (2004), Studler & Wetzel also realize connections can be made between learning and assessing when students are able to reflect on their accomplishments.

Zubizarreta (2004) believes students are more likely to assume responsibility for documenting and interpreting their own learning when he/she is able to have self-selected artifact and through reflection, students make their learning visible. Hagan Piper (1999) concurs with Zubizaretta and believes academic portfolios have a substantial place in teacher education programs. The academic and or learning portfolio allows for teacher candidates to see his or her growth over time.

Barrett and Knezek (2003) note that electronic portfolio implementation in teacher preparation programs are on the rise and are being used to secure evidence of growth, progress, and mastery of expected outcomes on the part of pre-service teachers. A portfolio holds the owner accountable to him or herself as well as to other entities and the portfolio is capable of capturing many aspects of student teacher performance. As Wyatt (1999) notes, "Ironically, a portfolio can easily cover critical

thinking, authenticity, hands-on, students-centered, reflection, qualitative assessment, and more” (p. 1).

Not surprisingly, portfolios in education have are increasing used for several years and are being used to collect meaningful information about student achievement. Zubizarreta (2004) suggests looking at the history of portfolios in education. He states, “Writing portfolios, for example, have been used generously in composition, creative writing, and other types of communication courses to present a diverse profile of a student’s creative and technical skills” (p.3). Portfolios are not new in the realm of education and Batson (2002) concurs with Zubizarreta’s thoughts.

English departments and writing programs have been employing portfolios for 25 years or so using "Webfolios" (or ePortfolios based on HTML links), since the inception of the Internet in the mid-90s. Writing programs have a history with implementation that could be helpful on your campus (n. pag.). Portfolios naturally found a fundamental place of discovery and reflection in the classroom.

Danielson (1997) explains the importance of discovery and reflection for students and teachers in the portfolio process.

Teachers discover many benefits of collecting items for a portfolio. They must examine materials...to determine which artifacts best illustrate the characteristics of good communication identified in their standards of practice.

This exercise requires them to reflect on their practice” (p. 14).

Critical analysis and self-evaluation take place during the artifact selection process, allowing students to be responsible for their learning. Herbert (1998) believes the

selection process reflects the meta-cognitive maturity of the student. Self-assessment ensures students will be actively involved and accountable for their understanding throughout the learning process.

Electronic portfolios utilize technology in order to display the artifacts, and that technology expands the types of artifacts that can be included. Students can use videography as well as audio within the electronic portfolio. Technology skills are necessary in order for the student to create and maintain an electronic portfolio.

Batson (2002) believes that, “Schools of education are especially good candidates as they're pressured by accrediting agencies demanding better-organized and accessible student work. Some statewide systems are adopting ePortfolio systems as well” (n. pag.).

The advantages of using electronic portfolios are numerous and varied. Zubizarreta (2004), notes “The advent of digital technology has done much to alter the way in which learning is displayed, shared, and analyzed in multimedia and hypermedia environments” (p. 39). Electronic portfolios can be stored in an organized manner without taking up much physical space (Barrett & Wilkerson, 2003). Portfolios housed in paper format can become large and awkward and not easily stored. Electronic portfolios can be shared easily with others and can be created in several different manners (e.g. burned to a CD and/or placed on a web page). Barrett & Wilkerson (2003) note the security issue with the use of electronic portfolios. The owner of the electronic portfolio has the “ability to restrict access, setting permissions” (n. pag.).

Barrett (2000a) emphasizes the difference between electronic portfolios and digital portfolios.

Often, the terms electronic portfolio and digital portfolio are used interchangeably; however there is a distinction: an electronic portfolio contains artifacts that may be in analog form, such as a video tape, or may be in computer-readable form; in a digital portfolio, all artifacts have been transformed into computer-readable form. An electronic portfolio is not a haphazard collection of artifacts (i.e., a digital scrapbook or a multimedia presentation) but rather a reflective tool that demonstrates growth over time. (n. pag.).

Electronic portfolios meet a dual purpose in teacher preparation programs-- technology skills and assessment. Preparing Tomorrows Teacher Today (PT3) was an initiative in education that aspires to insure teacher candidates are prepared to use and exhibit technology skills in and out of the classroom. Since the development of the National Educational Technology Standards for Students and Teachers (NETS) through the cooperation of the U.S. Department of Education, International Society of Technology in Education (ISTE), and other organizations, states are beginning to integrate technology standards for teachers and students with their courses of study (Wilkerson & Lang 2003). The implementation of electronic portfolios into teacher preparation programs allows a teacher candidate to have the ability to exhibit his or her technology skills. Wright & Stallworth (2002) forewarn electronic portfolios take considerable time and effort on both the teacher candidate and the professor. The electronic portfolio is a multifaceted process and takes time and effort on the part of

the teacher candidate and the institution to make the process meaningful and purposeful.

Teachers who keep portfolios will also be more effective in using portfolios with their students. Campbell, Cignetti, Melenzyer, Nettles, and Wyman (2004) maintain,

A portfolio is not merely a file of course projects and assignments, nor is it a scrapbook of teaching memorabilia. A portfolio is an organized, goal-driven documentation of your professional growth and achieved competence in the complex act called teaching (p. 4).

Further, Barret (2000b) found that when teachers experience and model the creation of an electronic portfolio, the likelihood of implementation into their classroom increases.

During the portfolio process, there are times when it is exceedingly appropriate for students to self-select artifacts to be included in the portfolio. The reason for student selection is to give the student an opportunity for deep reflection and critical thinking (Campbell et al., 1997). When a student selects a piece of work to be included in the portfolio, he or she is using critical thinking skills and analyzing the artifacts in order to make sure the piece meets the purpose of the portfolio. Responsibility for learning is placed on the student. The student will be required to explain why the artifact was chosen and how the artifact demonstrates that learning has occurred, and the student must show how the artifact meets the purpose and goal of the portfolio.

Campbell et al. (2004) defines an artifact as evidence that teachers use to document or support how they meet the teaching standards. Students may not be aware of the importance of an artifact. Teachers will be able to look through a lens different from the student to see growth. Students will need to be guided through the self-evaluation process; in the beginning students will not always have the capability to self evaluate. Self-evaluation is a key component to effective teaching.

Creating an electronic portfolio has additional benefits as noted by Barrett (2000a). She believes “each stage of the portfolio development process contributes to teachers’ professional development and students’ lifelong learning” (p.1). Barrett (2000a) also concludes that

The process of creating an electronic teaching portfolio should incorporate not only multimedia technology skills, but also the portfolio development process. Otherwise, we will continue to produce web pages or multimedia presentations masquerading as electronic portfolios; a portfolio without goals (or standards) or reflections is just a multimedia presentation, or a fancy electronic resume, or a digital scrapbook (p. 6).

The desire to implement and use electronic portfolios in the education setting must have a meaning and a purpose.

Overview of the Issue

Teacher assessment is at the forefront of teacher preparation programs. The National Council of Accreditation of Teacher Education (NCATE) holds universities accountable for preparing competent beginning teachers. In 1983, The U.S. Department of Education’s National Commission on Excellence in education

published a report entitled *A Nation At Risk* (National Commission on Excellence in Education, (1983). The United States became panic-stricken and education came under great scrutiny with what was happening in the public school system. The Commission on Excellence gave recommendations in the following areas: content, standards and expectations, time, teaching, and leadership and fiscal support. The second recommendation is directed towards colleges and universities:

We recommend that schools, colleges, and universities adopt more rigorous and measurable standards, and higher expectations, for academic performance and student conduct, and that 4-year colleges and universities raise their requirements for admission. This will help students do their best educationally with challenging materials in an environment that supports learning and authentic accomplishment (National Commission on Excellence in Education (1983, n. pag.).

Former President Bill Clinton instituted additional reforms through the Goals 2000: Educate America Act signed into law on March 31, 1994 eleven years after *A Nation At Risk* (National Commission on Excellence in Education. (1983). The act continued the demand for trained, competent teachers in every classroom. “Every child needs and deserves dedicated, outstanding teachers who know their subject matter, are effectively trained, and know how to teach to high standards and to make learning come alive for students” (U.S. Department of Education, May, 2000) (n. pag.).

President George W. Bush continued the education initiative for the United States with “No Child Left Behind Act of 2001” (PL 107-110) in which was signed into law on January 8, 2002. This initiative called for higher standards for teachers

and students, giving parents the right to remove their child from a failing school.

Bullock (2001) asserts, “The reality is that the majority of subsequent reform movements have focused on the need to fill our classrooms with competent teachers” (p. 3).

Morrison (2003) notes, “In 1996, the National Commission on Teaching and America’s Future published a report with the following recommendation: by the year 2006, America will provide every student with what should be his or her educational birthright: access to competent, caring and qualified teachers in schools organized for success” (p. 43). Bullock (2001) believes “The accountability movement became a part of the educational landscape in the latter part of the twentieth century” (p.3).

With increased standards and continued directives from Washington, D.C. to ensure all classrooms by the 2005 – 2006 school year have highly qualified teachers, teacher preparation programs have begun looking for a documentation method to authenticate teacher candidates are prepared and ready to enter the classroom. As stated by the U.S. Department of Education (2002) a highly qualified teacher must meet the following requirements:

1. A Highly Qualified Teacher has obtained full state certification or licensure
2. A Highly Qualified Teacher holds at least a bachelors degree, and
3. A Highly Qualified Teacher has demonstrated by passing a rigorous State test, subject knowledge and teaching skills in reading, writing, mathematics, and other areas of the basic elementary school curriculum (which may consist of passing a State-required certification

or licensing test or tests in reading, writing, mathematics, and others areas of basic elementary school curriculum) (n. pag.).

Campbell et al. (2004) observes that, “Because the National Council of Accreditation of Teacher Education is now requiring performance assessment in the teacher education programs that accredits student teachers, in-service teachers, and university faculty are more interested than ever in the use of professional teaching portfolios” (p. vi).

Since the implementation of the Kansas Performance Assessment (KPA) an added incentive has been provided to teacher preparation programs and teacher candidates to learn how an electronic portfolio can be used to demonstrate competency. Beginning teachers in Kansas, upon graduating from an accredited institution, may apply for and obtain an initial license. After gaining employment in an accredited school, beginning teachers will have two years to complete the Kansas Performance Assessment (KSDE, 2006). Beginning teachers will be able to use the technology skills learned/acquired from creating the electronic portfolio to complete and showcase his or her work sample. At the present time the Kansas Performance Assessment is still turned in to the State Department of Education in a paper format. Lyons (1998) believes “portfolios hold the possibility of becoming a new kind of credential of competent and effective teachers.”

The use of portfolios in education is becoming more extensive in teacher education programs (Barrett & Knezek, 2003; Baton & Collins, 1993; Zubizarreta 2004). There is a growing body of research on the portfolios themselves, but we have not, as yet, taken a hard look at how teacher candidates (pre-service teachers) view

this process. Bouas and Bush (1994) found in their research over 200 articles noting the use of academic portfolios in teacher education programs. However, there is not one common practice for implementing and using electronic portfolios. Educators are continuing to delve, discuss and debate how this process can or should be used to monitor academic and professional growth. Portfolios have progressively made their way into teacher preparation programs in the United States. Kilbane (2003) says, “Teaching portfolios have been increasing in popularity since the early 1990’s” (p. 7). It is the feature of reflection and assessment that has caught the attention of higher education. Wyatt (1999) describes, “In some states (Oklahoma, for example), students are being required to present a portfolio for completion of degrees in education leading to certification. In many instances, portfolios are required at both the undergraduate and graduate levels” (p. 7).

Bullock (2001) believes portfolios should have a specific purpose and a specific audience; they must contain work samples, commonly called evidence, and reflections. It is through the reflection process that self-evaluation and growth take place. Campbell et al. (2004) and Barrett (2000a) voice concerns that creating a portfolio is extraordinarily time-consuming, and extra time is something that most teachers do not have. Nevertheless, teacher candidates need the opportunity to develop an academic portfolio if he or she is to be expected to create their own goal specific portfolio when they have their own classroom.

Pragmatically, electronic portfolios work very well to house specific artifacts to demonstrate standards have been met within the teacher preparation program. Campbell et al. (2004) believes “Technology now exists that makes it possible for

prospective and practicing teachers to demonstrate teaching competence and professional growth through the use of electronic portfolios” (p. 19).

Bullock (2001) reports that the use of portfolios “enable teachers to (1) demonstrate that they meet the given set of standards, (2) communicate why they are effective and competent, and (3) take charge of their own assessment” (p. 10). More districts are looking in the near future to implement the use of electronic portfolios to assess teacher impact on p-12 students. Campbell et al. (2004) believes if teachers want to be involved in their own development and supervision, they must take ownership of the evaluation process. The electronic portfolio holds the potential for allowing teacher candidates to make reflective decisions about artifact selections and seize the opportunity to exhibit growth.

Electronic portfolios allow for teachers and teacher candidates to observe, validate and confirm that learning is taking place in the classroom. Campbell et al. (2004) say portfolios allow teachers and teacher candidates to provide an organized, goal-driven documentation of their professional growth and teaching. Reflection is a key part of self-assessment and professional growth. Through the use of portfolios, self-assessment and self-reflection can take place in a visual format.

Statement of the Problem

Given that portfolios are a recognized form of valid assessments of teacher performance, that electronic portfolios are emerging as an efferent and potentially effective form of teaching portfolio, and that teacher education institutions are, for all practical purposes, required to use portfolio assessments, it is virtually assumed that

electronic portfolios will increasingly come to dominate the time and attention of undergraduate teacher candidates.

Research Question

The following primary question and three subsidiary questions were addressed during this study.

Primary Question

To what extent do teacher candidates perceive value in the process of constructing electronic academic portfolio?

Subsidiary Questions

- What steps did the teacher candidate use in the process of putting together his or her electronic academic portfolio?
- What value did teacher candidates assign to each of the steps in the process of creating an electronic academic portfolio?
- To what extent do teacher candidates demonstrate pride, organization and technology skills in his or her electronic academic portfolio?

Description of the study

The study was conducted at a regional state university with a strong history as a teacher training institution, with eleven teacher candidates who were taking the last restricted courses prior to the professional semester. The researcher asked for volunteers from of section of Intermediate Reading and Language arts and was seeking to find ten participants. Eleven teacher candidates volunteered to participate in the eight week study. The researcher included all eleven teacher candidates. The teacher represented the following teacher candidate categories; non-transfer, transfer,

elementary, gender, traditional, non-traditional. Ethnicity is not an option for this study because of the lack of diversity enrollment in the college of education.

Qualitative research will be used to conduct the study. Case studies were completed for each teacher candidate participating in the research project and are presented in chapter four.

Data collection was gathered from teacher candidates during initial individual interviews, surveys and electronic journals reflecting and giving perceptions on the process of putting together their academic electronic portfolio using Folio-Live, (McGraw Hill, 2002) a computer generated portfolio created by McGraw Hill. Teacher candidate artifacts, reflections, surveys, and personal interviews guided the second round of interview questions. Research will focus strictly on the teacher candidate perceptions.

Purpose of the Study

The purpose of this study was to determine to what extent teacher candidates perceive value in the process of constructing an electronic academic portfolio. This study attempted to answer what process teacher candidates used in developing their electronic academic portfolios and what value teacher candidates assign to each of the steps in the process as well as how the teacher candidate intends to use the academic portfolio during the final semester prior to the professional semester.

The institution in which the researcher is teaching implemented the use of a commercial electronic portfolio (Folio-Live, McGraw Hill, 2002) beginning the fall semester of 2002. All teacher candidates entering into the program use the commercial electronic portfolio to create an electronic academic portfolio and created

an academic portfolio and will create professional portfolio during the professional semester. This study took place during the semester prior to the professional semester. The teacher candidates begin using Folio-Live (McGraw Hill, 2002) during the introductory education class and have continued to use the program throughout their education courses at the institution.

Definition of Terms

1. **Artifacts:** Any item – document or PowerPoint slide or video clip – that is added to your portfolio to demonstrate your abilities and experiences (Folio Live, 2003).
2. **Academic portfolio:** A collection of specific artifacts that meet the academic goals of a teacher candidate preparation program.
3. **Commercial program:** An electronic portfolio program created and distributed by a publishing company.
4. **Electronic portfolio:** A purposeful compilation of and reflection on an individual's work, effort, and progress over time that integrate technology.
5. **Folio-Live:** A commercial electronic portfolio program developed by McGraw Hill (McGraw Hill, 2002).
6. **Perception:** power or ability to become aware of something through the senses; a mental impression; also, understanding.
7. **Portfolio:** An organized, goal-driven documentation of your professional growth and teaching competence. (Campbell et al., 2004, p.20)
8. **Teacher candidate:** Pre-service teacher enrolled and admitted to the College of Education.

9. Value: Perceived worth, importance or usefulness. The quality (positive or negative) that renders something desirable or valuable.

Limitations of the Study

There are several limitations in this study. There are eleven participants in whom all of whom are Early/Late Childhood K-6 majors and there are no Secondary Education majors participating in the study. There is also a lack of ethnic diversity because of limited enrollment in the college of education. Out of the eleven teacher candidates participating in this study one teacher candidate is from the Marshall Islands and plans to return home to teacher after graduation.

Although teacher candidates will receive technology training for Folio-Live (McGraw Hill, 2002) during the Introduction to Education course, not all teacher candidates participating in this study are confident in using technology or Folio-Live (McGraw Hill, 2002). Teacher candidates who have transferred to the institution and have already taken an Introduction to Education course someplace else will receive training in his or her first clinical experience. All teacher candidates entering the teacher education program in the fall of 2004 are required to use Folio-Live (McGraw Hill, 2002).

The Kansas State Department of Education developed Professional Standards (Appendix A), used in teacher preparation programs in Kansas. Teacher candidates must meet these standards in order to receive a conditional license upon graduating from a four year accredited institution. These standards are used again in order for the teacher candidate who has been issued a conditional license to gain full licensure.

The beginning teacher must complete the Kansas Performance Assessment in order to gain the five-year professional license.

The institution uses an outcome-based approach in the college of education. The Professional Knowledge Base was originally developed in 1991 with 112 behaviors, and performance expectations. The University Knowledge Base (Appendix B) was later reduced to 68 indicators. These indicators are divided into six categories and are integrated into all education courses. The University Knowledge Base is the capstone assessment process at the institution. Teacher candidates are introduced to the University Knowledge Base in introductory education course into the College of Education. The cooperating teacher and field supervisor use the indicators during the professional semester for formal assessment and evaluations.

Yin (1994) addresses the issue of problems within the case study. The researcher believes there "...may reveal flaws in the case study design or even the initial definition of the study problem. If this occurs, you must be willing to make the necessary revisions, even if more time and effort are necessary" (p. 62). The researcher will be flexible and willing to change and make amendments to the research design if necessary. This study will be exploratory in nature with the researcher looking for value and perceptions through the voice of the teacher candidates.

Organization of the Study

Chapter 1 is an introduction to the study of teacher candidate perceptions during the process of developing an electronic academic portfolio and includes an introduction, overview of the issue, statement of the problem, primary and subsidiary

questions, and a description of the study. Definition of the terms used in the study, limitations and organization of the study are included.

Chapter 2 contains a review of the literature on the history of portfolios as well as portfolio development. The review will also examine the implementation and use and assessment of electronic portfolios in education as well as the advantages and disadvantages of using electronic portfolios. Chapter 2 also contains a description of theory used in this study.

Chapter 3 describes the methodology used to discern the value perceptions of teacher candidates throughout the process of developing an electronic academic portfolio.

Chapter 4 analyzes data gathered throughout the study. The data will come from interviews, surveys, electronic journals and conversations with teacher candidates when reviewing the finished academic electronic portfolio. This chapter will contain a case study description for each teacher candidate participating in the study along with graphs to provide a visual description of the data gathered.

Chapter 5 will delineate the conclusions and findings discovered during the research and will provide a summary of the information gathered. This chapter will also provide suggestions for more teaching and research implications in the area of electronic portfolios.

CHAPTER 2

REVIEW OF RELATED LITERATURE

A substantial part of teaching is to keep abreast of research in the field of education. Reading is a great excellent way to keep current with new trends and issues in the world of education. I also believe reading can take you ways to other worlds. I believe if a child can read then a child can do anything. Reading provides opportunity.

Theoretical Framework

The review of literature focuses on the history of portfolios, the development of portfolios, the use of portfolios, the advantages and disadvantages of portfolios and the assessment of portfolios. The review of literature will also focus on the constructivist theory and the use of case studies in research.

This study is grounded in the frame of the constructivist theory. Constructivist theory is not an instructional model...it is a theoretical model about how learners come to know (Orlich, 2004). Read & Cofolla (1999) defines the constructivist theory as “a paradigm that views the learner as actively involved in the construction of his or her own representations of knowledge” (p. 98). Teacher candidates creating the electronic academic portfolio have the chance to be actively involved and define his or her perceptions of knowledge through this process.

Sadker & Sadker (2003) defines constructivism in the following manner:

With roots in cognitive psychology, this educational approach is built on the idea that people construct their understanding of the world. Constructivist

teachers gauge a student's prior knowledge, and then carefully orchestrate cues, classroom activities, and penetrating questions to push students to higher levels of understanding (p. G-3).

The researcher used this definition in order to conduct the research during this study.

Orlich et al. (2004) states that "The foundation of the constructivist model is the idea that learners bring with them prior knowledge and beliefs. Learning builds on what learners have already constructed in other contexts" (p. 42). The researcher will adhere to this belief searching for what knowledge teacher candidates bring at the beginning of the study in the pre perception survey as compared with the post perception survey.

Orlich et al. (2004) believes "In the constructivist model learners and teachers learn from one another" (p. 42). Through the use of electronic academic portfolios the desired outcome is for the teacher candidate to realize and demonstrate learning has taken place and that the new knowledge is building upon prior knowledge.

Kauchak et al. (2005) says "constructivism argues that, instead of behaving like tape recorders, which reproduce words and music in their original form, people 'construct' understanding that makes sense to them" (p. 208). " Selection of artifacts and reflection pieces will be a key factor in determining if learning and connections to prior knowledge has taken place. The researcher will also gain information from the teacher candidates about knowledge connections. Discovering what steps work well in the process and determining where change needs to take place.

This research project was based on Bruner's constructivist theory of instruction and learning. Constructivism, as defined by Schwandt (1997), "is a

philosophical perspective interested in ways in which human beings individually and collectively interpret or construct the social and psychological world in specific linguistic, social, and historical contexts” (p. 19). Greg (1994) describes Bruner’s constructivist theory as an “active process in which learners construct new ideas or concepts based upon their current/past knowledge.” Greg (1994) notes the following principles of constructivism:

1. Instruction must be concerned with the experiences and contexts that make the student willing and able to learn (readiness).
2. Instruction must be structured so that it can be easily grasped by the student (spiral organization).
3. Instruction should be designed to facilitate extrapolation and or fill in the gaps (going beyond the information given).

Electronic academic portfolios and the reflection on the part of teacher candidates that will take place during the creation of the portfolio align well with Bruner’s constructivism theory of instruction and learning.

Ryan (2000) discusses how constructivism embodies the goals of educational reform. He gives the following thoughts:

- Constructivism empowers the learner to take responsibility for their own learning.
- Constructivism views the teacher and school as supporting roles

Throughout the creation of the electronic academic portfolio it is the goal that teacher candidates will take responsibility for his or her learning while the instructors at the institution will provide the educational and technical support (p.443).

Orlich et al. (2004) believes there is “nearly a perfect match between the notion of constructivism and the inquiry model of learning... “(p. 314). Throughout this study the researcher will explore, inquire, and seek to discover teacher candidate perceptions of value in the process of creating electronic academic portfolios in education to measure growth.

With the implementation of the commercial electronic portfolio at the institution the present study seeks to discover if teacher candidates through artifact selection and reflection will model how he or she comes to be a teacher. Ryan (2000) has the opinion that, “...a primary ingredient of the constructivist approach is a learner taking responsibility for his or her own learning” (443).

Arends (2000) states that “Rather than viewing knowledge as fully known, fixed and transmittable, the constructivist perspective holds that knowledge is somewhat personal, and meaning is constructed by the learner through experience” (p. 12).

Arends (2000) “Bruner described scaffolding as a process in which a learner is helped to master a particular problem beyond his or her developmental capacity through the assistance (scaffolding) of a teacher or more accomplished person” (p. 354). Teacher candidates have the opportunity to implement this scaffolding process by building on prior knowledge and linking new knowledge.

Theoretical Foundations

Campbell et al. (1997) published their first book, How to Develop a Professional Portfolio, A Manual for Teachers in 1997. Because of rapid changes and increased popularity of this publication in the use of portfolios in education, there

have been two additional editions. Campbell et al. (2000) also published an assessment book for portfolios. With the implementation of an innovative media format comes the challenge of assessment. Lankes (1995) believes “This method of assessment not only offers an authentic demonstration of accomplishments, but also allows students to take responsibility for the work they have done. In turn, this motivates them to accomplish more in the future” (p. 4).

Bullock (2001) believes “Portfolios have two crucial components: evidence that documents teaching and reflections that support each piece of evidence” (p. 10). Portfolios are not of much value with one component. A portfolio with artifacts alone and missing the reflection piece does not allow the reviewer of the portfolio to see professional growth in the teacher candidate. Lynch (2004) declares portfolios are not merely a collection of artifacts. Portfolios should demonstrate how the teacher candidate is growing and is a representation of self-reflection and self-assessment. Bartell et al. (1998) believes strongly in the idea of reflections and promotion of personal and professional growth.

We use portfolios because they give emphasis to student reflection and self-directed growth. We use portfolios because they help students build the habits of mind necessary for good teaching. Portfolios encourage collaborative dialogue and enriched discussions of teaching. They allow us to document growth over time and allow students to integrate the diversity of their teacher preparation experiences (p. 130).

Self-reflection is a hallmark of a quality teacher and is key to personal and professional growth in and out of the classroom for all teacher candidates as well as classroom teachers.

INTASC Standards

Campbell et al. (2004) based their suggestions for portfolio creation on the Interstate New Teacher Assessment and Support Consortium, (INTASC, 1992) standards. The INTASC standards (Appendix C) were created and written by groups at both the state and national level to provide guidelines to teacher education programs when training teacher candidates. The INTASC standards were published in 1987 and "...represent a shared view among the states and within the profession of what constitutes competent beginning teaching" (Council of Chief State School Officers, 2006).

Campbell et al (1997) believe it is apparent that the engaging of the development of a portfolio organized around a set of goals or standards will greatly facilitate your growth and achievement in the goals identified.

Research on Teacher Education Portfolios

The question of why and how are academic portfolios in teacher education programs has been researched by many.

The ongoing nature of the portfolio development process gives both students and faculty an opportunity to reflect on student growth and change throughout the course of a program – an opportunity that does not exist with a one time exit-oriented exam (Barton & Collins, 1993, p.201)

Barton & Collins (1993) continue, “The portfolio allows faculty to view student work in the context of teaching as a complex activity with interrelated elements” (p. 201). This allows the portfolio to be culmination of the student work as related to the field of education. Barton & Collins (1993) continues, “With a portfolio, students create, with input from faculty, their own assessment documentation to explore their own concerns (p. 201).

Reflections must be a part of the electronic academic portfolio. Wetzel & Strudler (2006) conducted research with teacher candidates and found student reflections fell into one of three categories; 1) personal response, 2) standards and theory, 3) a combination of personal response and standards and theory.

Adams (1995) attempted to answer the question of what use are portfolios in education. She believes portfolios offer teacher educators in teacher preparation programs a distinctive way of collecting artifacts that are samples of authentic, nontraditional assessment information about the teacher candidate. The implementation of academic portfolios in teacher preparation programs, give teacher educators and teacher candidates a chance to experience authentic assessment. Teacher educators can additionally collect nontraditional assessment information regarding teaching and learning in the pre-service education program through the selection of artifacts. Adams also believes in order for academic portfolios to be successful, the assessment purpose must be clearly communicated to teacher candidates.

Zeichner & Wray (2001) discovered in their research and review of research that “Despite the current popularity of teaching portfolios, there have been very few

systematic studies of the nature and consequences of their use for either assessment or development purposes” (p. 615).

Portfolio Development

In Barrett’s (2000a, 2000b, 2005) Bullock & Hawk’s (2001) research, they attempt to define what a portfolio should accomplish in education. Paulsen et al. (1991) believes portfolios should tell a story about the author. Zubizarreta (2004) believes:

The primary motive of the learning portfolio is to improve student learning by providing a structure for students to reflect systematically over time on the learning process and to develop the aptitudes, skills, and habits that come from critical reflection (p.15).

Barrett (2000a) Bullock et al. (2001) and Paulsen, Paulsen & Meyer (1991) strongly believe portfolios should have a specific defined purpose, developed for a specific audience and should contain evidence in artifacts selected by teacher and student as well as personal reflections. Barrett (2005) who has spent the last thirteen years researching, using and developing education portfolios also reasons there are three major components to portfolios whether they are electronic or in a hard copy paper format.

Barrett (2004) believes the first component is the purpose of the portfolio. The purpose will dictate what artifacts will be selected and placed within the electronic portfolio. The teacher candidate must know the reason and understand the purpose for which he or she is developing the portfolio. Knowing the reason and purpose for the portfolio will allow for the teacher candidate to select artifacts wisely.

The following questions are helpful in determining the purpose of a portfolio; will the portfolio be used to demonstrate learning, and as an assessment tool?

If the portfolio will be used to demonstrate learning, then the framework in which teacher candidates will be evaluated must be determined and shared with all participants before the implementation of the academic portfolio. Teacher candidates as well as instructors must know how the artifacts will be selected.

If the portfolio will be used for assessment, then the type of assessment must be determined prior to the implementation. Will the portfolio be used as a self-assessment tool, program assessment, or for future employment? Before beginning to create the portfolio the teacher candidate must know the audience. Once these questions have been answered a meaningful purpose will materialize and the teacher candidate may embark on the creation of the portfolio.

Barrett's (2004) second component is the content of the portfolio. The following questions are helpful in determining what artifacts should be selected for inclusion in the portfolio. Will the artifacts selected for the portfolio demonstrate evidence that standards have been met? If so, then how will the teacher candidate justify the reason for selection? Again, once these questions have been answered artifact selection may occur while the teacher candidate keeps the purpose of the portfolio in the forefront of his or her thought processes.

Barrett's (2004) third component is the process of developing the portfolio. The following questions will help in determining what type of portfolio should be created; will the portfolio be paper or electronic? If the portfolio is electronic what medium will be used? Will the electronic portfolio be web-based? What will

determine the sequence of the portfolio? Are rubrics involved? Are reflections a part of the portfolio?

When creating the use of portfolios in a classroom or teacher preparation program it is crucial to make sure goals and reflections are tied together. Mullen et al. (2005) states,

Although a primary goal for your portfolio is to provide a vehicle to demonstrate that you have met objectives and goals of your teacher preparation program, another important objective is the emphasis on reflection and your development as a future educator over time (pp. 19-20).

The reflection piece of the portfolio provides the teacher candidate an opportunity to engage in self-assessment. True growth cannot take place without reflection and self-assessment.

When reflections are used the teacher candidate must pay attention to their written communication skills. Kimball (2003) believes “To create successful portfolios, then, authors must practice rhetoric – the art of convincing someone about something” (p. 20). Selected artifacts in the portfolio will provide the teacher candidate with a voice. This voice will communicate in a strong manner to the reviewer and/or audience if all requirements are met. Kimball (2003) maintains a good portfolio will explain the context of the selected artifacts clarifying the process in which artifacts were developed and that a really good portfolio will give an honest and convincing self-assessment. Self-assessment is a hallmark of quality teaching.

Norton-Meier (2003) addresses the issue of rethinking writing and reflection. Writing reflections will no longer look the same as they did in the paper portfolio

format. Norton-Meier believes that with the implementation of electronic portfolios teacher candidates must write narratives to tell this story about the selected artifacts. She also believes the manipulation of the technology and the way teacher candidates incorporate graphics, as well as the way artifacts are linked together plays a large part in the story the teacher candidate is intending to tell. Norton-Meier also believes that even the color scheme selected – is also a part of the reflection process. The teacher candidate, when making decisions about the format of the electronic portfolio, is communicating with the reviewer with more than just words. Every decision and choice made by the teacher candidate is communicating something to the reviewer. That is why it is vital for the reviewer not to be intrigued by the “bells” and “whistles” of technology.

Difficulty may arise for the teacher candidate when selecting artifacts. There are a plethora of artifacts that teacher candidates can select from and keeping in mind the purpose of the portfolio will help to make positive decisions. More inclusion of artifacts, does not demonstrate a better teacher candidate. Less inclusion of artifacts can often times can be more enlightening of the strengths of the teacher candidate. Hill (2003) concurs, “Limiting artifacts, the confirming evidence, to no more than two or three for each standard emphasizes quality over quantity” (p.260). Kimball (2003) suggests portfolios show concrete proof of abilities.

Rather than simply claiming that you have learned something – for instance, good communication skills – you can use a portfolio to show the fruits of your skills – such as an example of good communication in the form of a document you have written (p. 7).

Teacher candidates must be shrewd when selecting artifacts. Read & Cafolla (1999) stated in their research the following thought.

Pre-service teacher portfolio is a developmental record; it seeks to capture an individual's capabilities over time. Portfolios reveal growth and performance in areas such as planning, instruction, teaching strategies, classroom management, community service, self-reflection, cross-cultural experiences, and professional activities under a variety of conditions (p. 99).

Claywell (2001) noted, "Instructors who read portfolios as a regular part of their duties, however, often find that student writers do not always understand the exact purpose of the portfolio, what should be in it, or how it should be presented" (p.1). It is important that the goals and purposes of the electronic academic portfolio be placed in the hands of teacher candidates from the very beginning of the teacher preparation program.

Most portfolios in education are based on professional and/or content standards built within the framework of a teacher education program. A portfolio without standards often becomes just a collection of artifacts without a purpose or meaning. Kimball (2003) believes "Standards are generally qualitative criteria by which artifacts will be judged" (p. 21). Mullen et al. (2005) asserts INTASC standards or principles, (Appendix C), created by the Interstate New Teacher Assessment and Support Consortium "describe what every beginning education professional should know and be able to do, including a description of the knowledge, disposition, and performance expected of new classroom teachers" (p. 41).

Electronic Portfolios

Electronic portfolios have become prominent in the field of education (Wetzel and Strudler, 2006). Due to the fact electronic portfolios are storage friendly and easily accessible to multitudes of people at one time. Kilbane and Milman (2003) address two trends influencing the digital portfolio movement. “These trends are the increased need for effective measures of educational quality and efforts to enhance teacher professionalism (p. 13).

Kilbane and Milman (2003) have joined forces to help teachers and teacher candidates create useful and beneficial digital portfolios. Kilbane and Milman (2003) main interest is educational technology and implementing technology into teacher preparation programs. Kilbane and Milman (2003) research has focused on the use of technology in the elementary school. The research leads to increased importance of integrated technology throughout teacher education programs. Kilbane and Milman (2003) present a plan for teachers and teacher candidates to use teaching portfolios to celebrate their professional growth and help others recognize their accomplishments.

When creating a plan for implementation of electronic portfolios it is necessary to consider the multidimensional purpose. Mullen et al. (2005) “First and foremost, digital portfolios provide opportunity to understand, articulate, and demonstrate growth as a future teacher in relation to teaching standards and program goals” (p.29).

Folio-Live (McGraw Hill, 2002) is one of several pre-packaged, web-based portfolios that can be purchased by the teacher candidate on a yearly basis. With the initial purchase of a web based portfolio program, the teacher candidate buys space to

use on a server. After the initial purchase price for the first year there is an annual renewal fee. If a teacher candidate chooses not to continue or was removed from the teacher education program, the portfolio would not have to be renewed.

Folio-Live (McGraw Hill, 2002) has pre-made templates that can be used by the teacher candidate to create a portfolio. The institution developed an academic framework based on the University Professional Knowledge Base (Appendix B). Instructors require teacher candidates to upload specific artifacts to the electronic academic portfolio. The remaining artifacts are teacher candidate selected.

Using the Web as a portfolio medium builds on some of the key strengths of portfolio pedagogies. Most obviously, whereas traditional, paper portfolios have concentrated on presenting written work, web technologies allow portfolio authors to include graphics, audio, and video, giving them more options for showing what they have accomplished (Kimbal and Milman, 2003, p. xvi).

Teacher candidates are able to demonstrate technology skills by including selected technology based artifacts.

A web-based portfolio works in several ways. Students may purchase space from a commercial program that allows the student to pay an initial fee with yearly renewal fees available if the student desires to keep the portfolio active. This requires little technology skills and allows the student to basically fill in the blanks from a chosen template. There are some commercial programs that allow students to have more personal freedom to create a portfolio that demonstrates his or her personality.

This allows teacher candidates to share their electronic portfolio with virtually anyone who has access to the Internet. (Kilbane and Milman, 2003)

Kimbal (2003) conveys “Web portfolios are so flexible that they are pedagogically and professionally valid on a variety of levels, from primary to professional” (p. xix). He believes there are four reasons why teacher candidates should choose to use a web-based folio system. First, creating a web portfolio shows what you have learned. Second, creating a web portfolio gives you a real audience. Third, creating a web portfolio can help you reflect on what you have learned and, finally, the web is a practical way to make portfolios. Hill (2003) reveals “these ‘pre-designed’ web pages allow teacher candidates to focus on substance rather than on show, leaving reviewers to concentrate on content rather than style”. Folio-Live (McGraw Hill, 2002) does give teacher candidates the opportunity to be creative with their web design if they so choose.

Advantages to Digital Portfolios

Weidmer (1998) believes “the use of electronic portfolios is gaining in popularity as educators and businesspeople alike are discovering the benefits as a means of validating individual performance.” There are more options and possibilities available with the implementation of electronic portfolios. Teacher candidates as well as teachers and students are able to demonstrate technology skills. Kilbane (2003) believes “Teachers can benefit personally and professionally when using digital tools to facilitate the creation of teaching materials, the selection of professional artifacts, the organization of information, the packaging of professional work, and the sharing of materials in a portfolio with others (p. xiv).

Kilbane (2003) goes on to state several advantages of digital portfolios over traditional paper portfolios. One advantage is the accessibility and portability of electronic portfolios. They can be reproduced easily and placed on a CD, or even a web site. Weidmer (1998) notes that creativity, and technology skills can be demonstrated through the use of electronic portfolios. He believes the digital portfolio is more than an electronic filing cabinet used to store artifacts.

Barrett, (2000a) who has done extensive research in the area of portfolios in education gives several benefits of developing electronic portfolios over paper portfolios:

- minimal storage space
- easy to create back-up files
- portability
- long shelf life
- learner-centered
- increases technology skills
- through hypertext links it is easier to make argument that certain standards are met
- accessibility (n. pag.)

Mullen et al. (2005) believes “A primary benefit therefore of a digital portfolio is that in the process of creating your portfolio, you are learning important technical skills that can be transferred and applied to other areas of your academic, professional, and personal life” (p. 28). Kilbane (2003) believes, “The creation of

digital teaching portfolios can act as a catalyst for teacher development in the area of technology. During the portfolio production process teachers have legitimate reasons to use technology equipment in meaningful ways” (p. 24). Electronic portfolios are a way to infuse technology into education in a meaningful and purposeful manner.

Teacher candidates often need encouragement when embarking on new technology skills. It is the desire to use the academic electronic portfolio to further enhance the use of technology skills throughout the program and into the future career of teacher candidates. Mullen et al. (2005) believes “Learning technical skills while you are building your portfolios, as compared with learning discrete computer skills separate from any real purpose of doing so, is a powerful model” (p. 28)

Lynch (2004) believes, “Portfolios were viewed as beneficial in making connections between theory and practice and as a step toward developing a professional portfolio for career purposes. Digital portfolios, such as Folio-Live (McGraw Hill, 2002), allow the teacher candidates at the institution to give permission to professors to view their portfolio throughout their educational career. Both the teacher candidate and the professors can then see professional growth of the teacher candidate.

Disadvantages of Electronic Portfolios

Zubizaretta (2004) notes teacher candidates must be aware of the disadvantages to electronic portfolios. The teacher candidate must have access to a computer and to the Internet. There are high-end tools, needed for text, voice, video, and imaging. The loss of artifacts due to technical problems can also be detrimental.

Electronic portfolios can be labor intensive, and the teacher candidate must have knowledge of technology skills. Hill (2003) voices a strong concern that “Dancing pictures and spiraling words can camouflage the lack of content”. Campbell et al. (2004) reasons “The addition of multimedia artifacts provides the portfolio reviewer with a far richer and more complete picture of you as growing or accomplished professions” (p. 19).

It is also vital to differentiate between artifacts to ensure fitting content and purpose to meet objectives. Frequently many artifacts are selected in order to ensure or guarantee quantity rather than looking for quality artifacts to demonstrate a specific purpose and or objective. Thoughtful reflection is necessary during artifact selection.

The decision to implement the use of a commercial product can also create financial hardships on teacher candidates. If students were allowed to create their own electronic academic portfolio the financial aspect of the portfolio would be eliminated. However, lack of continuity between students could distract from the purpose of the portfolio causing some teacher candidates who have stronger technology skills to hide behind the technology.

There are many barriers educators face when implementing electronic portfolios in education. McKinney (1998) notes several challenges she encountered in using electronic portfolios with pre-service teachers.

- (a) Lack of time – time to learn about both the mechanics and the potential, and time to experiment in supportive environments;
- (b) Little support (both technical expertise as well as support from peers and administrative structures); and

(c) Limited and always changing resources – materials, software, hardware, funding.

In order for electronic portfolios to be successful in teacher education programs these challenges must be addressed.

Assessment of Electronic Portfolios

Lynch & Purnawarman (2004) conclude “Authentic performance assessments are based on direct examination of a subject involved in performing tasks or creating projects” (p. 52).

One unique aspect of the electronic portfolio assessment is the demonstration of critical thinking through reflective writing about artifact construction, selection and revision. The learner’s reflections are the rationale offered from the student to support the inclusion of specific artifacts to represent attainment of competencies (p. 53).

Lynch & Purnawarman (2004) also believe the success of a portfolio as a reliable indicator of competence is established through the established guidelines to rate each artifact accurately. The institution has developed a formative rubric and a summative rubric to be used when assessing teacher candidate portfolios. The formative evaluation (Appendix D) happens just prior to admission to teacher education. The summative evaluation (Appendix E) occurs prior to the professional semester.

Norton-Meier (2003) believes a benefit of the portfolio has been that it demonstrates what teacher candidates do know rather than what they do not know. Teacher candidates at the institution have the opportunity to present evidence that

exhibit their progress towards meeting the University Professional Knowledge Base indicators. Norton-Meir (2003) continues, “If we are going to collect data about our program’s effectiveness, it is essential to consider a strategy or method that will allow students to demonstrate their unique experience within the collective nature of program goals” (p.518).

Assessment is critical in the area of education and teacher preparation. Read et al. (1999) states that “...many educators have come to the conclusion that traditional assessments do not provide an adequate means of evaluation for pre-service student progress.” With this guiding thought more teacher preparation institutions are moving towards portfolios. More research however, is needed to determine teacher candidate perceptions.

Summary

As research continued, more questions arose and these additional questions will be addressed in the researchers further recommendations discussed in chapter five. Norton-Meir (2003) understands “The portfolio process recognizes that teachers, too, are developmental beings who construct their knowledge and understanding” (p. 518). It is understood that teacher candidates will change and continue to grow professionally throughout their career at the institution. McKinney (1998) believes:

In dealing with portfolios in teacher education programs, we need to see further longitudinal work related to how portfolios are used, including their effectiveness, how to structure their development and how to support their use

in individual courses and through programs. In doing so, it is important to involve students in the process (p.103).

The research conducted and reviewed through the literature study describes why the uses of electronic academic portfolios are beneficial for assessment purposes. However, the reason of this study was to investigate the creation of the electronic academic portfolio and the perceptions from the teacher candidate's perspective.

CHAPTER 3

METHODOLOGY

I believe teachers should model what they teach. I encourage all of my students to be the best they can be in and out of the classroom. I believe it is important to always do what is right.

This chapter describes the research methodology employed. The study used qualitative methodology in order to examine the central research question: To what extent do teacher candidates perceive value in the process of constructing electronic academic portfolio? The subsidiary questions will also be explored:

What steps did the teacher candidate use in the process of putting together his or her electronic academic portfolio?

What value did teacher candidates assign to each of the steps in the process of the creating an electronic academic portfolio?

What extent do teacher candidates demonstrate pride, organization and technology skills in his or her academic portfolio?

The researcher examined these questions by conducting one-on-one interviews with teacher candidates as well as pre and post surveys, and field notes from discussion boards conducted on course management software.

The researcher used qualitative research methodology creating individual case studies for each of the eleven participants in this study. Cresswell (2002), states that

“qualitative research is fundamentally interpretive. This means that the researcher makes an interpretation of the data” (p.182). Meaning

Pilot Study

A pilot study was conducted with twenty-three teacher candidates participating in the study during the spring semester of 2005. Teacher candidates presented their electronic portfolio and were asked to show five specific artifacts to the researcher. The researcher followed a pilot study interview protocol (Appendix F). As time allowed the teacher candidate shared other artifacts and thoughts. The researcher took field notes during the presentation, gathering comments and perceptions from teacher candidates. Individual interviews took place following the presentation of the electronic portfolios asking the following questions:

1. How did the electronic portfolio influence the role that you played in your own assessment and evaluation process?
2. How did the electronic portfolio help you assume more responsibility for your own learning?
3. How did the electronic portfolio help you experience the relationship between effort and results?
4. What frustrated you with the electronic portfolio?

The researcher recorded responses to be transcribed, analyzed, categorized and coded at a later date by the researcher and one additional reader. Preliminary findings of the pilot study found several distinct commonalities and themes in the teacher candidate perception responses.

The first commonality discovered through the pilot study is the sense of pride in teacher candidate work. Teacher candidates commented repeatedly throughout the presentation and interview session that they took more time on artifacts they knew they were going to upload to the academic portfolio. Teacher candidates also mentioned they were proud of their completed electronic academic portfolio and were pleased to share their accomplishment in creating a portfolio.

In addition technology skills were mentioned throughout the presentation and interview sessions. Teacher candidates who felt uneasy at the beginning of the electronic academic portfolio process began to feel more confident about using the commercial program. Teacher candidates expressed growth in technology skills and were able to apply these skills in a meaningful manner. Several teacher candidates strongly voiced that the lack of technology background was a problem when creating the portfolio.

The third theme during the pilot study was organization and professional growth. Teacher candidates believed they were more organized during their coursework in order to make sure they were able to upload artifacts to the electronic academic portfolio.

The following three themes as defined will be used in the current research project:

- Pride – Sense of accomplishment, making sure work is ready to be showcased.
- Technology skills – a manner of accomplishing a task especially using technical processes, methods, or knowledge (Merriam-Webster, 2005)
- Organization – The act or process of organizing (Merriam-Webster, 2005)

The researcher will include one additional theme.

- Value - Relative worth, utility, or importance (Merriam-Webster 2005)

Value has been added to the themes in order to examine the preliminary research question: To what extent do teacher candidates perceive value in the process of creating an electronic academic portfolio?

Teacher candidates made positive comments as to the use and implementation of the electronic portfolio system. Overall, the perception of teacher candidates was that the implementation of the electronic portfolio was beneficial and they would continue to use the electronic portfolio in the future.

The electronic academic portfolio is introduced in the Introduction to Education course which is the first education class teacher candidates take at the institution. The first formal assessment of the electronic academic portfolio occurs at the end of this course (Appendix D). There are a series of informal checks throughout the program. University professors check electronic portfolios at the end of each education course to ensure artifacts are uploaded correctly. The second formal assessment occurs prior to admittance into the professional semester (Appendix E).

Teacher candidates are expected to create a second electronic portfolio during the professional semester with a series of required artifacts selected by university professors. The teacher candidate is then expected to self-select the remaining artifacts to complete the professional portfolio. The purpose of this electronic professional portfolio is to demonstrate that the teacher candidate has the skills

necessary to be an effective teacher in the classroom. Teacher candidates may select and include artifacts from the academic portfolio.

Teacher candidates did voice varying degrees of frustration with the electronic portfolio system. There were a few teacher candidates who stated they found no value in putting together the electronic portfolio. The electronic portfolios of teacher candidates that found no value contained artifacts that were determined basic and unsatisfactory by the evaluating faculty. The reflection pieces included in the electronic portfolio were minimal at best and teacher candidates believed there was not a meaningful purpose for creating an electronic portfolio.

The pilot study allowed the researcher to amend and refine questions for the initial interview with teacher candidates.

Site Selection

The subjects of this study come from teacher candidates in a College of Education in southeast Kansas. This institution is one of six regent schools in Kansas with an average enrollment of 5,566. Over the past five years the College of Education graduated an average of 210 education majors each year. On average, the institution graduates 116 elementary education majors and 94 secondary education majors. The institution has a growing number of non-traditional students enrolled each year as well as an increase in the number of non-degree seeking students who already have a Bachelor's degree in another area and are choosing to come back to school in order to earn licensure to teach in Kansas.

The researcher selected this site to conduct the research project because the institution implemented the use of an electronic academic portfolio in the fall of 2002.

The institution in the past used a paper format of an academic portfolio from 1990 through the spring 2002 semester. Teacher candidates were required to purchase a four inch binder when they entered the teacher preparation program and collected artifacts throughout his or her college career. The binders become cumbersome and difficult for teacher candidates to manage. With the implementation of the PT3 grant, one of the goals for the institution was to ensure teacher candidates were able to use technology and the electronic portfolio initiative was conceived within this framework in 2002.

Participant Selection

Teacher candidates were selected to participate in this study by presenting the study in a restricted methods course at the institution and requesting interested volunteers to attend an informational meeting. The researcher was anticipating ten participants and there were eleven teacher candidates who volunteered. The researcher decided to include all of the eleven teacher candidates that volunteered to participate in the study. The teacher candidates that chose to participate were going to enter the professional semester during the next semester.

Methodological Framework

In this study interpretative research was conducted with the researcher observing and analyzing teacher candidate experiences and perceptions throughout the interviews, surveys, electronic journal and electronic academic portfolios. Cresswell (2002) believes “Assumptions identified in these works hold that individuals seek understanding of the world in which they live and work” (p. 20). In

order for teacher candidates to perceive value he or she must first have an understanding that new knowledge builds upon prior knowledge.

Understanding the student perceptions of value in this study required qualitative research methodology. Schwandt (1997) notes qualitative research contains “an inherent or phenomenal property or essential characteristic of some thing (object or experience)” (p.130). It is this focus on experiences viewed in total that should provide a rich portrait of the phenomenon under investigation. The researcher will be looking at the experiences and perceptions of teacher candidates in creating the electronic academic portfolio.

Role of the Researcher

The role of the researcher in this study collected all data for the eight-week study and was the primary instrument for analysis and interpretation of the data. The researcher gave a pre-survey given electronically on Blackboard and a post-survey given with paper and pencil. The researcher also conducted three one-on-one interviews with teacher candidates. The first interview has pre-determined questions (Appendix H) developed by the researcher to begin to discover perceptions of value from the teacher candidates. The first interview guided the creation of questions for the second one-on-one interview (Appendix I). The first and second interviews with teacher candidates guided the creation of questions for the third one-on-one interview (Appendix J). The researcher transcribed three interviews. The researcher selected and trained a second reader to assist in the coding of the transcribed interviews. The second reader was a professor in the field of education.

The researcher composed a case study for each of the eleven participants in based on Cresswell's (2002) recommendations for qualitative research. The researcher wrote a description of each participant and analyzed the data for themes and drew conclusions about meaning. Cressewell (2002) states that during qualitative research it "means that the researcher filters the data through a personal lens" and "one cannot escape the personal interpretation brought to qualitative data analysis" (p. 182). The researcher will serve as a participant observer.

Case Study Research

Case studies have been used in medical fields as well as in the area of law (Tellis, 1998). According to Seale et al, (2004) Harvard University is one of several higher education institutions that have implemented the use of case studies.

The researcher used multiple case studies in order to gain insight into the perceptions of teacher candidates during the creation of academic electronic portfolios. The selection of multiple case studies is to ensure replication. Tellis (1998) believes "Multiple cases strengthen the results by replicating the pattern-matching, thus increasing confidence in the robustness of the theory." The researcher chose to conduct intensive interviews with eleven teacher candidates to get a more clear perception than with the 23 teacher candidates in the pilot study.

The case studies took place during an eight-week period of time during the semester prior to the professional semester. Stake (1995) believes cases need to be bound by time and activity.

Case studies will be created for each of the teacher candidates participating in the study. The researcher selected the use of case studies for this study in order to gain student perceptions in his or her own voice.

Case studies are multi-perspective analyses. This means that the researcher considers not just the voice and perspective of the actors, but also of the relevant groups of actors and the interaction between them. This one aspect is a salient point in the characteristic that case studies possess (Tellis, 1997, n. pag.).

It was the intent of the researcher not only to consider artifacts in the final electronic portfolio but also to discover the teacher candidate's perspective of value through his or her voice in the answers and description of the process.

According to Yin (1994), "A case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident" (p. 13).

The researcher attempted to discover teacher candidate's perceptions of creating and electronic academic portfolio through the process of interviews, and surveys.

Schwandt (2006) believes that the case study seeks to discern and pursue an understanding and continues to argue that

a case study strategy is preferred when the inquirer seeks answers to how or why questions, when the inquirer has little control over events being studied, when the object of study is a contemporary phenomenon in a real-life context, when boundaries between the phenomenon and the context are not clear, and when it is desirable to use multiple sources of evidence (p. 13).

The use of case studies based on Bruner's constructivist theory, then, will guide this research project. Bruner (1966) believes that students' predisposition towards learning will affect how learning will take place. Case studies will be practical and beneficial to reflect and analyze the data gathered from teacher candidates participating in the study. Stake (1995) believes the principal reason for selecting case study research is to seek to generate knowledge of the particular.

The use of the case study allows the researcher to give "detailed examination of one setting, or a single subject, a single depository of documents or a particular event" (Bogden & Bilken, 2003, p 54). Stake (1995) also considers the use of case studies to be beneficial when seeking to understand a particular problem, issue, and or concept.

Research Design

The researcher worked with the a teacher candidate supervisor and his or her randomly assigned teacher candidates by the Assistant Director of Teacher Placement, who represented at least one of the following teacher candidate categories; non-transfer, transfer, elementary, gender, traditional, non-traditional. There were eleven participants all of whom were Early/Late Childhood K-6. The researcher, from the information gathered throughout the professional semester, selected eleven individual case studies.

When teacher candidates were initially selected they met with the researcher on campus during the final semester prior to the professional semester. The researcher explained the process and requirements of the study and answered questions from the teacher candidates. The researcher had each teacher candidate sign an informed

consent (Appendix N). If a teacher candidate believed he or she was unable to participate, another randomly selected teacher candidate would have been chosen. The researcher will followed Creswell's (2002) six guidelines to protect research subjects during the study (Appendix K).

The researcher created a Blackboard course in order for teacher candidates to easily communicate with the researcher when he or she was not on campus. The researcher used Blackboard to collect data from online surveys, discussion boards and self-reflection. The researcher sent teacher candidates a letter describing the process (Appendix L). Teacher candidates completed an initial teacher candidate perception survey (Appendix M) on Blackboard and a post teacher candidate perception survey on paper. The initial survey and post survey were based on a pilot study survey given in the spring of 2005.

Data Collection

Teacher candidates selected to participate in the study were asked to keep an electronic journal describing his or her perceptions of the Folio-Live (McGraw Hill, 2002) process. The electronic journal was based on focus questions given to the teacher candidates by the researcher. The electronic journal was coded according to previously defined categories included in the case study.

Interviews were conducted throughout the final semester prior to the professional semester to further determine how teacher candidates reacted to engaging in deep reflection as part of their academic portfolios. The researcher conducted three interview sessions in order to make sure the data gained is the correct response, feeling, and perceptions of the teacher candidates selected to be

interviewed. The second and third interviews addressed some of the same questions from the first interview worded differently in order to authenticate the answers from the initial interview session.

The first round of interviews (Appendix J) were conducted one-on-one at a mutually agreed upon time and place during weeks one and two of the final semester prior to the professional semester. The first interview had a set of pre-determined questions (Appendix J) created by the researcher following Fowler's (1995) think aloud guidelines (Appendix O) asking teacher candidates to paraphrase their understanding of the question. Each interview was tape recorded and transcribed to ensure accuracy. The researcher and one additional reader in a predetermined method coded the responses in order to expose commonalties and recurring themes without researcher bias.

The second round of interviews (Appendix K) were conducted one on one and took place at a mutually agreed upon time and place during weeks three and four of the final semester prior to the professional semester. Predetermined questions with additional questions derived from responses during the first round of interviews. Each interview was tape recorded and transcribed to ensure accuracy. The responses were coded by the researcher and one additional reader.

The third round of interviews (Appendix L) were conducted and took place at a mutually agreed upon time and place during weeks five and six of the final semester prior to the professional semester and will focus on predetermined questions with additional questions derived from responses during the second round of interviews.

Each interview was tape recorded and transcribed to ensure accuracy. The responses were coded by the researcher and one additional reader.

Field notes, gathered from interactions with teacher candidates were collected during the research study to guide the researcher during the second and third interview sessions as well as focus questions for the teacher candidate journal. Transcribed interview responses from each teacher candidate participating in the study as well as coding results from the researcher and the additional reader were included in the case study. Reflections from teacher candidates collected from Blackboard as well as initial and post surveys and the electronic portfolio burned to a CD were also included.

Data collection happened during an eight-week period of time during the semester prior to admittance into the professional semester. Data collection came from pre and post teacher candidate perception surveys given to teacher candidates during the initial meeting with the researcher (Appendix M). The information gathered from the initial and post teacher candidate perception surveys are placed into a chart in order to visually examine the results of teacher candidate initial and post perceptions. The survey results (Appendix P) were used to compare with the answers from the interviews with teacher candidates. The teacher candidates participated in three intensive one-on-one interviews with predetermined sets of questions being asked by the researcher. The researcher tape recorded and transcribed interviews. Teacher candidates kept reflective electronic journals during the portfolio process. The researcher reviewed the electronic journals and artifacts located in teacher

candidate portfolios. The electronic journal was based on the following focus inquiry statements.

1. Describe the process you used to create your electronic academic portfolio.
2. Describe your personal frustrations with creating your electronic academic portfolio.
3. Describe your personal triumphs with creating your electronic academic portfolio.

During this study the researcher and the teacher candidates learned from one another in a community of learning.

Data Analysis

The analysis of the data took place throughout the final semester prior to the professional semester, during which time teacher candidates were taking his or her last five restricted methods courses. The researcher recruited one additional reader in the field of education. The additional reader recruited to help code the transcribed interviews was a professor in the College of Education at the institution the research study was conducted. The reader was trained prior to the actual coding day by the researcher to identify themes from the pilot study.

- Theme A: Pride
- Theme B: Organization
- Theme C: Technology Skills
- Theme D: Value

- Other

The commonalities were coded by the reader and the researcher.

Additionally, this study utilized Danielson's (1996) Framework for Teaching in order to determine the professional preparation perceptions of teacher candidates. Danielson (1996) believes, "The most powerful use of the framework, and one which should accompany any other use, is for reflection and self-assessment. Research has clearly demonstrated the effects of reflection on improved teaching" (p. 53). The researcher intends to determine to what effect the four domains of professionalism as defined by Danielson (1996) are addressed through the perspective of the teacher candidate in the academic electronic portfolio.

1. Planning and preparation:
2. Classroom environment:
3. Instruction:
4. Professional responsibilities

During the study the researcher analyzed and coded interview responses, and artifacts looking for commonalities and themes between the teacher candidates. The coding in this project was based on themes discovered in the pilot study; pride, organization, technology skills as well as Danielson's (1996) Framework for Teaching with four distinct teaching domains; planning and preparation, classroom environment, instruction, and professional responsibilities. The researcher also included the perception of value.

The reader was trained prior to the actual coding day by the researcher to identify Danielson's (1996) domains and the themes from the pilot study. The

researcher provided the additional readers with directions for coding (Appendix Q) as well as supplies for coding. The coding took place with the readers working in the same classroom as the researcher in case a question arose. The reader was given a copy of each transcribed interview of each teacher candidate. The reader was asked to examine the transcriptions highlighting comments depicting each domain according to the list below:

Yellow: Domain 1 – Planning and Preparation

Blue: Domain 2 – Classroom Environment

Orange: Domain 3 – Instruction

Green: Domain 4 – Professional Responsibilities

After the initial coding has taken place the reader was asked to look at the original codes and cross code comments depicting each theme according to the list below:

P: Theme A – Pride

O: Theme B – Organization

T: Theme C – Technology Skills

V: Theme D – Value

O: Other

After the final coding occurred the researcher organized the data in tabular form.

Table 3.1 is a sample chart that was used by the researcher and the additional reader.

Table 3.1
Sample Coding Chart

Domain 1 Planning & Preparation					
Domain 2 Classroom Environment					
Domain 3 Instruction					
Domain 4 Professional Responsibilities					
	Theme A Pride	Theme B Organization	Theme C Technology Skills	Theme D Value	Other

Graphs were generated from the coding to create a visual representation of the themes and domains and are discussed in chapter four within the individual case studies. Following is a list of the case study contexts (Stake, 1995) used to describe each participant.

- An entry vignette giving a description background of each participant
- A profile of each study participant teacher candidate perception survey
- A profile of each study participants interviews
- A description of themes revealed
- A description of the electronic academic portfolio
- Researcher insights described as they relate to the observations and analysis of the surveys, transcripts from the interviews, and review of the electronic academic electronic portfolio

The researcher attempted to protect the anonymity of the teacher candidate research participants by assigning pseudo names. Information gained from the teacher candidates will in no way affect his or her degree completion at the institution. However, the information gained during this study has been used in order to determine the perceptions of teacher candidates on the process of creating electronic academic portfolios. Information gained will guide further implementation guidelines for the institution.

Potential Contribution

Teacher education programs across the United States are under pressure to ensure teacher candidates are qualified before being placed in the education work force. With the emphasis from “No Child Left Behind” on highly qualified teachers in every classroom, teacher preparation programs are looking for a valid way to make certain teacher candidates can demonstrate their abilities to be a teacher prior to their first job placement.

Results from this study will be shared with colleagues in the form of presentations and possibly a journal article. The results will be used help to guide teacher preparation programs in the area of electronic academic portfolios.

CHAPTER 4

ANALYSIS OF THE DATA

I believe in order to be a great teacher we must experience reflection and self evaluation. Deep reflective thinking about who we are as a teacher and why we do the things we do in the classroom can make us a better teacher. Maya Angelou once said, “Something made greater by ourselves, in turn, that makes us greater”.

“What interests me is trying to catch the reflection of the human being on the page. I'm interested in how ordinary people live their lives” (Kidder, 2000).

Overview

This chapter consists of an individual case study description for each of the eleven participants as completely as the study allows. Pseudonyms were assigned by the researcher to ensure the anonymity of participants in the study. The purpose of the case study is to give insight and to describe the uniqueness of each individual teacher candidate and his or her perceptions of creating an electronic academic portfolio. Each case study will include a description of the interviews as well as selected quotes from teacher candidates, and these quotes will be block form.

Following is a list of the case study contexts Stake (1995) argues should be used to describe each participant.

- An entry vignette giving a descriptive background of each participant
- A profile of each study participant teacher candidate perception survey
- A profile of each study participant's interviews

- A description of themes revealed
- Researcher insights described as they relate to the observations and analysis of the surveys, transcripts from the interviews, and review of the electronic academic electronic portfolio

The researcher will include a description of the electronic academic portfolio.

This chapter also contains a comparison analysis of the data gathered in the eight-week modified study of the teacher candidates participating in this study. The case studies give individual information while the researcher will compare the cases to add depth and perception in the study at the end of this chapter.

The Teacher Candidate Perception Survey (Appendix M) was given to teacher candidates as a group on Blackboard at the beginning of the study. The data generated will be addressed along with graphs to depict overall answers from teacher candidates later in this chapter. The Teacher Candidate Perception Survey was given a second time to teacher candidates on paper to allow the researcher to review and evaluate answers for individual case studies at the end of the study and will be addressed within each case study description.

Case #1 – Christine – Tranquil Participant

Christine is a 20-year-old traditional age transfer student from a community college and is an Early/Late Childhood K-6 major with no minor. She currently has a 3.162 overall GPA and a 3.5 in major GPA. She will student teach during the fall 2006 semester. In class she is very quiet and does not socialize much with other students. Christine faced personal trauma during the past year as her sister was

diagnosed with Lymphoma and she has been a major care giver to her sister. Because of this she has developed a “get to the point” attitude and does not want to waste time.

Survey

Christine is a teacher candidate who feels she learned how to use Folio-Live (McGraw Hill, 2002) on her own with little outside support. Since Christine was a transfer student she participated in a transfer module introducing her to Folio-Live (McGraw Hill, 2002) and the purpose of the electronic academic portfolio. This transfer module was offered within her first clinical experience at the institution. The Teacher Candidate Perception Survey (Appendix M) provided information that depicts she is a self initiated learner and does not have a strong need to have others in order to be successful. She is, however, unsure of participating in formal training when learning how to use new technology. Christine believes herself to be confident in the area of technology and would rather learn new technology on her own, continuing with the premise of Christine wanting to be alone.

Christine is not sure the creation of an electronic academic portfolio will have any effect on her ability to teach in the classroom. However, when asked later in the survey if she will be a better teacher because of the creation of an electronic academic portfolio, she agrees. Folio-Live (McGraw Hill, 2002) has been easy for her to learn, and Christine believes she has made progress learning how to use and maneuver Folio-Live (McGraw Hill, 2002) even though she stated earlier in the survey she learned how to use Folio-Live (McGraw Hill, 2002) with little outside support.

Christine is very confident in the area of technology and is not afraid to use technology in front of peers. She does however agree with the thought that the

electronic academic portfolio is basically one more bandwagon in a long chain of education innovations which have made little impact on the world of education. In spite of this, she strongly agrees with the idea that her electronic portfolio demonstrates she is ready to become a teacher, and overall she is proud of what she has accomplished with the creation of the electronic academic portfolio.

Interviews

During the interview sessions, Christine was straightforward with her answers. Time is of the essence for Christine, and she wants to use her time wisely. She carries a planner and a cellular phone with an alarm to remind her of appointments, and she referred to the planner frequently during interviews. She is very proficient in her work; she expressed a strong desire to use time wisely and wants to do well in school. Christine demonstrated her aspiration for success with the artifacts included in her electronic academic portfolio.

In reviewing Christine's answers to the questions during interview number one, she revealed that she was very confident in working with Folio-Live (McGraw Hill, 2002). Christine expressed frustration with the overall organization of Folio-Live (McGraw Hill, 2002). The institution created a matrix for teacher candidates to use to create his or her electronic academic portfolio based on the University Knowledge Base (Appendix B). "The portfolio folders show even if you don't have something in each category. It is confusing." Christine did share some feelings of value in increased organization skills with creating the electronic academic portfolio.

I suppose it (electronic academic portfolio) has helped me become more organized. I now keep records of stuff (artifacts) on my e-mail account which is somewhat like Folio-Live (McGraw Hill, 2002).

Since realizing the importance of saving and organizing artifacts, she created and organized folders within her e-mail account to store artifacts from all of her classes before uploading to the academic electronic portfolio. Thus, Christine is able to have access to her artifacts whenever she needs them. If something should go amiss with her electronic academic portfolio, she is able to retrieve artifacts and make corrections or changes easily.

She now looks back and reflects on all of her artifacts from her classes to recognize where professional growth is taking place. She has benefited from the reflection process and believes her work is stronger and better now than when she began the education program.

The more effort I have put in to the electronic academic portfolio has made it look better. For example, I now put introductions for my sections which took some time but is worth it in the end when I show off my electronic portfolio.

During interview number two the researcher asked Christine to describe the purpose of an academic portfolio. Christine gave the following description. “An academic portfolio’s purpose is to keep a record of professional growth for the student and administration.” Christine demonstrates to some extent an understanding of the purpose of an academic portfolio.

After a couple semesters of using Folio-Live (McGraw Hill, 2002), I know how to fill out the introduction available before uploading. I definitely look over my work and think about what a potential employer would think.

Christine demonstrates an understanding of the purpose for reflection. She knows that in order for growth to occur she must look back at the artifacts she has created in the past and evaluate and assess what worked well and where changes need to occur.

During the third and final interview, Christine was asked how the process of creating an academic portfolio helps in the selection of artifacts for the professional portfolio created during the professional semester. “It [electronic academic portfolio] will help me be organized during the professional semester, and I will be able to review my artifacts and decide if they need to be rewritten or ready for my professional portfolio.” Not only did the creation of the academic electronic portfolio help in the area of organization, she believes the selection of artifacts represents a wide variety of subjects and knowledge she obtained during her college classes.

Christine was asked to address the idea of self-selected artifacts by teacher candidates rather than having strictly professor selected artifacts for the electronic academic portfolio.

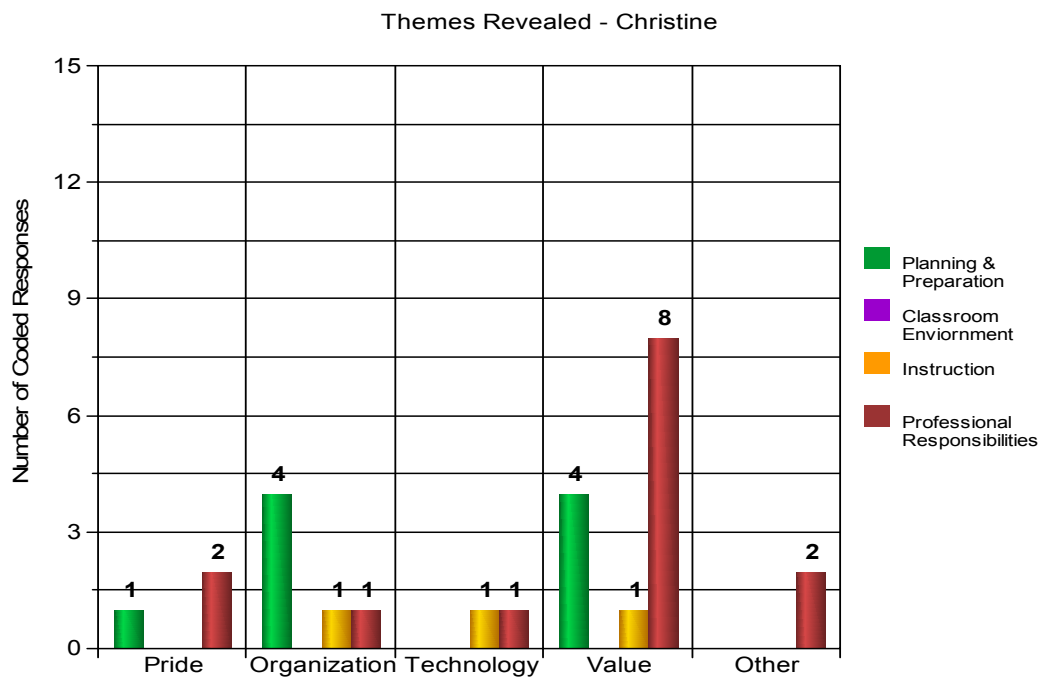
I think in your first couple of core classes, the teacher should pick out what assignments to put on there [electronic academic portfolio] so that the student can get a good idea of what to put on there (electronic academic portfolio. Even in your methods classes, teachers should at least suggest which ones [artifacts]

to put on there. By this point [the semester before professional semester] the students should know what needs to be put in the folio [electronic academic portfolio].

Themes Revealed

Christine expressed value in the domain of planning and preparation as well as in the domain of professional responsibilities. Figure 4.1 illustrates themes revealed during the three interviews with the teacher candidate. The interviews were transcribed and coded in a coding chart (Appendix L) and then placed into a bar graph.

Figure 4.1
Themes Revealed – Christine



Christine scored high in value in the domain of professional responsibilities. She believes strongly that to be a successful teacher candidate it is important to “remain professional in all areas even if you do not understand why at the time.” Organization

is a key factor that runs throughout Christine’s life as demonstrated by the use of a planner.

Electronic Academic Portfolio

Christine’s electronic academic portfolio is very professional and she met all expected requirements for the electronic academic portfolio. Christine earned an overall rating of 3.33 on a five point scale for the electronic academic portfolio (Table 4.1) according to the Academic Portfolio Summative Rating Sheet (Appendix E).

Table 4.1
Academic Portfolio Summative Rating Sheet – Christine

	Rating 1 Needs Development	Rating 2 Still Developing Competence	Rating 3 Competence Shown	Rating 4 Effective Competence Shown	Rating 5 Distinguished Competence Shown
Professional Characteristics				X	
Relationships with Students				X	
Instructional Planning			X		
Instruction			X		
Classroom Management			X		
Evaluation			X		

Average Overall Rating: 3.33

She did not include additional self-selected artifacts to demonstrate she has met objectives of the University Knowledge Base (Appendix B). She changed the background color and added clipart to personalize her portfolio. Christine included a well-written introduction for each artifact uploaded to the electronic portfolio explaining the purpose and reason for the artifact as well as a reflection piece. During the reflection piece, Christine suggested ideas for improvement as well as what she was proud of within the artifact.

Christine has a very good example of an electronic portfolio that exhibits strong professional responsibilities. She has conveyed professionalism throughout the electronic academic portfolio and has demonstrated growth over time.

Researcher Insight

After meeting and speaking with Christine and reviewing her responses to the interview questions, the results to the survey, and her electronic academic portfolio the researcher arrived at the following insights.

Christine is a person who is self-initiated and learns well on her own and wants to do what is necessary in order to accomplish the task at hand. Christine has an excellent understanding of the purpose of the electronic academic portfolio and will be able to carry this experience with her into the professional semester.

Christine demonstrated a lack of connection between the University Knowledge Base (Appendix B) and the framework provided on Folio-Live (McGraw Hill, 2002) to create the academic portfolio. During the interviews she did not speak about how the artifacts tied to the University Knowledge Base. The University Professional Knowledge Base is introduced in the Introduction to Education course and is used throughout the program.

Christine has just begun to understand and make the connection of the relevance of reflection as a professional growth strategy.

Case #2 – Zach – Gregarious Character

Zach is a 27-year-old non-traditional, transfer student from a community college and a four year institution. He is an Early/Late Childhood K-6 major with no minor. He currently has a 3.358 overall GPA and a 3.83 in major GPA. He will

student teach during the fall 2006 semester. In class the researcher noted he was very outgoing and socializes a lot with other students. He has taken a few years to decide what he really wants to do in life and has ultimately chosen the field of education.

Survey

Zach agreed that using Folio-Live (McGraw Hill, 2002) to create an electronic academic portfolio has been easy to learn with relatively little outside support. As a transfer student he participated in a transfer module which included an introduction to Folio-Live (McGraw Hill, 2002) and the purpose of an electronic academic portfolio. This transfer module was offered within his first clinical experience at the institution. He has made progress throughout the program using Folio-Live (McGraw Hill, 2002) and is confident learning new technologies on his own. He disagrees that the best way to learn new technology is to participate in formal training. He believes it would depend on the situation and the technology if he would prefer to learn new technologies with a partner. Zack expressed he can be easily distracted in group situations.

Zach is not sure there is too much change too quickly without enough planning and support. Zach feels confident in using technology to create an electronic academic portfolio and does not believe he is being left behind in the field of technology. His biggest fear however, of this technology is facing embarrassment in front of peers and colleagues if and when the technology does not work for him. Zach strongly disagrees with the notion that this new technology is one more bandwagon in a long chain of education innovations which have made little impact on the world of education.

Zach disagrees that an academic electronic portfolio will improve his ability to teach. When asked later in the survey if he will be a better teacher because of the electronic academic portfolio his answer was not sure. He is very proud of what he has accomplished and believes the electronic academic portfolio demonstrates that he is ready to be a teacher.

Interviews

During the interviews Zach demonstrated to the researcher that he was an outgoing and very energetic personality with a desire to live life and have fun. He loves to make people laugh and has a positive sense of humor and knows how and when to use humor in an appropriate manner. He is aware of his zest for life and knows how to set limitations for himself. He believes education is a “world of opportunity just waiting to be encountered.”

During interview number one, Zach expressed frustration in the area of instruction and how to use Folio-Live (McGraw Hill, 2002) to create the electronic academic portfolio. Zach was a transfer student and took a transfer module that introduced him to Folio-Live (McGraw Hill, 2002) and the electronic academic portfolio. This module was offered during his first clinical experience at the institution. He felt overwhelmed changing schools, majors, beginning a new program and learning new technology at the same time:

When I first bought it (Folio-Live) I was really stressed out because there is so much to do. I did not feel like I was trained very well when I first got it but with help from other students I got what I needed done.

Once I learned how to upload items and get things done, it really was not that hard.

Zach reasoned he really was not sure the development of the electronic academic portfolio contributed to his confidence as a novice teacher. He does believe the electronic academic portfolio will help him in his future classroom when he uses academic portfolios with his students.

As far as the electronic academic portfolio having a motivational effect on Zach, he believes he will be able to use the portfolio to *show off* his work.

I know that what I want to put in Folio-Live will be seen by a lot of people, so I want it [artifacts] to be my absolute best that it can be.

When asked how the portfolio influenced the role that was played in his own assessment and evaluation of performance, he realized the importance of reflection.

For all of our assignments we were asked to reflect on them, so I was able to review what I did in the classroom and then think about what I can do to make it [the assignment] better. For me in my classroom training, I think I learned more from my reflections and reflection from my cooperating teacher.

During interview number two Zach was asked to describe what he believed was the purpose of an academic portfolio.

It is to make me really stress! No, it is to help us organize all that we have accomplished while getting our degree.

Zach was asked how Folio-Live (McGraw Hill, 2002) and the electronic academic portfolio could assist in examining his educational growth, and he did have some pride and value in the area of planning and preparation.

When you go back and look at what you first put on there [electronic academic portfolio] to the last things [artifacts] when you are getting ready to graduate and have a final professional portfolio.

Teacher candidates were asked during interview number two what constitutes value for him/her in the learning process. Zach believes learning things that are going to be used. He looks for the connection to the classroom. Zach has spent time substitute teaching and enjoys being able to implement his learning in the classroom. If he is unable to see how the learning and knowledge will be used in the actual classroom, he does not place as much value on those learning experiences.

When the researcher asked Zach to describe how he reflects on his artifacts before uploading to Folio-Live (McGraw Hill, 2002), he explained that he would write about his feelings and would try to be totally honest with himself. He assumes responsibility for his learning through reflection and tries to learn from suggestions given to him by his professors and cooperating teachers.

If I do not make good grades [A] then I am not working hard enough.

I put 150% effort into my work and I want it to be reflected in my grades.

During interview number three the researcher asked Zach how the process of creating an academic portfolio will help in selecting artifacts for the professional portfolio. He realizes the artifacts included in the professional portfolio must be the

“best of the best.” He believes he has learned how to select artifacts that will demonstrate his ability to teach.

When asked about teacher candidates selecting artifacts to be included in the electronic academic portfolio rather than having professor selected artifacts he really liked the idea of self-selected artifacts. “Some of the things [artifacts] I have done and been a part of I wasn’t allowed to put on my Folio-live and that really stinks.”

Zach stated earlier in interview number two that he works hard and is proud of his work. He completes all assignments for class and works diligently on them attributing his effort on a desire for excellence. If he does not earn the grade he wishes, he is very critical of himself and wants to know what happened and what can be done better the next time in order to achieve the A grade.

Zach is very proud of his electronic academic portfolio because he taught himself how to use Folio-Live (McGraw Hill, 2002) on his own. “I am most proud that I did it all myself. I was not given formal training or help, I just played around and figured out how to do it and it happened.” He believes he did not receive the training that other teacher candidates were given in the Introduction to Education course. Zach is also proud of his portfolio because he is able to see growth in his work, grades, and professional attitude.

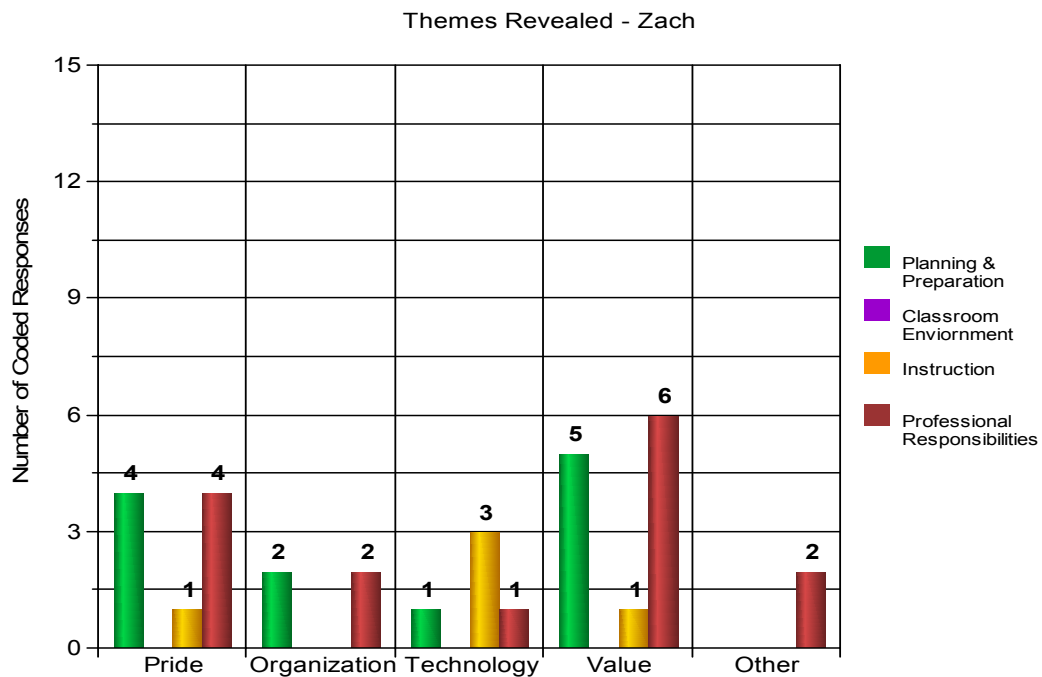
I think the areas that I have grown the most in are my philosophy of education and my understanding for learning. I now know that every student is totally different and you will have to be prepared to teach him or her no matter what they bring to your class.

Themes Revealed

Several themes were revealed during interviews with Zach. Overall, Zach has rated value high in the domain of planning and preparation and professional responsibilities. He also rated high in pride in the domain of planning and preparation and professional responsibilities. The interviews were transcribed and coded according to the coding chart (Appendix L) and then placed into a bar graph. Figure 4.2 portrays how Zach's themes appeared.

Figure 4.2

Themes Revealed – Zach



Electronic Academic Portfolio

Zach created a professional electronic academic portfolio with all required artifacts. He received an overall rating of 3 on a five point scale for his electronic

academic portfolio (Table 4.2) according to the Academic Portfolio Summative Rating Sheet (Appendix E).

Table 4.2
Academic Portfolio Summative Rating Sheet – Zach

	Rating 1 Needs Development	Rating 2 Still Developing Competence	Rating 3 Competence Shown	Rating 4 Effective Competence Shown	Rating 5 Distinguished Competence Shown
Professional Characteristics			X		
Relationships with Students			X		
Instructional Planning			X		
Instruction			X		
Classroom Management			X		
Evaluation			X		

Average Overall Rating: 3

When reviewing the electronic academic portfolio the researcher did not find that Zach included additional self-selected artifacts to further demonstrate he has met the objectives of the University Professional Knowledge Base (Appendix B). The portfolio was well organized and professional. He is very happy to show off his electronic academic portfolio to others. He enjoys talking about the process of creating an electronic academic portfolio and likes to share how he believes he has grown in knowledge and professional responsibilities.

Researcher Insight

After meeting and speaking with Zach and reviewing his responses to the interview questions, the results of the survey and his electronic academic portfolio, the research arrived at the following insights.

When the researcher asked about the purpose of the academic portfolio, Zach answered that he believed the purpose was for organization to keep track of all that needed to be accomplished during the program.

Zach demonstrated a lack of understanding in the purpose of the academic electronic portfolio. During interview number two he said the purpose of an academic portfolio “is to help us organize all that we have accomplished while getting our degree.” He was unable to see the purpose of the academic portfolio is to demonstrate growth over time.

Zach expressed frustration in the area of instruction and how to use Folio-Live (McGraw Hill, 2002) to create the electronic academic portfolio but does not think you need formal training.

Once you learn how to upload items and get things done, it really is not that hard. I am most proud that I did it all myself. I was not given formal training or help, I just played around and figured out how to do it and it happened.

Zach has not grasped the concept of reflection and the purpose of reflection as a tool for professional growth. “I just wrote about how I felt I did and how I felt after I did the artifact. I was totally honest in my reflection.”

Case #3 – Tristen – Technological Reluctance

Tristen is a 36-year-old non-traditional transfer student from a community college. She first attended a four year institution after graduation and then quit school when she married and had children. Her children are both in school now and she began taking classes at a community college then chose to go into the field of

education. She is an Early/Late Childhood K-6 major with no minor. She currently has a 3.58 overall GPA and a 4.0 in major GPA. She will student teach during the fall 2006 semester. In class she is quiet, yet determined to do well. Her main goal is to finish school.

Survey

Tristen struggled with Folio-Live (McGraw Hill, 2002) from the beginning. She was a transfer student but took the Introduction to Education course at the institution. Teacher candidates are introduced to Folio-Live (McGraw Hill, 2002) and the academic electronic portfolio and are provided with formal instruction in this course. When asked if the best way to learn new technologies is to participate in formal training classes she answered she was not sure, however, she disagreed with the statement that she cannot be expected to learn new technologies unless given formal training. She is also not sure she likes to learn things on her own.

Tristen does not feel overly confident in the area of technology but does not feel that she has been left behind when it comes to technology. She also does not have a fear of using technology in front of peers or colleagues. Tristen does believe she has made progress during her time at the institution in learning how to use Folio-Live (McGraw Hill, 2002) to create an electronic academic portfolio. Tristen believes that this new technology is basically one more bandwagon in a long history of education innovations which have made little impact on the world of education. She disagrees that she sometimes feels there is just too much change too fast without enough planning and support.

She is not sure that an academic portfolio will improve her ability to teach and disagrees that she will be a better teacher because of the creation of an electronic academic portfolio.

Interviews

Throughout the interview sessions with Tristen, she demonstrated to the researcher that she was determined confident with her body language and when answering questions. She was to the point and matter-of-fact and was unwilling to elaborate, as several of her answers was one word. Tristen is very time conscience and wanted to complete the interviews quickly without allowing time for conversation.

During interview number one with Tristen she had difficulty envisioning and expressing the purpose and overall picture of Folio-Live (McGraw Hill, 2002). She did not believe there was a personal purpose or advantage to creating an electronic portfolio whatsoever. "I don't see how this portfolio has contributed to my competence as a teacher in any way. The electronic academic portfolio has had no effect on my motivation to learn." During the interview she described how the portfolio helped to assume more responsibility for her learning, by merely stating "none". Tristen continued to answer questions in the same manner throughout the rest of the interview. When asked how the electronic academic portfolio helps with her own assessment and evaluation she replied again "none". Lastly the researcher asked her how the portfolio helped to experience the relationship between effort and results she again responded with "none".

Tristen was surprised to find that she could actually make cosmetic changes to the format of her electronic academic portfolio and was frustrated with the lack of easy navigation when using Folio-Live (McGraw Hill, 2002).

During interview number two, the researcher asked Tristen to describe the purpose of an academic portfolio. “I’ve been told that the purpose of the portfolio is to help us when we are interviewing for a teaching job.” She really did not have a clear understanding of the purpose of the academic portfolio. She had the misconception that an academic portfolio was to share with future employers rather than being a collection of artifacts to demonstrate growth over time.

When the researcher asked Tristen to describe how she would reflect on her artifacts and evaluate her learning before uploading them to Folio-Live (McGraw Hill, 2002), she responded in the following manner. “I suppose I just look over them to make sure they are as good as I want them to be, and I evaluate my learning by seeing how comfortable and familiar I am with terms and concepts.”

Tristen did, however, see growth in herself as a teacher candidate when reviewing her electronic academic portfolio. When asked how Folio-Live (McGraw Hill, 2002) could assist her in examining her educational growth she did have a positive comment. “I can look at my first uploads to Folio-Live and compare them to my most recent uploads to see if there has been any growth and development.”

During interview number three Tristen gave very short answers and was unwilling to give further details about her thoughts and responses. The researcher asked when reviewing your Folio-Live (McGraw Hill, 2002) electronic academic portfolio if she was able to see academic growth. Her answer was “Not really.”

During interview number two, she responded in a positive manner expressing she could look back at her earlier artifacts and compare them with her most current artifacts. During interview number three, she did not perceive growth in any area of the academic portfolio.

Tristen is not proud of her electronic academic portfolio, however, when asked how she would place value on assignment completed for class, she stated that she always wants to complete her assignments as best as she can. When asked how the artifacts in the academic portfolio demonstrate that you are ready to enter the professional the professional semester she responded: “They demonstrate that I have experience in areas that enable me to be prepared for student teaching.”

Themes Revealed

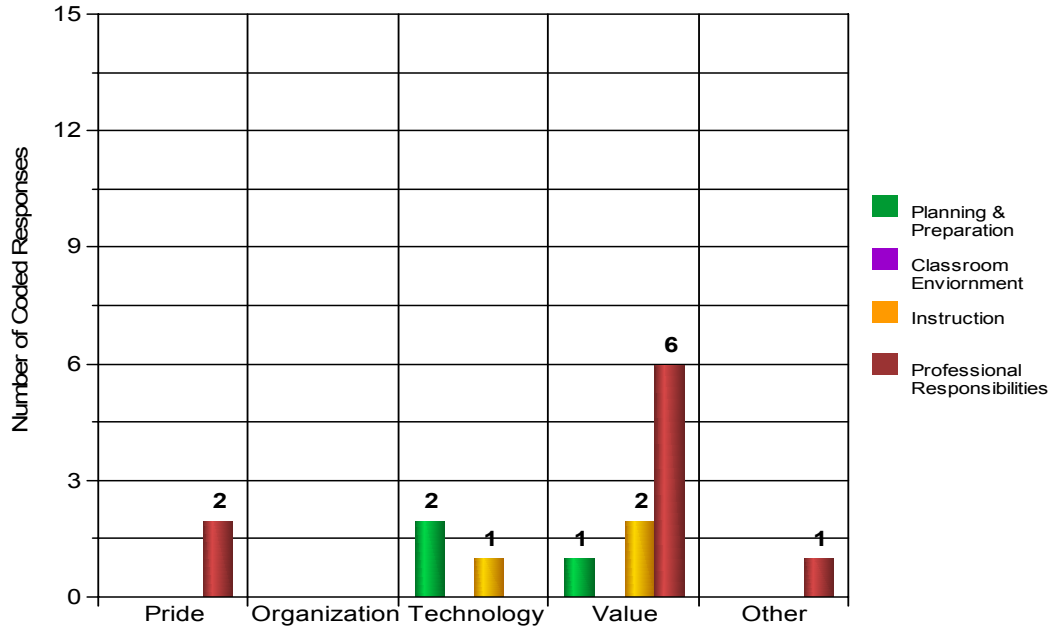
Tristen did score high in the area of professional responsibilities and value; however, most of her statements that referred to value did so in a negative manner. Overall, Tristen did not see much value in the process at all and this perception was given through oral statements as well as body language.

The interviews were transcribed and coded according to the coding chart (Appendix R) and then placed into a bar graph. Figure 4.3 depicts how Tristen’s themes appeared.

Figure 4.3

Themes Revealed – Tristen

Themes Revealed - Tristen



Electronic Academic Portfolio

The researcher reviewed Tristen’s electronic academic portfolio and found that she created a well organized academic portfolio. She had all of the required artifacts but did not include additional self-selected artifacts to demonstrate she has met the objectives of the University Professional Knowledge Base (Appendix B). Tristen received an overall rating of 3.33 on a five point scale for her electronic academic portfolio (Table 4.3) according to the Academic Portfolio Summative Rating Sheet (Appendix E).

Table 4.3
Academic Portfolio Summative Rating Sheet – Tristen

	Rating 1 Needs Development	Rating 2 Still Developing Competence	Rating 3 Competence Shown	Rating 4 Effective Competence Shown	Rating 5 Distinguished Competence Shown
Professional Characteristics			X		
Relationships with Students				X	
Instructional Planning				X	
Instruction			X		
Classroom Management			X		
Evaluation			X		

Average Overall Rating: 3.33

She did not provide an introduction to the artifacts, and the reflection was minimal. During the time the researcher was viewing the electronic academic portfolio with Tristen she was uneasy and did not take pleasure in sharing or talking about her portfolio. Tristen did however, make changes to the background color and added clip art to depict her personality.

Researcher Insight

After meeting and speaking with Tristen and reviewing her responses to the interview questions, the results of the survey and her electronic academic portfolio the research found the following insights.

Tristen demonstrated a mediocre professional attitude during the interviews with short answers to questions and an unwillingness to expound on her thoughts. She was unable or unwilling to express her perceptions in a fitting manner.

The researcher found Tristen did describe lack of value in creating the electronic academic portfolio. The researcher coded responses from the interviews

that were negative or demonstrated lack of value and this could skew the results appearing to find value in the domain of professional responsibilities.

Tristen demonstrated a deficient understanding of an academic portfolio stating: “I’ve been told that the purpose of the portfolio is to help us when we are interviewing for a teaching job.” The instruction given during the Introduction to Education course misled Tristen to believe this was a professional portfolio and not an academic portfolio.

Tristen had difficulty getting beyond the use of a commercial program to create the electronic academic portfolio. She did not like spending the money for the initial cost of the commercial product or the yearly renewal fee. However, she did not feel she had the technology skills necessary to create an electronic academic portfolio on her own.

Case #4 – Audrey – Proficient Seeker

Audrey is a 24-year-old non-traditional transfer student who attended two previous four-year institutions before coming to this institution. She has changed majors twice and is presently an Early/Late Childhood K-6 major with no minor. She currently has a 3.45 overall GPA with a 3.861 in major GPA. She will student teach during the fall 2006 semester. She is a student who wants to do well in class and demonstrates this desire by the quality of her artifacts included in her electronic academic portfolio. She speaks of the aspiration of wanting to be a teacher.

Survey

Audrey took the Introduction to Education course at the institution and received formal training on how to use Folio-Live (McGraw Hill, 2002) to create an

electronic academic portfolio. Audrey agrees that Folio-Live (McGraw Hill, 2002) has been easy to learn with relatively little outside support. She is not sure that she likes to learn things on her own. She would much rather learn with a partner, and she agrees the best way to learn new technologies is to participate in formal training classes which show how to use the technology.

She disagrees that an academic portfolio will do little to improve her ability to teach. Audrey is unsure she will be a better teacher because of the creation of an academic electronic portfolio. Even though she has more to learn, she is really proud of what she has accomplished, and her academic portfolio demonstrates through her artifacts that she is ready to become a teacher. Audrey agrees that she has made progress during her time at the institution using Folio-Live (McGraw Hill, 2002) to create the electronic academic portfolio.

Audrey strongly disagrees that her biggest fear of this technology is embarrassment in front of peers and colleagues. She does agree that sometimes she has been left behind when it comes to technology and does not feel comfortable with it and has difficulty seeing what good it will do. Audrey agrees that there is just too much change too fast without enough planning and support, and this new technology is basically just one more bandwagon in a long chain of education innovations which have made little impact on the world of education.

Interviews

During the interviews, Audrey was pleasant and answered questions during the first interview with more detail than the second and third interview. When asked

during the first interview to briefly comment on the Folio-Live (McGraw Hill, 2002) development, she answered:

During Explorations I was taught how to use Folio-Live and since that time I have just figured it out on my own. I know that I will still need to tweak it, but it really has been a useful tool for me.

Audrey actually did not experience frustrations with Folio-Live (McGraw Hill, 2002) and the creation of the electronic academic portfolio. She was really surprised as to how easy Folio-Live (McGraw Hill, 2002) was to maneuver and use when someone demonstrates its use.

Audrey does believe the development of the electronic academic portfolio contributed to her competence as a novice teacher as well as being able to evaluate her own assessment and evaluation of her performance.

As I develop this portfolio and look back at it I can see my growth in writing lesson plans. It [electronic academic portfolio] made me evaluate every project more carefully because there was a possibility that it [the artifact] would go into the portfolio.

Audrey believes that Folio-Live (McGraw Hill, 2002) and the creation of the electronic academic portfolio has motivated her to take a closer look at her artifacts before uploading them. Since people will potentially look at the portfolio, she wants all of the artifacts to look good and demonstrate her ability to be a good teacher.

When the researcher asked if the portfolio helped her to assume more responsibility for her own learning, she did not believe that it did. However, she did

put more effort into the artifacts that she knew would be uploaded and posted on Folio-Live (McGraw Hill, 2002).

During interview number two, Audrey was asked to describe the purpose of an academic portfolio. “The purpose of an academic portfolio is to keep track of your growth through school and then to give employers something to look at.”

When asked how she reflects on artifacts before uploading them to Folio-Live (McGraw Hill, 2002), she really did not think that she did reflect on the artifacts. She just uploaded the artifacts for the class requirement. She found value in her learning process when she accomplished her tasks at hand and felt like she did a good job.

When asked how Folio-Live (McGraw Hill, 2002) and the creation of an electronic academic portfolio can assist in examining educational growth, Audrey did believe the electronic academic portfolio allows teacher candidates the opportunity to look back and reflect on previous work. She is able to evaluate her learning by using concepts or skills from previous semesters and building on her prior knowledge.

During interview number three, the researcher asked if the creation of the academic electronic portfolio would assist in the creation of the professional portfolio created during the professional semester. Audrey believed that some of the artifacts on the academic portfolio would be used in the professional semester.

Audrey expressed that she did see academic growth especially in the area of writing lesson plans. When asked how she would place value on assignments completed for class, she stated: “If they are going on my portfolio to be shown to a potential employer I think I tend to spend a little more time on them.”

When asked how the creation of the electronic academic portfolio would demonstrate that she is ready to enter the professional semester, Audrey believed the artifacts uploaded to the portfolio show that learning and growth as a future teacher is taking place.

Themes Revealed

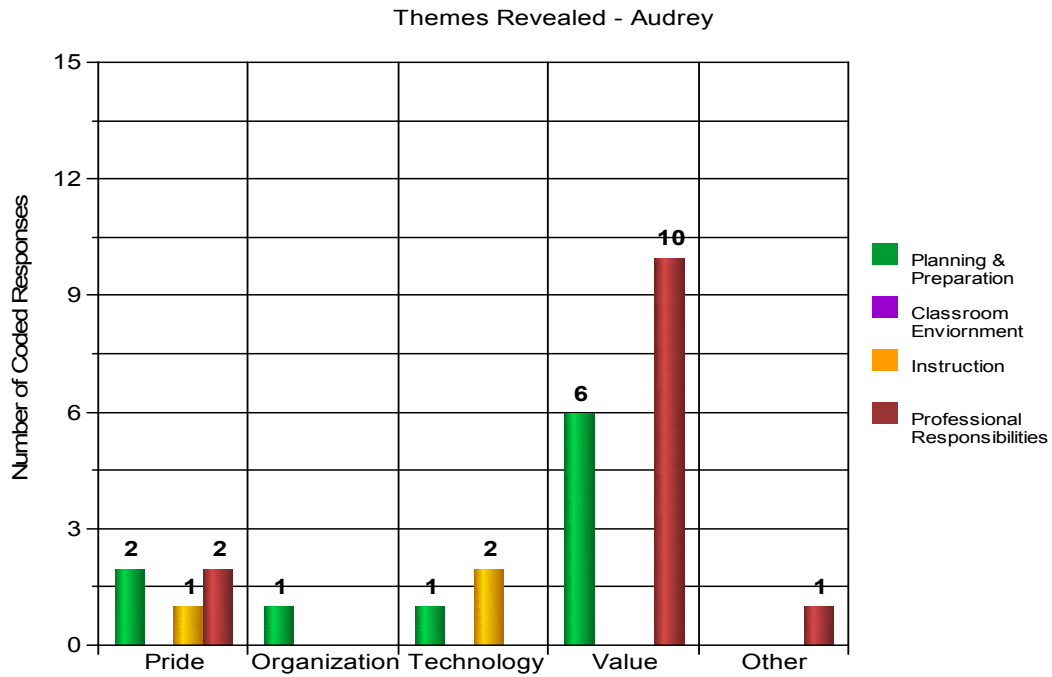
The main theme revealed during Audrey's interviews was value in the domain of professional responsibilities. Overall, Audrey did have positive statements about the value of creating the electronic academic portfolio.

The creation of the electronic academic portfolio made me evaluate every project more carefully because there as a possibility that it [artifact] would go into the portfolio. I put more effort into the things [artifacts] that I knew would be posted to the electronic academic portfolio.

Audrey felt strongly that the creation of the electronic academic portfolio helped her to be more organized throughout her coursework at the institution.

The interviews were transcribed and coded according to the coding chart (Appendix R) and then placed into a bar graph. Figure 4.4 illustrates how Audrey's themes appeared.

Figure 4.4
Themes Revealed – Audrey



Electronic Academic Portfolio

Audrey’s academic electronic portfolio demonstrated professional responsibilities. She had all required artifact uploaded properly and in the correct place. She received an overall rating of a 3.5 on a five point scale for her electronic academic portfolio (Table 4.4) according to the Academic Portfolio Summative Rating Sheet (Appendix E).

Table 4.4
Academic Portfolio Summative Rating Sheet – Audrey

	Rating 1 Needs Development	Rating 2 Still Developing Competence	Rating 3 Competence Shown	Rating 4 Effective Competence Shown	Rating 5 Distinguished Competence Shown
Professional Characteristics				X	
Relationships with Students				X	
Instructional Planning				X	
Instruction			X		
Classroom Management			X		
Evaluation			X		

Average Overall Rating: 3.5

She did not have any additional self-selected artifacts uploaded to the portfolio and only had the required reflections assigned by professors. Audrey does not mind talking about and sharing her portfolio and is able to verbalize where she believes she has grown over time. “I am able to see a substantial difference in my lesson planning from when I first started education courses to now. I am more confident about knowing what needs to be included”.

Researcher Insight

After meeting and speaking with Audrey and reviewing her responses to the interview questions, the results of the survey and her electronic academic portfolio, the researcher found the following insights.

Audrey wants to teach and is willing to go through the process of creating an electronic academic portfolio; however, she is unable to see the purpose or how the academic portfolio will help her in the classroom or in her future. Audrey felt

confident in using the commercial product to create an electronic academic portfolio and believed the portfolio helped her to be more organized.

More instruction is needed for Audrey to make the connection with the electronic academic portfolio and the University Professional Knowledge Base (Appendix B).

Case #5 – Maria – Timid Novice

Maria is a 22-year-old traditional, transfer student from a community college. She first began school as a nursing major and changed her major to Early/Late Childhood K-6. She currently has a 2.67 overall GPA and a 3.1 in major GPA. She will student teach during the fall 2006 semester if she raises her GPA to a 2.8. She currently works as a para-professional in a local elementary school. Maria is a single mom and is trying to work, be a parent and go to school and is feeling the stress of life.

Survey

Maria took the Introduction to Education class from the institution and received formal training on how to use Folio-Live (McGraw Hill, 2002) to create an electronic academic portfolio during that class. She is not sure that Folio-Live (McGraw Hill, 2002) has been easy to learn and is not sure she has made progress during her time at the institution in learning how to use Folio-Live (McGraw Hill, 2002). She prefers not to learn things as an individual, although she is also not sure she wants to learn new programs and approaches with a partner. She is not sure she is fearful of using technology in front of her peers and colleagues. Maria does not

believe that she has been left behind when it comes to technology but does not demonstrate confidence when using or speaking about technology.

Maria does not believe an electronic academic portfolio will improve her ability to teach and also does not believe she will be a better teacher because of the creation of the electronic academic portfolio. She is not proud of what she has accomplished and does not believe her electronic academic portfolio demonstrates that she is ready to be a teacher.

Maria strongly disagrees this new technology is basically one more bandwagon in a long chain of education innovations which have made little impact on the world of education. She is not sure there is too much change too fast without enough planning and support. Maria also is not sure the best way to learn new technology is to participate in formal training.

Interviews

During the interview sessions Maria answered questions trying to describe how she felt about creating the electronic academic portfolio. She had difficulty understanding and comprehending some of the questions asked during the interview. The researcher gave a copy of the questions to her ahead of time so Maria would be able to think about and prepare her answers in addition to asking Maria to explain the questions before answering.

During interview number one Maria was asked to briefly comment on the Folio-Live (McGraw Hill, 2002) development for her during her time at the institution. "It [Folio-Live] has been a huge learning experience as far as having the ability to view and put information about me and my work from different college

courses.” She has been frustrated with the technology and making sure documents are uploaded correctly and in the right place. Maria experienced challenges in the area of technology skills even though she has been provided formal training. She did take initiative upon herself to acquire additional one-on-one assistance.

Maria was asked how the development of the electronic academic portfolio has contributed to her competence as a novice teacher. She believes technology has had great advances and will continue to be important for teacher candidates and teachers in the field to keep up and be aware of the many resources available to them on the internet and through new software programs.

Maria believes the creation of the electronic academic portfolio has had a positive effect on the way she prepares artifacts to be uploaded to the electronic academic portfolio. Maria does believe the electronic academic portfolio helped to experience the relationship between effort and results. She is also sure she has been affected in ways she is not even aware of at this time in her career. “I feel it is great that I have the opportunity to create an electronically based portfolio that I can add to and view whenever I need.” Maria believes the academic portfolio allowed her to view her professional growth throughout her coursework because she is able to go back and look at artifacts she created at the beginning of the program and compare them to more recent artifacts. She also believes that having the instructors be able to view the electronic academic portfolio is also beneficial.

During interview number two the researcher asked Maria to describe the purpose of an academic portfolio. “It is to aide me in the future of education and to allow future employers to see my success in college.”

Maria was surprised with the fact that Folio-Live (McGraw Hill, 2002) and the creation of the electronic academic portfolio does not seem to be of great importance to all instructors at the institution. She was frustrated with the fact that not all professors could assist her with questions concerning the electronic academic portfolio.

When the researcher asked how Maria finds value in the creation of the electronic academic portfolio, she noted it is because she is able to demonstrate through her artifacts skills and concepts she has learned in her coursework. Maria expressed pleasure that she has been able to visually see growth in her philosophy of education and her ability to write lesson plans.

During interview number three, Maria was asked how the process of creating an academic electronic portfolio would help when selecting artifacts for the professional portfolio. She believes the process would help in a substantial way because she will be more confident when it comes to selecting and identifying artifacts that will be appropriate to demonstrate her skills as a teacher for the professional portfolio.

The researcher asked Maria to describe her thoughts on self selection of artifacts to be placed in the academic portfolio rather than have a professor select artifacts. She felt content and confident with having the opportunity to choose her own artifacts. However, at the beginning of the creation of the electronic academic portfolio beginning guidance from instructors was helpful and beneficial.

Maria places high value on the assignments that are linked to her major and she can see how they will be advantageous to her future in the classroom. She is a

para-professional in a local school and has the opportunity to see how assignment could be used in the classroom. She often has the chance to apply some of her assignments in the classroom she works.

When asked how the artifacts placed in the electronic academic portfolio demonstrate that Maria is ready to enter the professional semester she thinks people are able to see her improvement in her artifacts.

They model improvement and growth as a future teacher.

Themes Revealed

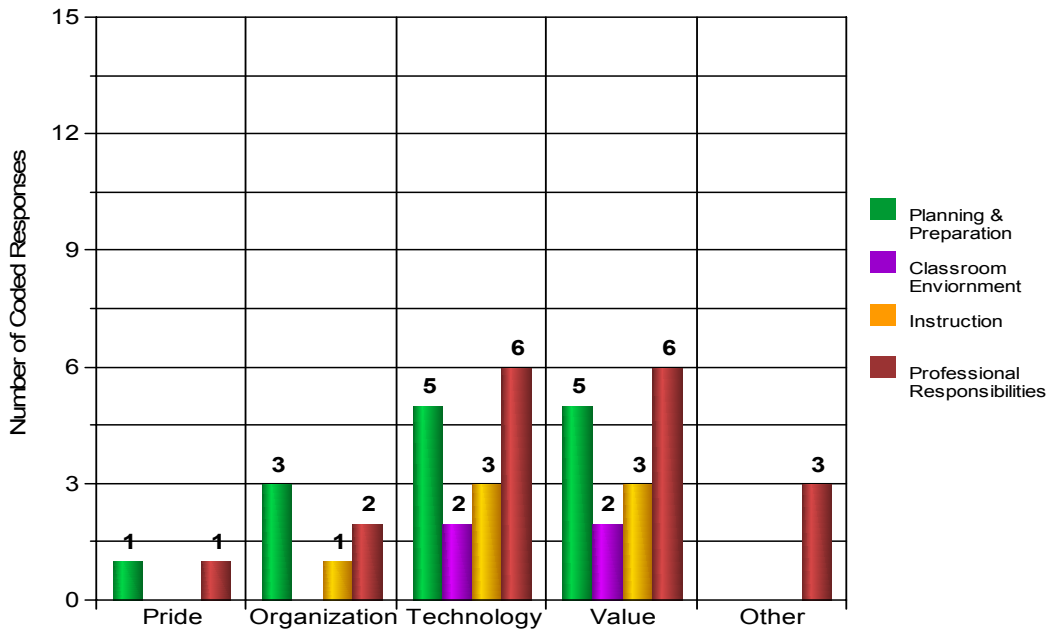
Themes revealed for Maria were very interesting. She scored high in the area of value for professional responsibilities, and planning and preparation.

The interviews were transcribed and placed in a coding chart (Appendix R) and then placed into a bar graph. Figure 4.5 depicts how Maria's themes appeared.

Figure 4.5

Themes Revealed – Maria

Themes Revealed - Maria



Electronic Academic Portfolio

Maria’s electronic academic portfolio had all required artifacts uploaded. Some of the artifacts were not uploaded in the correct place. Maria received an overall rating of a 2.66 on a five point scale for her electronic academic portfolio (Table 4.5) according to the Academic Portfolio Summative Rating Sheet (Appendix E).

Table 4.5
Academic Portfolio Summative Rating Sheet – Maria

	Rating 1 Needs Development	Rating 2 Still Developing Competence	Rating 3 Competence Shown	Rating 4 Effective Competence Shown	Rating 5 Distinguished Competence Shown
Professional Characteristics			X		
Relationships with Students			X		
Instructional Planning		X			
Instruction		X			
Classroom Management			X		
Evaluation			X		

Average Overall Rating: 2.66

There are no additional self-selected artifacts in her portfolio to demonstrate that she has met objectives of the University Professional Knowledge Base (Appendix B). She changed the background color and added clip art in order to depict her personality. She is nervous when asked to share her electronic academic portfolio in public.

Researcher Insight

After meeting and speaking with Maria and reviewing her responses to the interview questions, the results of the survey and her electronic academic portfolio, the researcher found the following insights.

Maria had difficulty understanding the purpose of the electronic academic portfolio. She was unable to visualize the end product and realize the creation of the electronic academic portfolio would demonstrate growth over time.

The researcher found that Maria revealed in the survey she did not want formal training but also stated she did not want to learn on her own or with a partner. Maria demonstrated difficulty using and understanding how to use technology to create an electronic academic portfolio.

Case #6 – Raven – Frustrated Learner

Raven is a 29-year-old non-traditional transfer student from a four-year institution. Raven is an Early/Late Childhood K-6 major with a minor in ESOL. She currently has a 3.16 overall GPA and a 3.36 in major GPA. She will student teach during the fall 2006 semester.

Survey

As a transfer student participated in the transfer module from this institution which included an introduction to Folio-Live (McGraw Hill, 2002) and the purpose of an electronic portfolio. This transfer module was offered within her first clinical experience at the institution. Raven revealed in the teacher candidate perception survey (Appendix M) that Folio-Live (McGraw Hill, 2002) has not been easy to learn and has been frustrated with the entire process. Raven does not like to learn things on

her own and would rather learn new programs and approaches with a partner. Raven does believe this new technology is basically one more bandwagon in a long chain of education innovations which have made little impact on the world of education.

Raven agrees that sometimes she has been left behind when it comes to technology, and she does not feel comfortable with technology. She has difficulty seeing how technology will benefit her. One of her biggest fears is embarrassment in front of her peers and colleagues. She believes the best way to learn new technology is to participate in formal training in classes that show how to use the technology.

Raven is not sure she will be a better teacher because of the creation of an electronic academic portfolio and believes an academic portfolio will do little to improve her ability to teach. Raven does strongly agree she has made progress with Folio-Live (McGraw Hill, 2002) and learning how to create an electronic academic portfolio. Even though she has more to learn she strongly agrees she is very proud of what she has accomplished and believes the academic portfolio demonstrates she is ready to become a teacher.

Interviews

Raven was very pleasant and appeared to be very honest and comfortable when answering the questions during the interviews. Raven did not take the Introduction to Education course at this institution so she felt like she had a crash course on Folio-Live (McGraw Hill, 2002) in the first clinical experience. This was the beginning of her frustrations.

Raven was surprised that Folio-Live (McGraw Hill, 2002) and the creation of the electronic academic portfolio were more complicated than she expected. She

thought the use of Folio-Live (McGraw Hill, 2002) was to make creating the electronic academic portfolio easier. It is her belief that Folio-Live (McGraw Hill, 2002) made this more difficult.

One of the many frustrations Raven addressed is the organization of Folio-Live (McGraw Hill, 2002). She has not made the connection and does not understand the electronic academic portfolio framework (Appendix S) is based on the institution's University Professional Knowledge Base (Appendix B). "There are a lot of the sub sections that have the same name. For example, it [portfolio framework] has reflections in five different places. I always end up putting my reflections under the wrong section."

The development of the electronic academic portfolio contributed little to her competence as a novice teacher. The only artifacts she had uploaded to her electronic academic portfolio were the required artifacts from professors. She has not explored or used any other part of Folio-Live (McGraw Hill, 2002) and has not included any self-selected artifacts.

Right now, I am uploading only necessary items on my Folio-Live and nothing else. I have put a lot of effort into learning Folio-Live, but only what I need to pass my classes. Other than that I do not know anything else about Folio-Live (McGraw Hill, 2002).

Raven does not believe that Folio-Live (McGraw Hill, 2002) or the creation of the electronic academic portfolio has motivated her to learn in any way. She describes the whole process as a "living nightmare." She believes the only thing she

has learned about herself through this process is to have patience. “I think I have learned to be more patient every time I use Folio-Live.”

During interview number two Raven described the purpose of an academic portfolio as something to “show off the best of work that the person has compiled over the years.”

Raven had difficulty explaining how she would reflect on artifacts before uploading the artifacts to the electronic academic portfolio. When Raven was asked to describe what constitutes value for her in the learning process she stated: “What I find of value in my learning process is learning something new that I have never heard or known about. I think it is valuable to learn something new everyday.”

She has no idea how Folio-Live (McGraw Hill, 2002) and the creation of an electronic academic portfolio can assist in educational growth.

During interview number three, the researcher asked Raven how the process and creation of the electronic academic portfolio will help when selecting artifacts for the professional portfolio. Raven expressed fear and lacked confidence in her when the researcher asked about self selection of artifacts rather than professor selected artifacts.

I think it will be more nerve wracking for me because I only had a crash course in Folio-Live. I think that I would spend the most amount of time selecting artifacts because I really do not know what is expected, or what is considered a good quality artifact.

Raven is most proud of customizing her own homepage because she completed this task on her own without help from tech support from others. This

process helped in building confidence in the area of technology skills. She does not think she will be as fearful in the future to try new things with Folio-Live when she begins to create her professional portfolio.

Raven was able to perceive growth in her written materials, lesson plans and teaching units. She found the electronic academic portfolio to help her increase value placed on her artifacts. She wanted her artifacts to demonstrate that she has grown professionally.

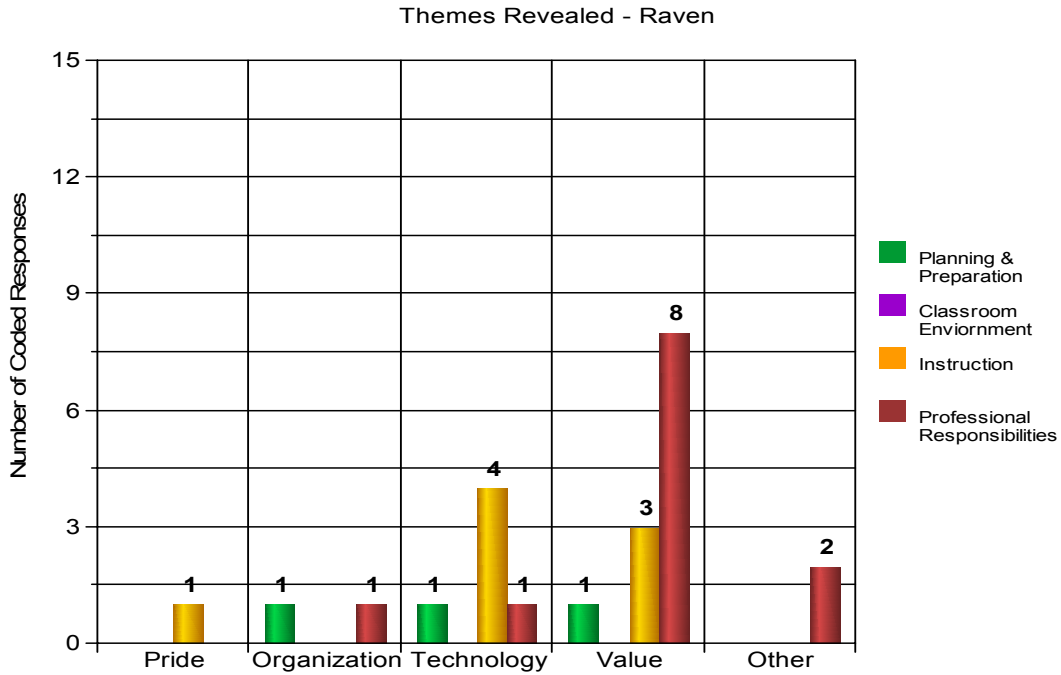
Themes Revealed

Overall the themes revealed in Raven's answers to her questions in the interviews indicated she scored very high in the area of value in the domain of professional responsibilities. She also scored high in the area of technology in instruction.

I have yet to experience any contributions from Folio-Live. Maybe if I had not taken only a crash course on it [Folio-Live] it would've been a better experience. So far, I have yet to see any major benefit.

The interviews were transcribed and coding chart (Appendix R) and then placed into a bar graph. Figure 4.6 represents how Raven's themes appeared.

Figure 4.6
Themes Revealed – Raven



Electronic Academic Portfolio

Raven created an electronic academic portfolio that had all of the required artifacts. She did not include any self selected artifacts to demonstrate she has met the objectives of the University Professional Knowledge Base (Appendix B). Some of the artifacts included in Raven’s electronic academic portfolio were incorrectly placed within the framework. She did not include any reflections other than the reflections required by professors. Maria received an overall rating of a 2.66 on a five point scale for her electronic academic portfolio (Table 4.6) according to the Academic Portfolio Summative Rating Sheet (Appendix E).

Table 4.6
Academic Portfolio Summative Rating Sheet – Raven

	Rating 1 Needs Development	Rating 2 Still Developing Competence	Rating 3 Competence Shown	Rating 4 Effective Competence Shown	Rating 5 Distinguished Competence Shown
Professional Characteristics			X		
Relationships with Students			X		
Instructional Planning		X			
Instruction		X			
Classroom Management			X		
Evaluation			X		

Average Overall Rating: 2.66

She did however, make changes to the background color and added a picture of herself to the homepage. She is not comfortable with sharing her electronic academic portfolio in public.

Researcher Insight

After meeting and speaking with Raven and reviewing her responses to the interview questions, the results of the survey and her electronic academic portfolio the research came up with the following insights.

Raven did not have an understanding of the purpose for the academic portfolio. She was unable to make the connections between the University Professional Knowledge Base (Appendix B) and the artifacts required by professors.

Raven did not have an understanding of the purpose for reflection. She did not include any reflections within her electronic academic portfolio other than the reflections required by professors. Raven did not have an understanding of reflection being a valuable part of the learning process.

Raven grew in confidence with the area of technology with using Folio-Live (McGraw Hill, 2002) throughout her course work at the institution.

Case #7 – Lori – Spirited Learner

Lori is a 24-year-old non-traditional transfer student from a four year institution. She is an Early/Late Childhood K-6 major with no minor. She currently has a 2.94 overall GPA and a 4.0 in major GPA. She will student teach during the fall 2006 semester.

Survey

Lori is a transfer student who learned how to use Folio-Live (McGraw Hill, 2002) during a transfer module which included her first clinical experience at this institution. During this module, she was introduced to Folio-Live (McGraw Hill, 2002) and the purpose of an electronic academic portfolio. She had difficulty learning how to use Folio-Live (McGraw Hill, 2002) and needed additional support to learn how to create the electronic academic portfolio. Lori believes the best way to learn new technologies are to participate in formal training classes. She does not prefer to learn new things as an individual and would much rather learn new programs and approaches with a partner. She does believe she should not be expected to learn new technologies without formal training.

Lori is not afraid of technology and not afraid to use technology in front of peers and colleagues. She disagrees with the idea that she has been left behind when it comes to technology. She believes however that this new technology is basically one more bandwagon in a long chain of education innovations which have made little

impact on the world of education. Lori also agrees that there is just too much change too fast without enough planning and support.

She does believe she has made progress with the creation of the electronic academic portfolio during her time at the institution. Lori believes an electronic academic portfolio will do little to improve her ability to teach and is not sure she will be a better teacher because of the creation of the portfolio. Even though she does understand she has more to learn, she is really proud of what she has accomplished and believes her electronic academic portfolio demonstrates that she is ready to become a teacher.

Interviews

Lori is a transfer student yet took the Introduction to Education class at this institution. This is the first time she has had to create an electronic academic portfolio and working with Folio-Live (McGraw Hill, 2002) is totally new. She is pleased she had time for formal instruction during the Introduction to Education course at the institution. Lori was surprised to find how much difficulty everyone seemed to have using Folio-Live (McGraw Hill, 2002)... including professors.

During interview number one, she did express frustration with how careful she needed to be when uploading artifacts and editing any part of the portfolio. She believes “the steps can be difficult and easy to mess up.”

Lori has been pleased with the process because she believes creating the electronic academic portfolio will definitely help her to be more aware of what needs to be in a professional portfolio. She did say she really did not think the portfolio

itself has motivated her to learn. She does believe she has been able to view growth by looking back at her artifacts she has uploaded to the portfolio.

Lori believes with the creation of the portfolio she has become “more careful about the documents I submitted to the portfolio. I made sure the content was the best I could achieve, and edited more carefully.” She does think the relationship between effort and results is stronger because of her careful attention to details.

During interview two, the researcher asked Lori to describe the purpose of an academic portfolio. “It [academic portfolio] is a way to organize information regarding your teaching experience at the institution and to prepare you for your career.”

Towards the end of interview number two, Lori reflected on her artifacts before uploading them to Folio-Live (McGraw Hill, 2002) she said “I just make sure there are not any mechanical errors and that the paper communicates what I am trying to say.”

When asked how she assumes responsibility for her own learning I’m at a point in my life now where I don’t want to waste any time, and by not doing well in school because of decisions I make such as skipping class because I’m too tired, not making time to do assignments, these are not an option.

During interview three, Lori shared that she has tried very hard to do her best on artifacts uploaded to the academic portfolio so she would be able to select and use some of the academic portfolio artifacts into her professional portfolio.

I like that professors require artifacts for the electronic academic portfolio because it has given me an idea of what sort of things (artifacts) need to be placed in my portfolio, but I also think I need to select other things as well to put in there.

She believes she will be able to make insightful selections when creating her professional portfolio.

Lori places value on all assignments for class. She wants to do well especially with lesson plans and assignments she believes will help her in the future. If she is able to make a connection to the real world setting, she finds more value than assignments where she has difficulty making the connection. Lori has found that the electronic academic portfolio has allowed her to stay organized and have a place to store all artifacts she has created during her methods courses.

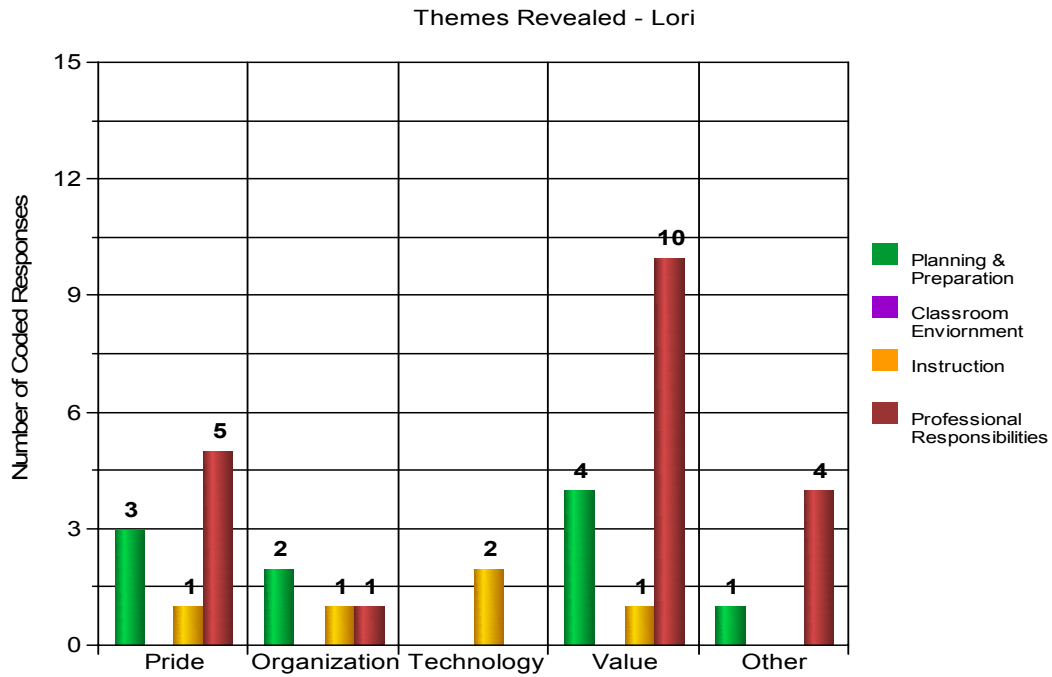
Lori has been able to see growth in the area of her philosophy of education. As she gains more experience she is finding things that need to change.

I have also found growth in the way that I understand how and why I'm doing certain assignments for class. I think before I would just do them to do them without knowing why I did the things that I did.

Themes Revealed

The interviews were transcribed and coding chart (Appendix R) and then placed into a bar graph. Figure 4.7 illustrates how Lori's themes appeared.

Figure 4.7
Themes Revealed – Lori



Electronic Academic Portfolio

Lori had all required artifacts uploaded to her electronic academic portfolio with several additional self-selected artifacts included in the portfolio to demonstrate she has met University Professional Knowledge Base (Appendix B) objectives. Lori received an overall rating of 3.33 on a five point scale for her electronic academic portfolio (Table 4.7) according to the Academic Portfolio Summative Rating Sheet (Appendix E).

Table 4.7
Academic Portfolio Summative Rating Sheet – Lori

	Rating 1 Needs Development	Rating 2 Still Developing Competence	Rating 3 Competence Shown	Rating 4 Effective Competence Shown	Rating 5 Distinguished Competence Shown
Professional Characteristics				X	
Relationships with Students			X		
Instructional Planning				X	
Instruction			X		
Classroom Management			X		
Evaluation			X		

Average Overall Rating: 3.33

She did not include reflection pieces other than the reflections assigned required to be uploaded by professors. Lori does not mind sharing her electronic academic portfolio in public.

Researcher Insight

After meeting and speaking with Lori and reviewing her responses to the interview questions, the results of the survey and her electronic academic portfolio the research came up with the following insights.

Lori wanted real world connections made with her artifacts and her electronic academic portfolio. She wanted to know how this requirement was going to help her in the future. She was unable to see that the academic portfolio demonstrated growth over time.

Lori was beginning to make the connection between the University Professional Knowledge Base (Appendix B) and the electronic academic portfolio and demonstrated this by adding additional self-selected artifacts. She was however,

unable to see the connection of the electronic academic portfolio and motivation to learn.

Case #8 – Adam – Ambitious Explorer

Adam is a 21-year-old traditional college student. He is an Early/Late Childhood K-6 major with a minor in special education. He currently has a 3.33 overall GPA with a 3.63 in major GPA. He will student teach during the fall 2006 semester. He appears to be a driven student who has a strong desire to teach.

Survey

Adam took the Introduction to Education course from the institution and received formal training on how to use Folio-Live (McGraw Hill, 2002) to create an electronic academic portfolio. Adam disagrees that Folio-Live (McGraw Hill, 2002) has been easy to learn with relatively little outside support. He is not sure he would rather learn things as an individual. He agrees he does do best with learning new programs and approaches when he can learn them with a partner. Adam agrees that the best way to learn new technologies is to participate in formal training classes. He does believe that there is just too much change too quickly without enough planning and support. Adam disagrees with the statement that he cannot be expected to learn new technologies unless given formal training and does not believe he has been left behind when it comes to technology. He does feel comfortable with technology.

Adam agrees that the creation of an academic portfolio will do little to improve his ability to teach. He disagrees that he will be a better teacher because of the creation of an electronic academic portfolio. Adam disagrees that this is a new

technology that is basically one more bandwagon in a long chain of education innovations which have made little impact on the world of education.

Adam has made progress during his time at the institution in learning how to use Folio-Live (McGraw Hill, 2002) to create an academic portfolio. He does strongly agree that even though he has more to learn, he is really proud of what he has accomplished and believes his academic portfolio demonstrates he is ready to become a teacher.

Interviews

During the interview sessions with Adam, he appeared to be relaxed and willing to answer questions about the creation of the electronic academic portfolio. He is a hard worker and holds down a full-time job while going to school. He is trying hard to complete his Early/Late Childhood K-6 major with a minor in special education in four years.

Adam was asked to briefly comment on the Folio-Live development during interview number one. He stated:

For me, Folio-Live was hard to understand at first because instructors were just as clueless as the students. However, as I have advanced through my methods course, things have been better explained and now I feel that I can handle it [Folio-Live] without any problems.

Adam was asked to describe what most surprised him with the creation of the electronic academic portfolio and he shared the following:

...finding out that employers really do look at them [electronic portfolio]. I thought that this was simply a way for the university to

track what we did, but I was just shocked to find out that we take these portfolios to jobs.

Adam expressed that the most frustrating part of working with Folio-Live (McGraw Hill, 2002) and creating an electronic academic portfolio was: “The fact that we don’t really work with them [electronic academic portfolio] until the end of the semester, and then it’s a rush to slap them on.” He believed there should be a stronger emphasis from professors throughout the semester to continue working on the academic portfolio.

The researcher asked Adam to describe how the development of this academic portfolio contributed to your competence as a novice teacher Adam replied:

I think it [Folio-Live] makes me understand that technology is here, and we have to face it [technology]. It [Folio-Live] helps me see that my students will need this type of technology involvement to be successful in the real world.

Adam shared with the researcher that the creation of the electronic academic portfolio had little effect on his motivation to learn.

None. I can’t say that I am thinking of my portfolio while I’m working on a project. However, knowing that it’s going to be uploaded for everyone to see encourages me to produce better work.

When asked to describe how the electronic academic portfolio influenced the role that you played in your own assessment and evaluation of performance Adam stated: “I just thought would I hire me based on this sample?”

Adam was not confident that the creation of the electronic academic portfolio helped him to assume more responsibility for his own learning. “I am not sure that it [electronic academic portfolio] helped me read better, or retain more information, but it helped me to be conscience of conventions, and what was professional.”

Adam explained that the portfolio helped him experience the relationship between effort and results by “Knowing that the final project was going to be used in a portfolio that could possibly decide whether or not I get a job made me work harder.”

Adam is a traditional age student who took the Introduction to Education class at this institution. During this class the electronic academic portfolio was introduced and created. During interview number two Adam was asked to describe the purpose of an academic portfolio.

I think the purpose of an academic portfolio is to show off your skills and accomplishments throughout your academic career.

The researcher asked Adam how he reflected on his artifacts before uploading them to Folio-Live (McGraw Hill, 2002) he stated: “I just go over them (artifacts) and make any changes that my instructor suggested. I look for grammatical errors, and punctuation.”

Adam believes he assumed responsibility for his own learning by the way he treats school like a job. He sets priorities and places education at the forefront.

I treat school like a job, except I’m the employer and employee. It’s my job to make sure that I keep up with the readings, activities and

assignments. I know that school comes first right now, so I work hard.

In return I get to reward myself.

Adam evaluates his learning by making connections to real-world situations.

He wants to be able to apply what he has learned in class into the field.

If I can explain in details what we are learning to my parents, or apply it in a classroom that I'm subbing in, then I know that I'm taking things away from class. I don't focus on how well I take a test, because I really struggle with tests, but if I can apply it in real life, then I know I've actually learned the information.

The researcher asked Adam during interview number two how Folio-Live (McGraw Hill, 2002) could assist him in examining your educational growth and he gave the following response:

It is interesting to look back at the Introduction to Education class and read your philosophy of teaching. Then as we get closer to graduating and we've spent hours and hours in the classroom, we see that we have totally changed our philosophy. It is just good to know that now, you can write an entire unit plan, instead of just one lesson. Through these profiles we can see that now, we are beginning to think and act like teachers.

During interview number three Adam indicated he felt comfortable moving into the professional semester and creating a professional electronic portfolio. Through the creation of the electronic academic portfolio Adam was able to view growth over time.

I have been able to learn how to use Folio-Live and I am able to look back and see that I am a better teacher now than when I began my program. I like being able to use technology to show off my work.

Adam measures value of assignments through his ability to implement the knowledge or assignment in the classroom. Adam spends a minimum of two days a week substituting teaching in area schools.

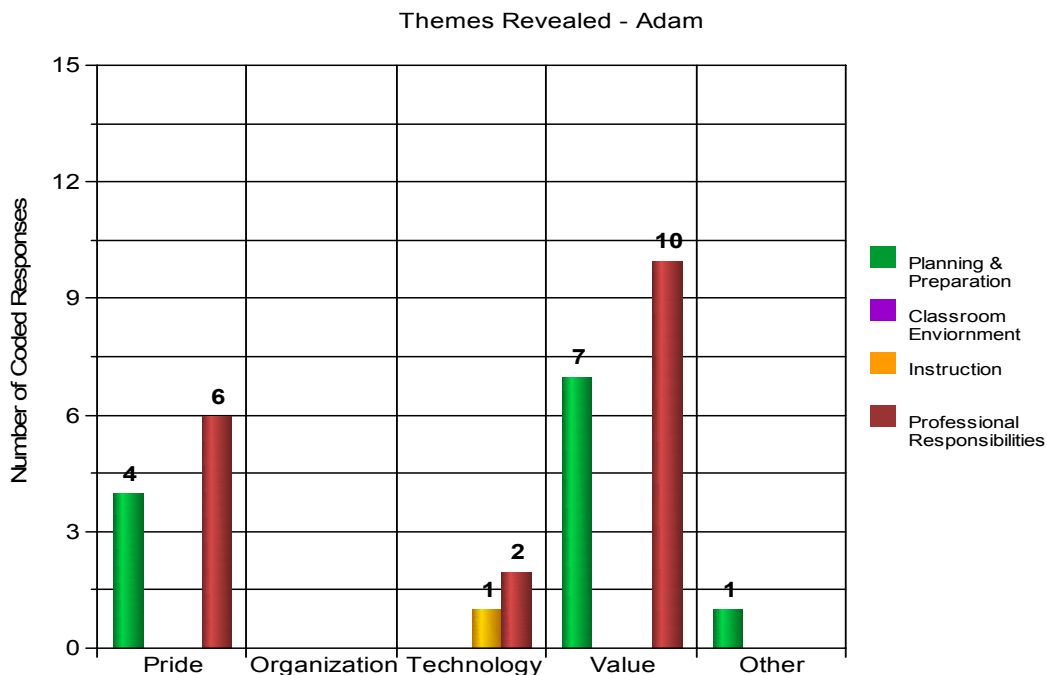
Themes Revealed

After meeting and speaking with Adam and reviewing his responses to the interview questions, the results of the survey and his electronic academic portfolio the research came up with the following insights.

The themes revealed through interviews were value and pride in the in the area of professional responsibilities as well as value in the area of planning and preparation.

The interviews were transcribed and coding chart (Appendix R) and then placed into a bar graph. Figure 4.8 portrays how Adam's themes appeared.

Figure 4.8
Themes Revealed – Adam



Electronic Academic Portfolio

Adam’s electronic academic portfolio had all required artifacts with several additional artifacts in the area of instruction placed within the portfolio. He received an overall rating of a 3.5 on a five point scale for his electronic academic portfolio (Table 4.8) according to the Academic Portfolio Summative Rating Sheet (Appendix E).

Table 4.8

Academic Portfolio Summative Rating Sheet – Adam

	Rating 1 Needs Development	Rating 2 Still Developing Competence	Rating 3 Competence Shown	Rating 4 Effective Competence Shown	Rating 5 Distinguished Competence Shown
Professional Characteristics				X	
Relationships with Students			X		
Instructional Planning				X	
Instruction				X	
Classroom Management			X		
Evaluation			X		

Average Overall Rating: 3.5

The artifacts he added related to his special education minor. He changed the background color on the homepage to depict his personality. Adam enjoys talking about and sharing his electronic academic portfolio. He is able to articulate where he believes growth over time has taken place.

Researcher Insight

Adam had difficulty making the reflection connection to the creation of the electronic academic portfolio. He did not make the connection of the importance of reflection in the growth process and that reflection is a necessary tool in professional growth.

Adam did not fully understand the purpose of an academic portfolio at the beginning of the process. He is now making connections and seeing growth when reviewing artifacts such as his philosophy of education.

Case # 9 – Amy – Ambitious Learner

Amy is a 21-year-old traditional transfer student from two previous four year institutions. She is an Early/Late Childhood K-6 major with a minor in middle level mathematics. She currently has a 3.26 overall GPA with a 3.82 in major GPA. She will student teach during the fall 2006 semester.

Survey

Amy is a transfer student who learned how to use Folio-Live (McGraw Hill, 2002) on her own with little outside support. Since Amy was a transfer student, she participated in a transfer module introducing her to Folio-Live (McGraw Hill, 2002) and the purpose of the electronic academic portfolio. The transfer module was offered during her first clinical experience at the institution.

Amy does believe, however, that the best way to learn new technologies is to participate in formal training classes. She agrees that she cannot be expected to learn new technologies unless given formal training. She does not believe that she has been left behind when it comes to technology.

Amy strongly agrees that she would prefer to learn things as an individual and is not sure if she would like to work with a partner when learning new programs and approaches.

Amy disagrees with the idea that she will be a better teacher because of the creation of an electronic academic portfolio. She disagreed earlier in the survey that an academic portfolio will do little to improve her ability to teach.

Her biggest fear of this technology is embarrassment in front of her peers and/or colleagues. She strongly agrees this new technology is basically one more

bandwagon in a long chain of education innovations which have made little impact on the world of education.

Amy does realize she has more to learn. She strongly agrees that she is really proud of what she has accomplished and believes her electronic academic portfolio demonstrates that she is ready to become a teacher.

Interviews

During interview number one, Amy was asked to comment on the Folio-Live (McGraw Hill, 2002) development. She gave the following statement.

I have not had a very good Folio-Live experience. I didn't take my Introduction to Education course here, so I pretty much learned it on my own. I have just done what is necessary to get by at this point. I am thankful that the instructors usually give you step by step procedures for putting your information in and where it to put it.

Amy was surprised with the fact that she will student teach in the fall and she does not feel like she has a lot of artifacts uploaded to her electronic academic portfolio. She understands she needs to spend more time uploading self-selected artifacts to her electronic academic portfolio. Since Amy was a transfer student, she took classes at other institutions and does not have as many professor-selected artifacts as non-transfer students.

When asked what has frustrated Amy the most during the creation of the electronic academic portfolio she stated:

The time you are asked to give to upload items for classes before you have time for the them [artifacts] to be assessed by the instructor or to

revise on your own. Again, I also felt like I had to learn as I went and still don't really know much about it [Folio-Live].

Amy believes the development of the electronic academic portfolio contributed to your competence as a novice teacher by encouraging her to look at artifacts like her philosophy of education. However, she does not really believe the creation of the academic portfolio has contributed to her competence as a novice teacher. "It has merely been an additional step in the process when there are plenty of other things to do." Amy does not believe the academic portfolio had an effect on her motivation to learn. She considers herself to be naturally motivated and believes that it can be seen in her coursework.

To me Folio-Live is just the place to store things after they are completed for class. I strive for excellence in all my work so that it will benefit me in my future as a teacher, not because of the portfolio.

Amy sees the creation of the electronic academic portfolio as merely an additional step after the assignments are completed. "I focus on my learning without even thinking about the portfolio."

During interview number two the researcher asked Amy to describe the purpose of an academic portfolio. She believes the purpose of the electronic academic portfolio is to have a way for future employer's to view her work and demonstrate technology skills.

When Amy was asked to describe how she would reflect on her artifacts before uploading them to Folio-Live (McGraw Hill, 2002) she stated:

Reflection usually comes during the time to upload them [artifacts] at the end of the semester, so I don't feel like I ever really have the time I need to reflect on them [artifacts] before I upload them. I do address any notes made by my professors before uploading them [artifacts].

During interview number three, the researcher asked Amy to address how the process of creating an academic portfolio will help in selecting artifacts for the creation of the professional portfolio. She is not sure how the process of creating the academic will help but believes she will go back and review the artifacts in her portfolio more closely.

The researcher asked Amy to describe her thoughts on self-selection of artifacts to be placed in the academic portfolio rather than having professor selected artifacts. She thought often times there were other units or lessons that she would rather upload and would like to have the opportunity to self-select her artifacts for the electronic academic portfolio.

Amy described that she placed a higher value on assignments completed for class if she felt like she was really going to be able to use them in the field. She wanted to see a real life connection

During the interview, Amy states there is nothing yet that she is most proud of in her experience with creating an electronic academic portfolio. She does state that she has seen some growth when reviewing her electronic academic portfolio, especially in the area of writing lesson plans.

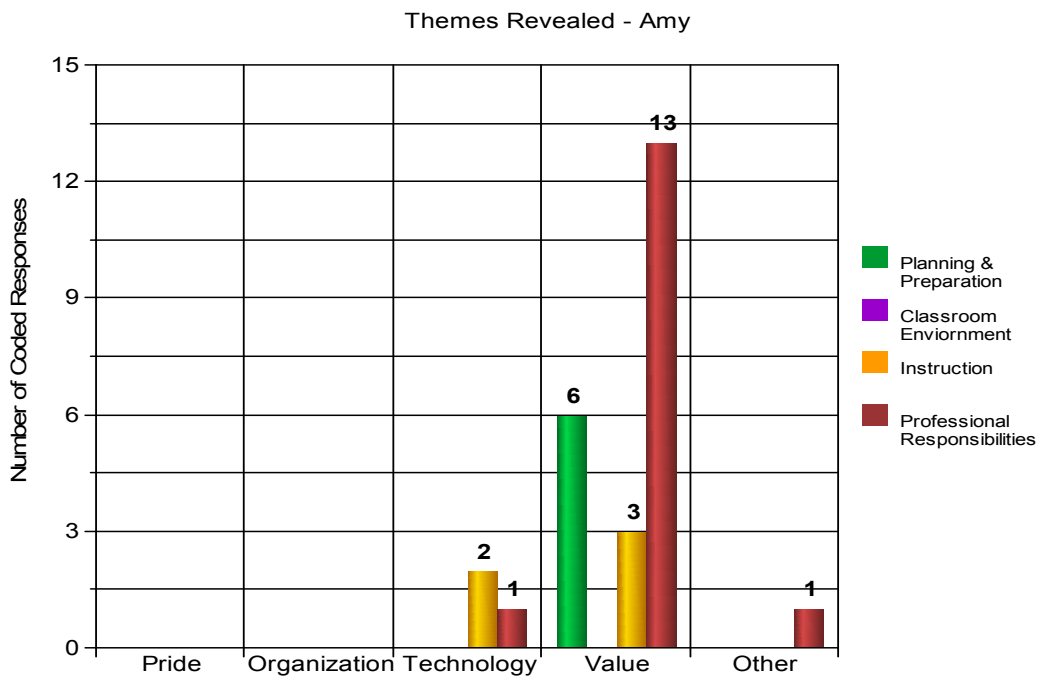
When asked how the artifacts in her academic portfolio demonstrate that she is ready to enter the professional semester, she states: "I think that they show that I

am capable of thinking out the lesson and objectives that need to be met in the classroom.” Again, Amy expressed her beliefs that she places higher value on the artifacts that she feels will be beneficial in the classroom when she is teaching.

Themes Revealed

The interviews were transcribed and coding chart (Appendix R) and then placed into a bar graph. Figure 4.9 depicts how Amy’s themes appeared.

Figure 4.9
Themes Revealed – Amy



Electronic Academic Portfolio

Amy’s electronic academic portfolio has all required artifacts uploaded and in the correct place within the framework. She included additional artifacts uploaded to the portfolio relating to her mathematics minor. Amy received an overall rating of a

3.66 on a five point scale on her electronic academic portfolio (Table 4.9) according to the Academic Portfolio Summative Rating Sheet (Appendix E).

Table 4.9
Academic Portfolio Summative Rating Sheet – Amy

	Rating 1 Needs Development	Rating 2 Still Developing Competence	Rating 3 Competence Shown	Rating 4 Effective Competence Shown	Rating 5 Distinguished Competence Shown
Professional Characteristics			X		
Relationships with Students			X		
Instructional Planning				X	
Instruction				X	
Classroom Management				X	
Evaluation			X		

Average Overall Rating: 3.5

She did not include additional reflections other than the reflections required by professors. Amy is more than happy to talk about and share her portfolio.

Researcher Insight

After meeting and speaking with Amy and reviewing her responses to the interview questions, the results of the survey and her electronic academic portfolio the research came up with the following insights.

Amy does not understand the purpose of the academic portfolio and confuses the academic portfolio with a professional portfolio.

It is interesting that Amy thinks her portfolio does not contain enough information and she also states that she would like to self-select artifacts. Teacher candidates have been encouraged from the beginning to add self-selected artifacts.

When Amy answered the survey question of finding pride in her academic portfolio she said she highly agreed. During the third interview Amy stated that there was really nothing she was proud about in her electronic academic portfolio.

Case # 10 – Shelly – Outspokenly Confident

Shelly is a 22-year-old traditional college student. She is an Early/Late Childhood K-6 major with a minor in ESOL. She currently has a 3.52 overall GPA with a 3.9 in major GPA. She will student teach during the fall 2006 semester.

Survey

Shelly took the Introduction to Education course from the institution and received formal training on how to use Folio-Live (McGraw Hill, 2002) to create an electronic academic portfolio. Shelly does not believe that Folio-Live (McGraw Hill, 2002) has been easy to learn, however, she does not think the best way to learn new technologies is to participate in formal training. She does think she can be expected to learn new technologies with formal training and prefers to learn things as an individual. Shelly also states that she believes she does best with new programs and approaches when she can learn with a partner. She is not afraid of technology and does not believe she has been left behind. She is comfortable using technology in front of peers.

Shelly believes this new technology is basically one more bandwagon in a long chain of education innovations which have made little impact on the world of education. She agrees that sometimes there is just too much change too fast without enough thought and planning.

Shelly has made progress with Folio-Live (McGraw Hill, 2002) during her time at this institution and believes the creation of an academic portfolio will improve her ability to teach and will help her to be a better teacher. She also realizes she has more to learn, but is proud of what she has accomplished and believes her academic portfolio demonstrates she is ready to become a teacher.

Interviews

During interview number one the researcher asked Shelly to comment on the Folio-Live (McGraw Hill, 2002) development. She stated:

My thoughts towards Folio-live are quite contrasting. I think it will be nice to have something on a digital file that interviewers can look at over the internet. This will save me the pain of mailing or submitting them [portfolio] in person. However, it seems like Folio-Live still has a lot of kinks that need to be worked out. It [Folio-Live] can be quite fickle. Sometimes it allows you to upload documents [artifacts], and sometimes it acts like it is just too overloaded.

Shelly really did not find anything surprising with Folio-Live (McGraw Hill, 2002) or the creation of the electronic academic portfolio. Her frustrations with Folio-Live (McGraw Hill, 2002) and the creation of the electronic academic portfolio is the way the matrix is set up.

Although I know how they [matrix categories] work now, when I first began to use it [Folio-Live] it didn't make a whole lot of sense. I mean, each category has a main heading and then sub-categories.

Some of the sub-categories share the same name and since the main categories aren't very distinguishable this can be quite confusing.

When asked how the development of the electronic academic portfolio contributed to her competence as a novice teacher she states:

It has perhaps helped me to keep everything in a central location – since I am a teacher in training, it helps to know what kinds of documents I need to keep and have a place to store them that more experienced teachers can view and help me with. In short, it keeps me accountable to my work and organized with my work.

Shelly does not believe the creation of the electronic academic portfolio has had any effect on her motivation to learn. However, when asked what influence the portfolio played on her own assessment and evaluation of performance she stated:

Since I know that others will be viewing this, I want to make sure that I turn out my very best work possible. With this in mind, I try to really critique my own work and view it from another's perspective. I'd like to think that I hold my standards a little bit higher.

Shelly did believe that when you come to the realization that your work will be viewed by more than one person it caused her to take additional steps in evaluating her personal work.

When asked how the electronic academic portfolio helped her to experience the relationship between effort and results she shared:

Well, it's one thing to just get something done for a grade, but it's quite another to put it on display for the whole world to see. If there

was something that I'd written that wasn't good enough for the whole world to see, then I had to redo it. I still feel though that the impact of the results won't be felt until the first time I turn it in with my résumé to a potential employer. I think that then I will really realize what it feels like to get results.

During interview number two the researcher asked Shelly to describe the purpose of an academic portfolio.

I believe the purpose of an academic portfolio is to keep a record of things that I have accomplished that can be used as a resource for future employers so that they can get a fuller perspective on my capabilities. It is also useful for me to see how I have progressed in my education experience.

The researcher asked Shelly to describe how she would reflect on her artifacts before uploading them to the electronic academic portfolio.

I usually try to remove myself as much as possible from my personal emotions and thoughts when I review work I've done to gain the most outside perspective possible – does everything make sense, would it leave an outside reader with the wrong impression of me? I also try to reflect on whether or not what I have written is truly my own thoughts/opinion, or just material that I have regurgitated but not really internalized.

Shelly takes responsibility for her learning by doing her own work. She does not want to just survive school. Shelly wants to make a difference and learn along the

way. “I want to be one who truly has a love for learning and values the journey just as much as the final destination.”

Shelly described how she evaluates her learning. She said if she can explain or tell someone else what she has learned she is more likely to be able to recall the information when needed at a later date. She also values real life experiences. She desires for there to be a connection to the real world. “If no connection is made from the textbook to the real world, I find it irrelevant even if the information presented seems logical and plausible.

When asked how Folio-Live (McGraw Hill, 2002) could assist in examining her educational growth she stated:

Since it [electronic academic portfolio] is a record of all the work that I have accomplished over the past several semesters, it serves well as a means of showing how far I’ve come and how much my writing style, thinking level, and opinions/ideals of the world have changed. It is easy for me to just click on a document that I created two years ago and compare it to something that I have written two months ago.

During interview number three the researcher asked Shelly to address how the creation of the electronic academic portfolio will assist her in the selection of artifacts for the professional portfolio. She stated:

I think it will help me narrow down my options and make the overall process much easier than if I were just starting from scratch and since I know those artifacts have already been critiqued by other people, I can be confident that they are worthy artifacts.

The researcher wanted to know Shelly's thoughts on self selection of artifacts to be placed in the academic portfolio rather than having professor selected artifacts.

I have to say that I would rather have someone that knows a lot more than I do tell me which would be the best artifacts to include in my academic portfolio. If this were left up to me, I may pick things [artifacts] that were my best writing but not necessarily the most relevant, or vice versa; it really makes the whole process a lot easier on me to have artifacts to focus on that are relevant and well-written.

Shelly described how she placed value on assignments completed for class during interview number three.

If I know that an assignment will be relevant to my future career and in making me a more experienced educator, I place great value on an assignment – if it seems totally irrelevant to my future, I place very little value on it.

In response to the question of what Shelly was most proud of during her experience of creating an electronic academic portfolio she gave the following answer.

I would have to say that an artifact that I am quite proud of would be the Social Studies unit that I created because it took me quite a bit of thought and planning, and it is the most in-depth assignment I have ever done; it's nice to work really hard to produce an artifact that I know will be useful to my future career.

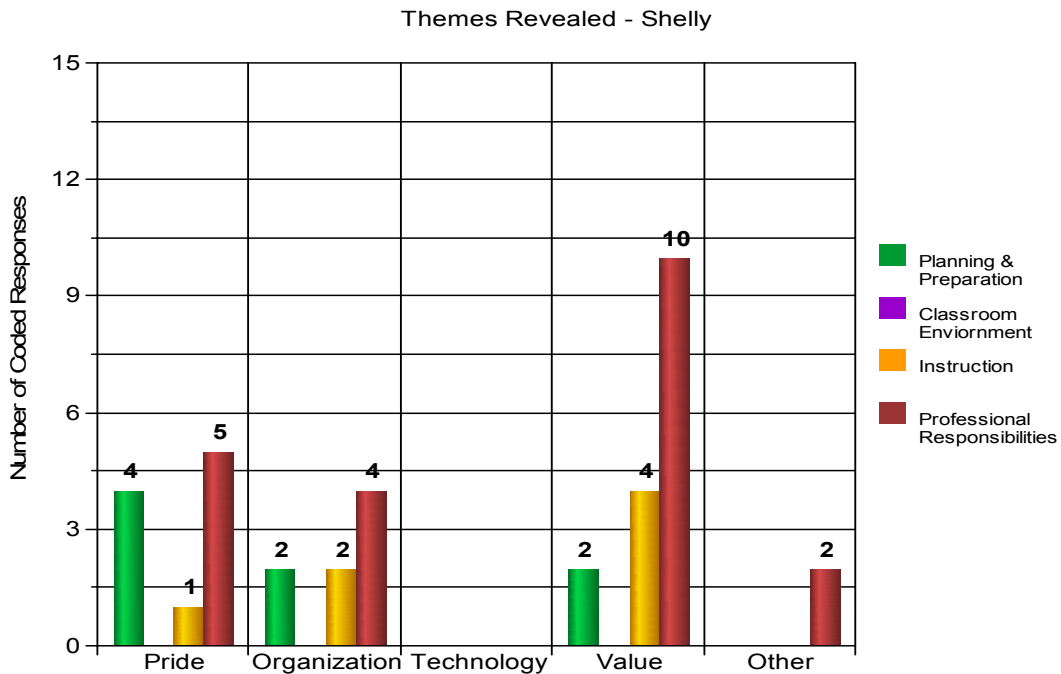
Shelly has seen growth in herself, especially in the area of writing. She has developed a new perspective on the world around her. She believes throughout her education she has broadened her horizons and views life in a different manner than she did when she began school.

Her artifacts in the academic portfolio demonstrate that she is ready to enter the professional semester she considers that it is very important to set a high standard of excellence. Shelly believes by setting high standards you can get the very best results from your time and effort you give to become an educator.

Themes Revealed

The interviews were transcribed and coding chart (Appendix R) and then placed into a bar graph. Figure 4.10 illustrates how Shelly's themes appeared.

Figure 4.10
Themes Revealed 4.10



Electronic Academic Portfolio

Shelly had all required artifacts uploaded to the electronic academic portfolio along with all required reflections. She received a 3.66 overall rating on a five point scale for her electronic academic portfolio (Table 4.10) according to the Academic Portfolio Summative Rating Sheet (Appendix E).

Table 4.10
Academic Portfolio Summative Rating Sheet – Shelly

	Rating 1 Needs Development	Rating 2 Still Developing Competence	Rating 3 Competence Shown	Rating 4 Effective Competence Shown	Rating 5 Distinguished Competence Shown
Professional Characteristics				X	
Relationships with Students			X		
Instructional Planning				X	
Instruction				X	
Classroom Management				X	
Evaluation			X		

Average Overall Rating: 3.66

Shelly did not upload any additional self-selected artifacts to demonstrate she has met University Professional Knowledge Base objectives (Appendix B). She is very happy to talk about and share her electronic academic portfolio. She is able to verbalize where she has grown professionally over time.

Researcher Insight

After meeting and speaking with Shelly and reviewing her responses to the interview questions, the results of the survey and her electronic academic portfolio, the research came up with the following insights.

Shelly is not making the connection with the matrix and the University Professional Knowledge Base (Appendix B) and the electronic portfolio framework.

Shelly does not understand the purpose of the academic portfolio. She believes this portfolio is to be shown to future employers. She does not have the insight to see that the electronic academic portfolio is to show growth over time and is a tool for professional growth.

Case #11 – Brenda – Bandwagon Skeptic

Brenda is a 33-year-old non-traditional transfer student from a four year institution and a community college. She began school after high school and quit to marry and have a family. She recently returned to school at community college and then transferred to this institution. She is an Early/Late Childhood K-6 major with a minor in Special Education. She currently has a 3.0 overall GPA with a 3.64 in major GPA. She will student teach during the fall 2006 semester.

Survey

Brenda is a transfer student who learned how to use Folio-Live (McGraw Hill, 2002) during a transfer module offered at the institution during her first clinical experience. She was instructed how to use and create as well as the purpose for creating an electronic academic portfolio. Brenda then took the Introduction to Education course from this institution and received additional formal training on how to use Folio-Live (McGraw Hill, 2002) to create an electronic academic portfolio.

Brenda did not believe that Folio-Live (McGraw Hill, 2002) was easy to learn and thinks the best way to learn new technologies is in formal training classes which demonstrate how to use the technology. She is not sure whether she likes to learn

new things on her own, but later in the survey admits to wanting to learn new things with a partner.

Brenda believes that this new technology is basically one more bandwagon in a long chain of education innovations which have made little impact on the world of education. She does not however, believe that there is too much change too quickly without enough planning and support.

Brenda does believe that the creation of an electronic academic portfolio will do little to improve her ability to teach and does not consider her a better teacher because of the process of creating an electronic academic portfolio. She is not proud of what she has accomplished and does not feel her academic portfolio demonstrates that she is ready to become a teacher.

Interviews

During interview number one the researcher asked Brenda to briefly comment on the Folio-Live (McGraw Hill, 2002) development for her. She thought the process was very good and the artifacts required were good selections. She believes the electronic academic portfolio keeps everything all together for easy access. The electronic academic portfolio has helped to keep Brenda organized.

She was surprised to find how easy it was to use Folio-live. She was frustrated with the cost of renewal for Folio-Live (McGraw Hill, 2002) but would not be able to create an electronic academic portfolio without the program. She is lacking in computer technology skills.

When asked what effect the portfolio had on her motivation to learn she gave the following response. "It [Folio-Live] made me want to do better because others

would see my work.” Brenda looked more at her work and what she completed in her classes because of the requirement of Folio-Live (McGraw Hill, 2002) and the electronic academic portfolio. The creation of this academic portfolio had helped Brenda to see the more she works the better her artifacts were.

During interview number two the researcher asked Brenda to describe the purpose of an academic portfolio. “To be able to show what you are able to do. Showing what you learned at the college helps the school know what you can do.” She believes the creation of the electronic academic portfolio has encouraged her to take a closer look at her work before uploading items to the portfolio.

The researcher asked Brenda to describe how she assumes responsibility for her own learning she answered she studies as much as she can so that she can have pride in her work. She reflects on her artifacts before uploading them to the electronic academic portfolio by checking over the artifacts and making sure they look good.

When asked to describe how she evaluates her learning Brenda expressed that she merely looks back at what she has completed and compares this to what she can do now. If she can see a difference then she believes learning has taken place.

Brenda described what constituted value for her in the learning process and replied “anything that will help me be a better teacher.” She wants to do well and tries to make sure her artifacts are quality.

The researcher asked Brenda to explain how Folio-Live (McGraw Hill, 2002) and the creation of the electronic academic portfolio will assist her in examining her

educational growth and she replied: “I can see what I did at the beginning and see how I have changed and grown.”

During interview number three the researcher asked Brenda how the creation of the electronic academic portfolio will help when selecting artifacts for the professional portfolio created during the professional semester she stated: “It [Folio-Live] helps because you find out what should be in it [academic portfolio] and what should not.”

When asked to describe thoughts on self selection of artifacts to be placed in the electronic academic portfolio rather than having professor selected artifacts she stated: “Most people have a hard time at first understanding what needs to go in it [electronic academic portfolio]. So first it is nice to be told but later we need to do it [self select artifacts].”

Brenda perceived growth in the area of writing lesson plans. She believes that the electronic academic portfolio demonstrates that she is ready to teach because her lesson plans kept getting better. She was able to see improvement for herself over time.

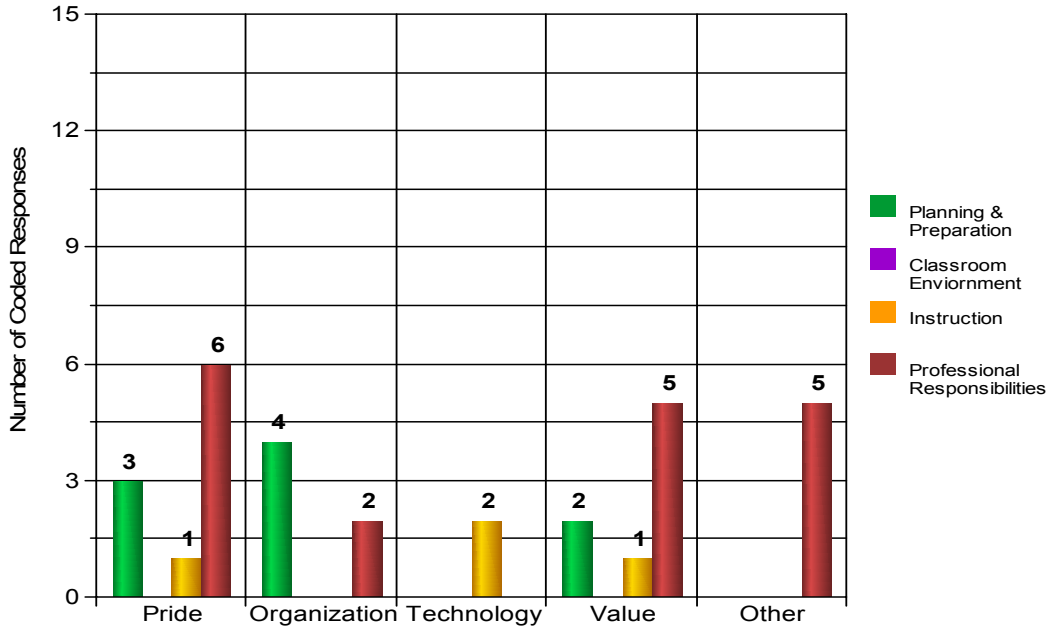
Themes Revealed

The interviews were transcribed and coding chart (Appendix R) and then placed into a bar graph. Figure 4.11 depicts how Adam’s themes appeared.

Figure 4.11

Themes Revealed – Adam

Themes Revealed - Brenda



Electronic Academic Portfolio

Brenda has all required artifacts uploaded to the academic portfolio along with several self-selected artifacts to demonstrate that she has met additional objectives from the University Professional Knowledge Base (Appendix B). She received an overall rating of 3 on a five point scale for her electronic academic portfolio (Table 4.11) according to the Academic Portfolio Summative Rating Sheet (Appendix E).

Table 4.11
Academic Portfolio Summative Rating Sheet – Amy

	Rating 1 Needs Development	Rating 2 Still Developing Competence	Rating 3 Competence Shown	Rating 4 Effective Competence Shown	Rating 5 Distinguished Competence Shown
Professional Characteristics			X		
Relationships with Students			X		
Instructional Planning			X		
Instruction			X		
Classroom Management			X		
Evaluation			X		

Average Overall Rating: 3

She only has the reflections required by professors uploaded to her electronic academic portfolio. Brenda did include an introduction about herself on her homepage. She is more than willing to share her electronic academic portfolio.

Researcher Insight

After meeting and speaking with Brenda and reviewing her responses to the interview questions, the results of the survey and her electronic academic portfolio the research came up with the following insights.

Brenda did not express an understanding of the concept or purpose of the electronic academic portfolio. However, during the interview she was able to address the issues behind the purpose of an academic portfolio. Brenda was unable to express that the electronic academic portfolio was a learning portfolio to track professional growth while the professional semester to be created during the professional semester will be the showcase to share with future employers. However, throughout the

interviews her responses to the questions demonstrated that she was able to see growth over time.

Teacher Candidate Perception Survey

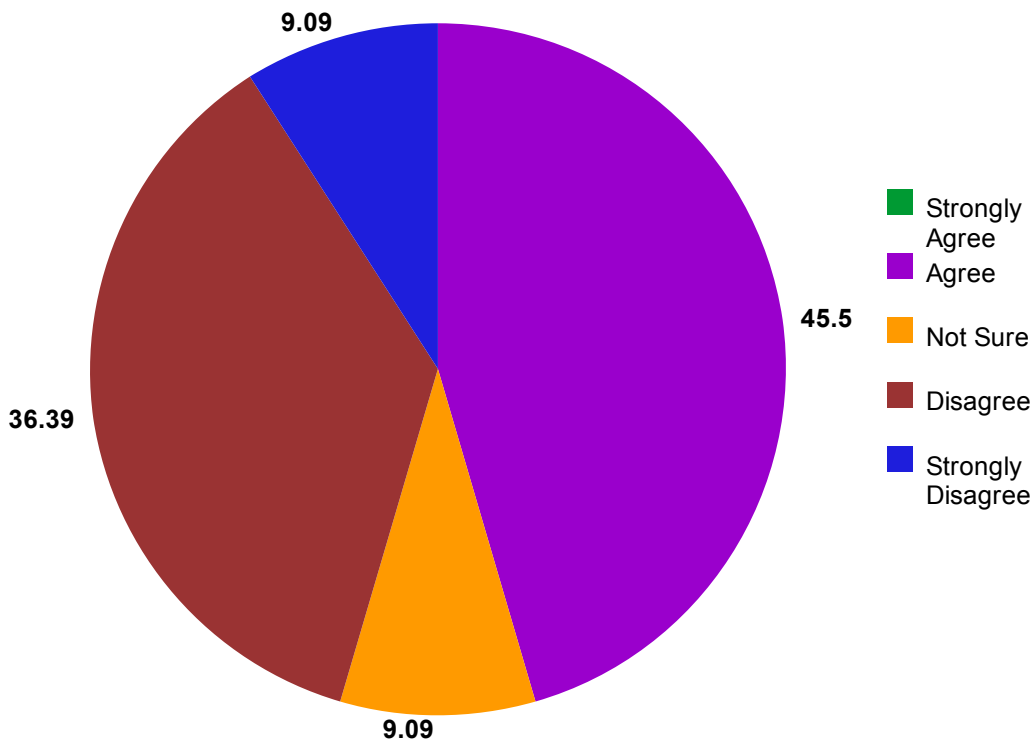
The teacher candidate perception survey (Appendix M) was given twice to all teacher candidates participating in this study. The survey results were informative and assisted in analyzing teacher candidate perceptions. Each of the following graphs illustrates teacher candidate responses to the initial perception pre-survey given on Blackboard.

Figure 4.12 addresses teacher candidate's perceptions for the need for outside help with the commercial program used to create the electronic academic portfolio. Eleven teacher candidates participated in the study and 45.5% of the teacher candidates reported that the electronic academic portfolio was easy to use with outside help. While 36.39% of teacher candidates disagreed and 9.09% of teacher candidates strongly disagreed with the need for little outside help. 9.09% of teacher candidates reported they were not sure that he/she was able to learn how to use the commercial program with little outside help.

Figure 4.12

Teacher candidate perceptions for the need of outside help with the commercial program

Folio-Live has been easy to learn with relatively little outside support.



Overall 45.5% of teacher candidates participating in this study believed the need for outside help was necessary in order to use the commercial product to create the electronic academic portfolio.

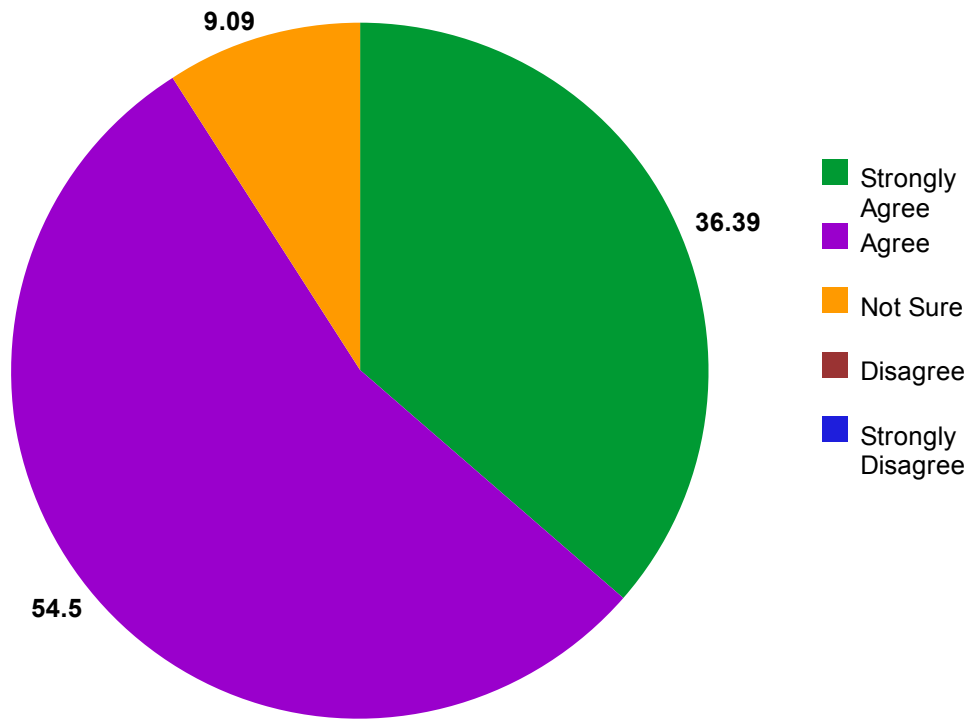
Nine of the eleven teacher candidates are transfer students and six of the eleven teacher candidates took the Introduction to Education course at the institution. During this class teacher candidates are introduced to Folio-Live (McGraw Hill, 2002) and given formal training on how to create an electronic academic portfolio. The remaining five teacher candidates participated in a transfer module given during the first clinical experience at the institution in which they received formal training on how to use Folio-Live (McGraw Hill, 2002) and create an electronic academic portfolio.

Figure 4.13 illustrates progress reported by teacher candidates during his or her time at the institution. 36.39% of teacher candidates strongly agreeing while 54.5% agreed and 9.09% are not sure he/she made progress while using Folio-Live (McGraw Hill, 2002) at the institution. Overall, most of the teacher candidates perceive he/she made progress in learning how to use Folio-Live (McGraw Hill, 2002) and creating an electronic academic portfolio while at the institution.

Figure 4.13

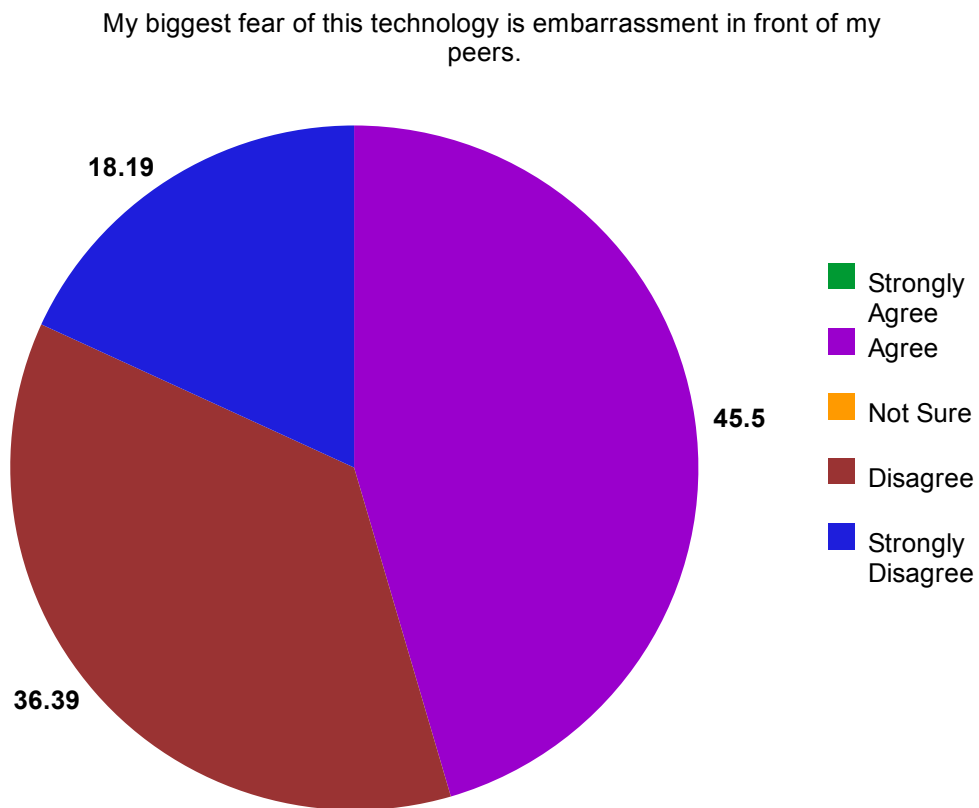
Teacher candidate perceptions of progress made in learning how to use the commercial program to create an academic portfolio

I have made progress during my time at the institution in learning how to use Folio-Live to create an academic portfolio.



When teacher candidates were asked about fear of this technology being embarrassing in front of peers and colleagues, 45.5 % of teacher candidates agree while 36.39% of teacher candidates disagree and 18.19% of teacher candidates strongly disagree. Figure 4.14 illustrates teacher candidate perceptions. Overall, 54.58% of teacher candidates are not fearful of embarrassment in front of peers and colleagues.

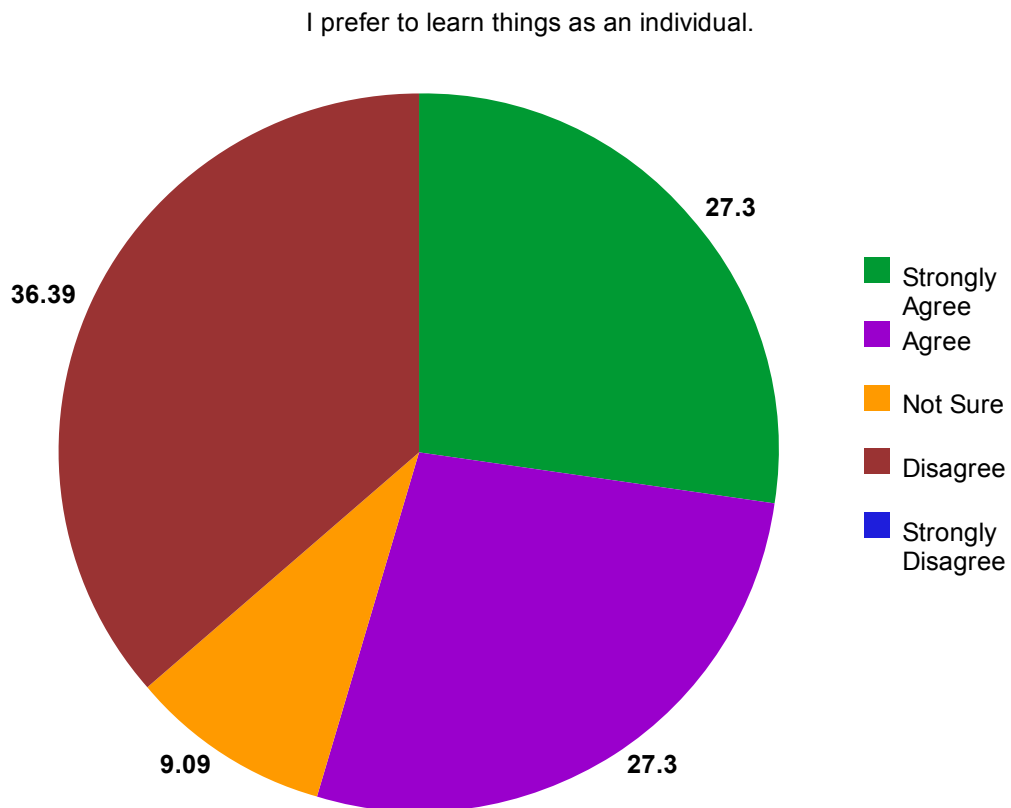
Figure 4.14
Teacher candidate perceptions of embarrassment of using technology in front of peers



Teacher candidates were asked if he/she preferred to learn things as an individual. In this study 36.39% of teacher candidates do not want to learn new things individually, while 9.09% of teacher candidates are not sure. 27.3% agreed and 27.3% strongly agree with learning things individually. Figure 4.15 illustrates teacher candidate's perceptions. Overall, 54.6% of teacher candidates prefer to learn things individually.

Figure 4.15

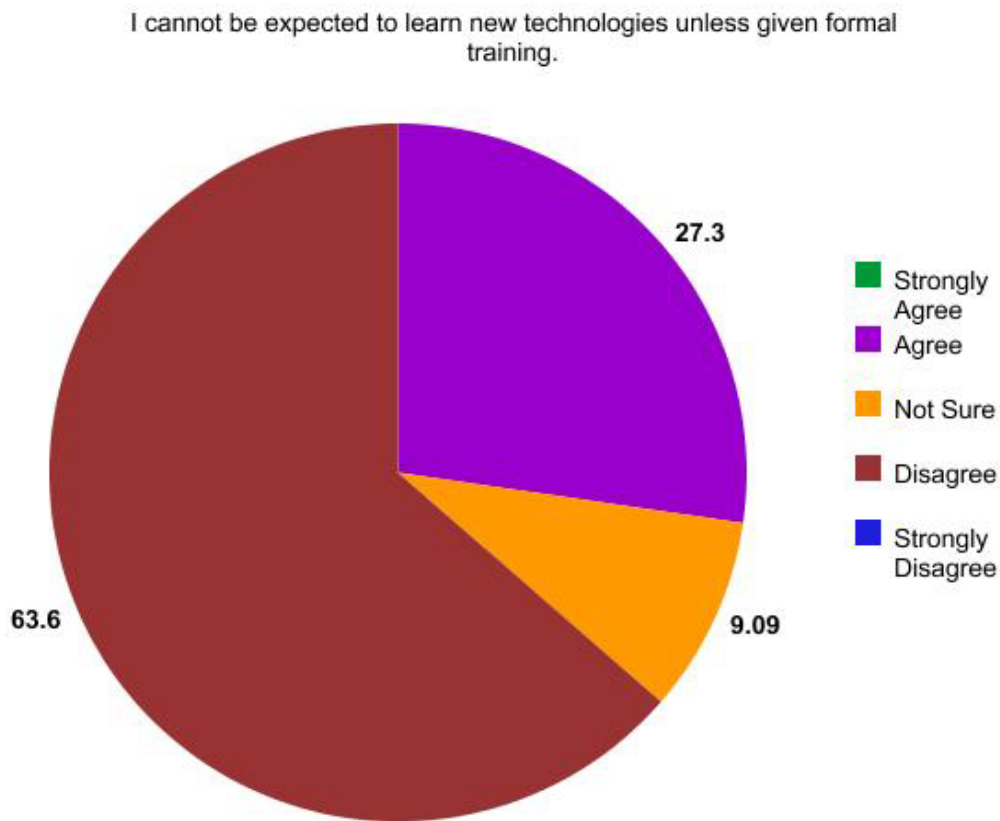
Teacher candidate perceptions of preference to learn things as an individual



When teacher candidates were asked about expectations of learning new technologies unless given formal training, 63.6% of teacher candidates disagree while 9.09 % of teacher candidates are not sure and 27.3% of teacher candidates believe they cannot be expected to learn new technologies unless given formal training. Figure 4.16 illustrates teacher candidate's perceptions. Overall, teacher candidates believed they could be expected to learn new technologies without formal training.

Figure 4.16

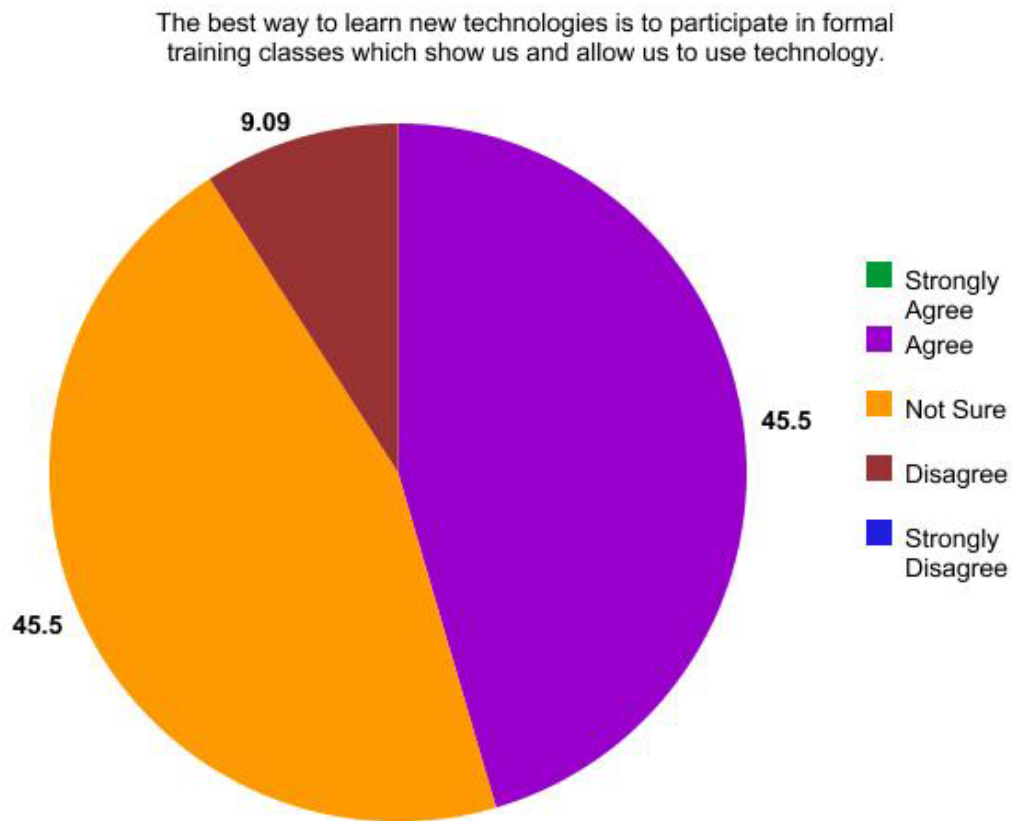
Teacher candidate's perceptions of learning technology without formal training



When teacher candidates were asked about needing formal training classes to learn new technologies, 45.5% of teacher candidates agreed while 45.5% of teacher candidates were not sure and 9.09% of teacher candidates disagreed. Figure 4.17 illustrates teacher candidate's perceptions. Overall 54.59% of teacher candidates do not agree that formal training classes are necessary for new technologies.

Figure 4.17

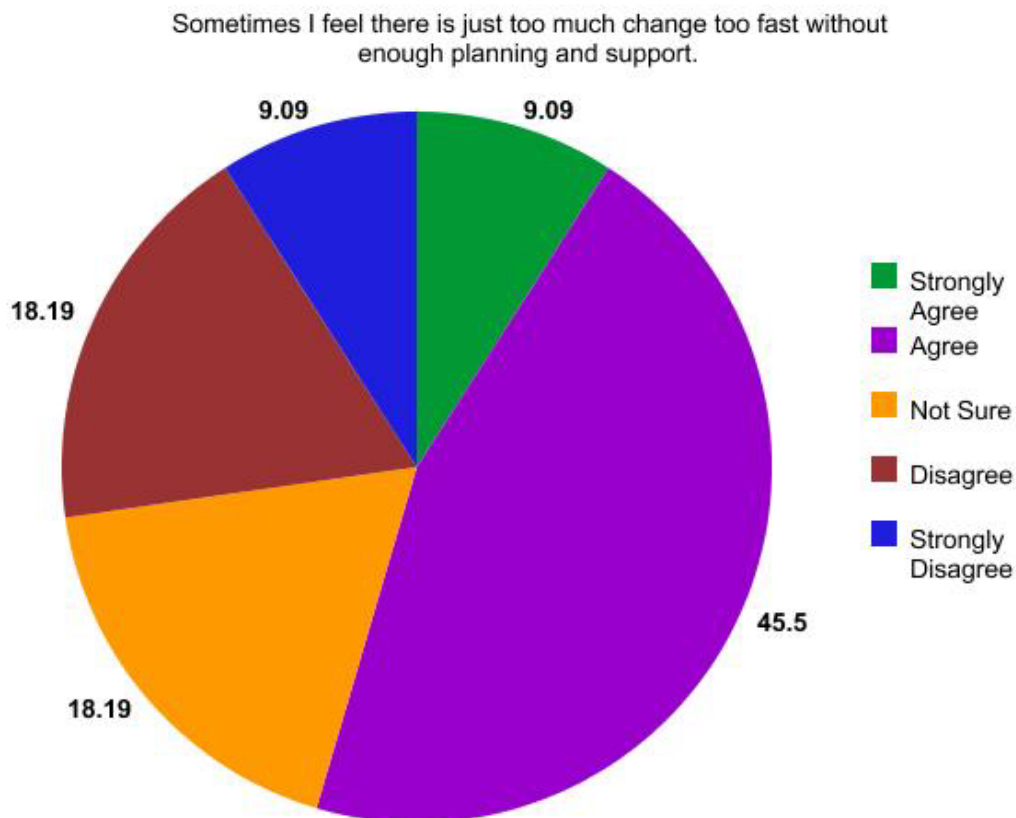
Need for formal training classes when learning new technology



In the ever changing fast paced world of technology, teacher candidates were asked if he/she felt there is just too much change too fast without enough planning and support. 9.09% of teacher candidates strongly agreed there is too much change too fast while 45.5% of teacher candidates agreed. 18.19% were not sure and 18.19% disagreed. Figure 4.18 illustrates teacher candidate perceptions. Overall, 54.59% agreed there is just too much change too fast without enough planning and support.

Figure 4.18

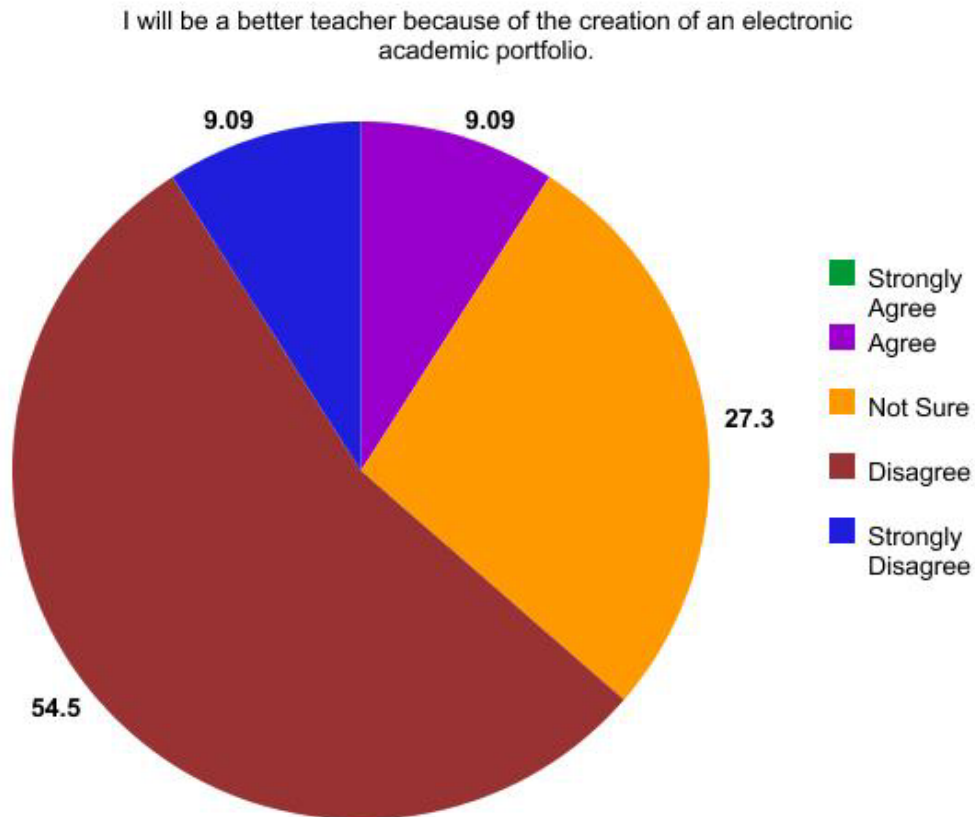
Too much change with not enough planning and support



When teacher candidates were asked if he/she will be a better teacher because of the creation of an electronic academic portfolio 9.09% agreed while 27.3% were not sure 54.5% disagreed while 9.09% strongly disagreed. Figure 4.19 illustrates teacher candidate perceptions. Overall, 63.59% disagree that the creation of an electronic academic portfolio would help them to be a better teacher in the classroom.

Figure 4.19

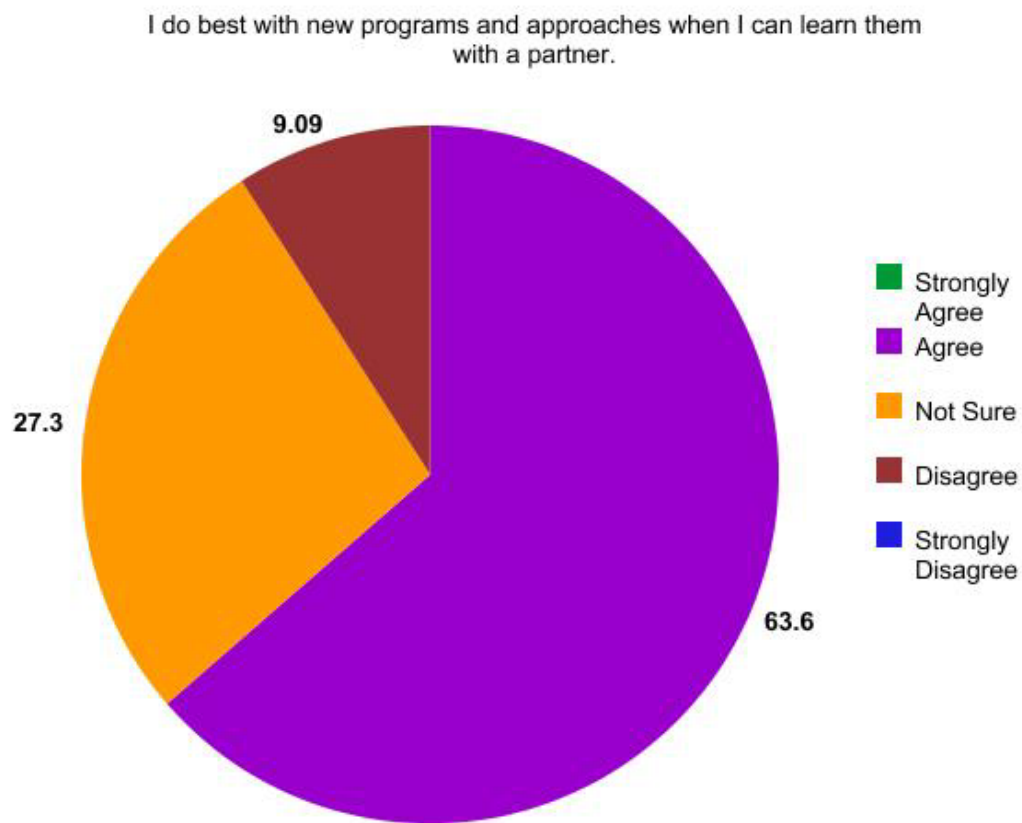
Teacher perceptions of how creating an electronic academic portfolio will enhance teacher performance



In this study when asked if teacher candidates do best with new programs and approaches by learning them with a partner. 63.6% of teacher candidates agreed while 27.3% were not sure and 9.09% disagreed. Figure 4.20 illustrates teacher candidate's perceptions. Overall, 63.6% of teacher candidates agree they do best with new programs and approaches when he/she can learn with a partner.

Figure 4.20

Teacher candidate perceptions of learning with a partner

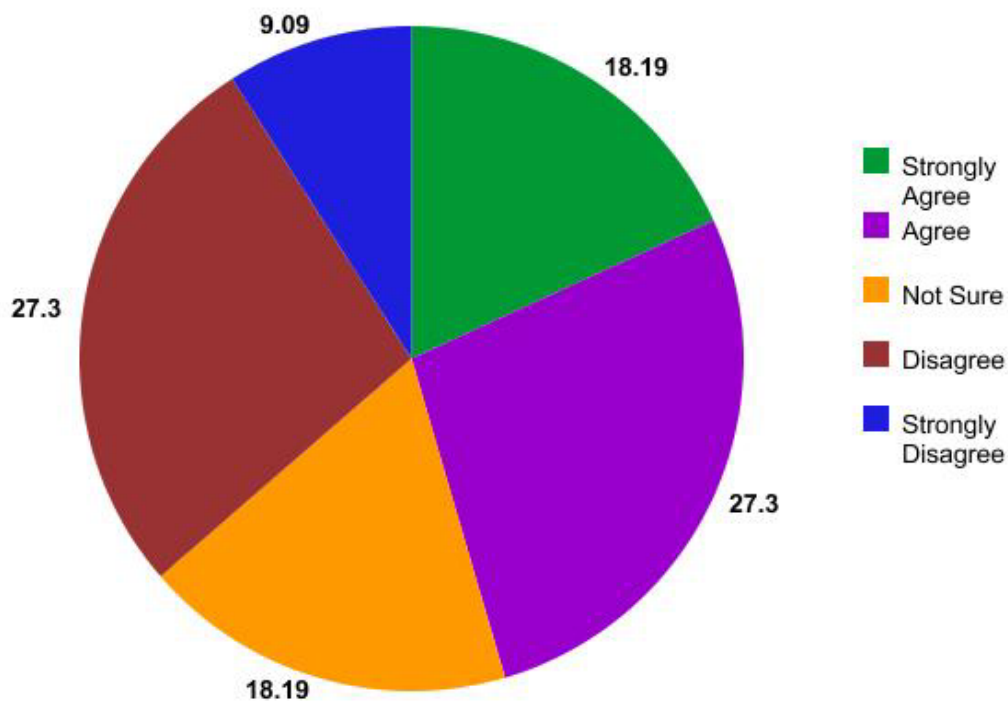


When teacher candidates were asked about this new technology basically being one more education, bandwagon in a long chain of innovation which have made little impact on the world of education 18.19% of teacher candidates strongly agree while 27.3% agree. 18.19% are not sure, 27.3% disagree, and 9.09% strongly disagree. Figure 4.21 illustrates teacher candidate's perceptions. Overall, 45.49% of teacher candidates agree this is just another bandwagon.

Figure 4.21

Teacher candidate perceptions of the electronic academic portfolio technology as another bandwagon in education

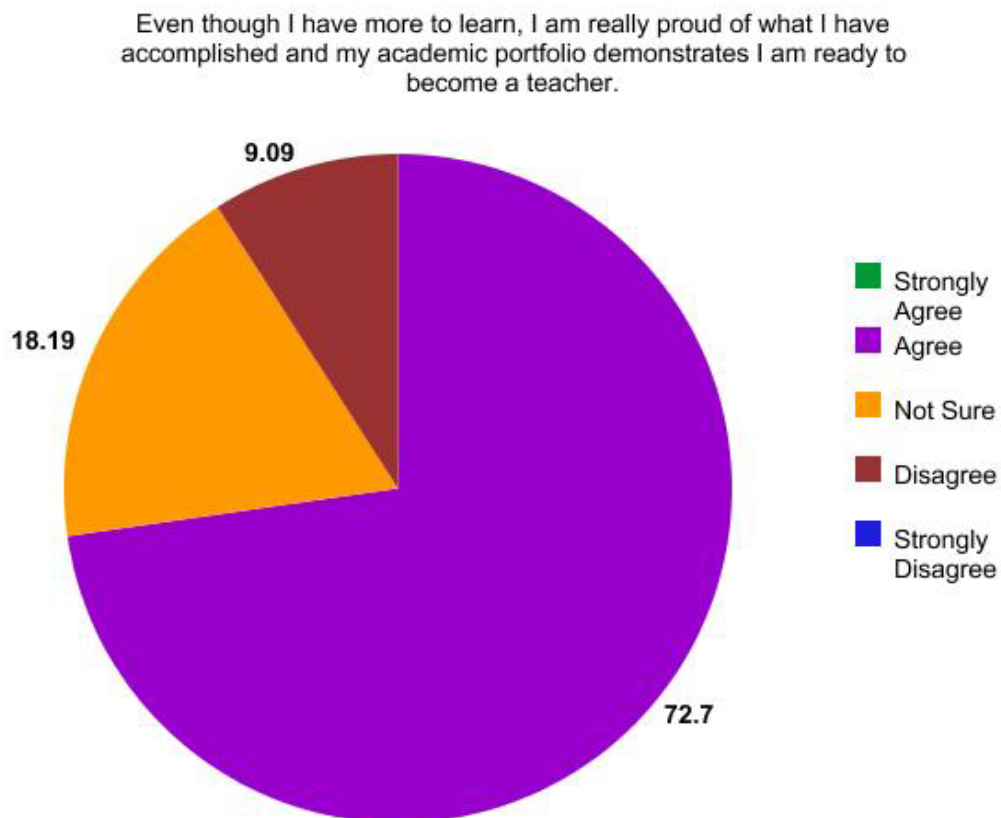
This new technology is basically one more bandwagon in a long chain of education innovations which have made little impact on the world of education.



When teacher candidates were asked about pride in what he/she accomplished, 72.7% of teacher candidates agreed while 18.19% were not sure and 9.09% disagreed. Figure 4.22 illustrates teacher candidate's perceptions. Overall 72.7% agreed that even though he/she has more to learn, he/she is really proud of what he/she has accomplished and his or her academic portfolio demonstrates that he or she is ready to become a teacher.

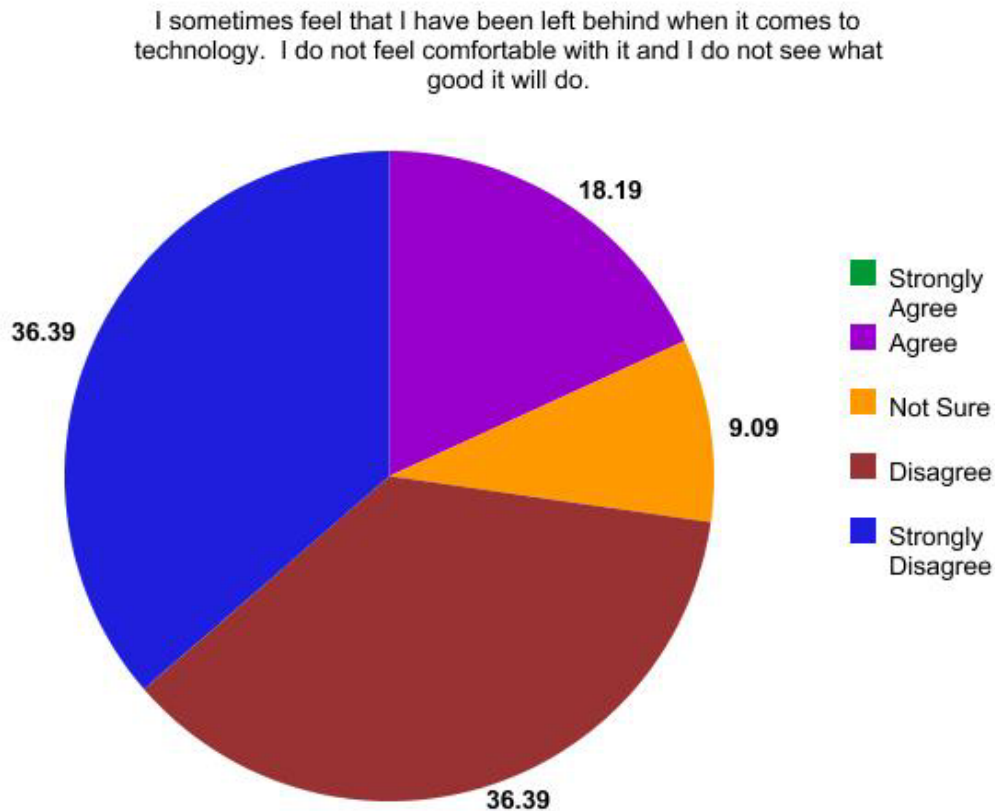
Figure 4.22

Teacher candidate perceptions of pride in accomplishments



When teacher candidates were asked if he/she has been left behind when it comes to technology, 18.19% of teacher candidates agreed while 9.09% of teacher candidates were not sure. 36.39% disagreed and 36.39% strongly disagreed. Figure 4.23 illustrates teacher candidate's perceptions. Overall 72.78% of teacher candidates disagreed and do not believe he/she is being left behind.

Figure 4.23
Teacher candidate's perceptions of being left behind in technology



Analysis of Data

This study examined teacher candidate perceptions of creating an electronic academic portfolio. The researcher analyzed the data collected from the perception survey, interviews, and electronic academic portfolios. A collective case

methodology was used by the researcher to note consistencies and differences in themes across the cases (Stake, 1995). As data were being collected, the overall research question was being addressed.

Teacher Candidate Perception Survey

The teacher candidate perception survey (Appendix M) given at the beginning of the study and the teacher candidate perception survey given at the end of the study reflected the same overall conclusions. The perceptions of teacher candidates did not reflect a change between the two surveys. There was not significant difference between the pre and post survey.

Interviews

The interviews were insightful and the researcher was able to observe teacher candidates when talking about the creation of the electronic academic portfolio. The body language gave beneficial information. Teacher candidates gave honest answers and were not afraid to convey straightforward answers. During the interview sessions with Tristen she had difficulty getting past her frustration with the whole concept of using the commercial product.

Comparison of Themes Revealed

The researcher found that out of the eleven teacher candidates the strongest theme revealed was in the area of finding value in the domain of professional responsibilities. The interesting finding was, however, that not all of the value comments made by teacher candidates were positive. There were some comments that revealed perceptions from teacher candidates that they found less value in a disapproving manner.

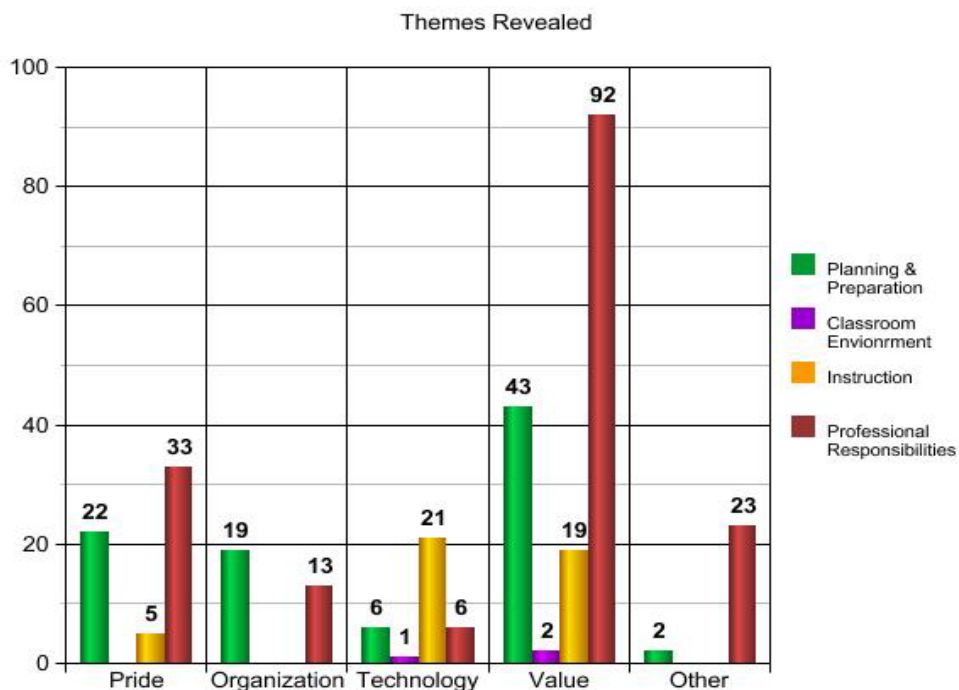
The researcher found a second substantial theme revealed in the area of finding value in the domain of planning and preparation. Teacher candidates repeatedly commented on the fact that the creation of the electronic academic portfolio assisted him or her to plan ahead and not wait until the last minute to create the artifact or to upload the artifact to the portfolio.

The researcher found that the highest commented theme in the area of technology skills was instruction. These comments were also positive and negative. Teacher candidates who did not participate in the Introduction to Education course tended to be more frustrated with the technology than the teacher candidates participating in the transfer module offered within the first clinical experience.

The researcher found the theme of value to be the strongest in all domain areas except for instruction. It is of the researcher's estimation that the theme of value was not strong in the area of instruction for the reason that teacher candidates became easily frustrated with the commercial product used at this institution.

The researcher found the theme of pride was strong in the domain of professional responsibilities and planning and preparation. Teacher candidates were more than willing to share his/her electronic portfolio.

Figure 4.24
Themes Revealed – Group



Electronic Academic Portfolios

The researcher reviewed each of the eleven electronic academic portfolios submitted from teacher candidates. The electronic portfolios were professional in nature and the required artifacts were uploaded successfully. There were only three teacher candidates who added additional artifacts and reflections other than the required artifacts by professors. Two of the three teacher candidates added artifacts related to his or her minor. The third teacher candidate added self-selected artifacts on her own to demonstrate her professional ability. Seven of the eleven teacher candidates changed background colors and changed the clipart to depict individual personality.

Summary of Cross-case Analysis

The examination of the data for this study was carried out using a multi-case study design. Data gained from the surveys, interviews and electronic academic portfolios were placed into individual case studies and then compared by the researcher to find reoccurring themes in the domain areas. The themes were determined by the pilot study.

1. Pride
2. Organization
3. Technology Skills
4. Value
5. Other

Danielson's (1996) Framework for Teaching was utilized to determine the professional preparation perceptions of teacher candidates in the area of four domains.

1. Planning and preparation
2. Classroom environment
3. Instruction
4. Professional responsibilities

CHAPTER 5
SUMMARY, IMPLICATIONS, CONCLUSIONS, AND
RECOMMENDATIONS

So, what does it mean to be a teacher? I know for me, being a teacher means that I must continually grow as a professional and as a person. I want to learn more each day in order to be a better teacher tomorrow. Part of the professional and personal growth will come from reading, research, self-reflection and evaluation in order to make changes in my teaching paradigm.

The purpose of this chapter is to provide conclusions and recommendations concerning the results of this study. A summary of the study will be presented, followed by implications for teacher preparation and conclusions. Finally, recommended topics for further research will be suggested. The study originated from the researcher's interest in using electronic academic portfolios with teacher candidates in the field of teacher preparation.

Summary of Study

The researcher used qualitative methodology during this eight week study to examine the central research question: To what extent do teacher candidates perceive value in the process of constructing an electronic academic portfolio? The following subsidiary questions were also explored:

What steps did the teacher candidates use in the process of developing his or her electronic academic portfolio?

What value did the teacher candidate assign to creating an electronic academic portfolio?

To what extent do teacher candidates demonstrate pride, organization and technology skills in his or her electronic academic portfolio?

The researcher answered these questions by conducting a survey on Blackboard at the beginning of the study and a survey on paper at the end of the study. The first survey was given to identify initial teacher candidate perceptions of creating the electronic academic portfolio. The second survey was given to determine if the original survey results changed.

Three one-on-one interviews with teacher candidates were conducted with teacher candidates. The interviews were tape recorded, transcribed and coded by the researcher and one additional reader with the original themes discovered from the pilot study; pride, organization technology skills and value. The interviews were then cross-coded with Danielson's (1996) Framework for Teaching: Planning and Preparation; Classroom Environment; Instruction; and Professional Responsibilities.

Teacher candidates were also asked to keep an electronic journal addressing the following focus statements.

1. Describe the process you used to create your electronic academic portfolio.
2. Describe your personal frustrations with creating your electronic academic portfolio.
3. Describe your personal triumphs with creating your electronic academic portfolio.

The subjects from this study were selected from teacher candidates currently enrolled in a College of Education in southeast Kansas. The researcher selected the site to conduct the research project because the institution implemented the use of an electronic academic portfolio during the fall 2002 semester.

Teacher candidates were selected by the researcher and the director of teacher placement and asked to participate. Participants in the study volunteered to take part in this eight-week study. The researcher attempted to ensure the anonymity of all participants and referred to teacher candidates in the study by pseudo names selected by the researcher. Information gained from the teacher candidates has in no way effected his or her degree completion at the institution.

The purpose of this study was to determine to what extent teacher candidates perceive value in the process of constructing an electronic academic portfolio. The study also attempted to answer what process teacher candidates used in developing their electronic academic portfolios, and what value teacher candidates assign to each of the steps in the process as well as how the teacher candidate intends to use the academic portfolio after graduation.

The institution in which the researcher is teaching implemented the use of a commercial electronic portfolio, (Folio-Live) beginning the fall semester of 2002. All teacher candidates entering into the program are required to purchase and use the commercial electronic portfolio to create an electronic academic portfolio and will create a professional portfolio during the professional semester using the same program. This study took place during the final semester of course work prior to prior to entering the professional semester. The teacher candidates have been using

Folio-Live (McGraw Hill, 2002) during the introductory education class or the transfer education class and continued to use the program throughout their educational career at the institution.

Findings

The researcher gathered data throughout the eight week study with eleven teacher candidates during the semester prior to the professional semester. The researcher was not expecting the statements given by the teacher candidates to be of a positive or negative manner. Consequently, in further research the researcher would be prepared and change coding to reflect positive and negative statements with each of the themes. Results for the primary and subsidiary research questions will be presented.

Primary Question

To what extent do teacher candidates perceive value in the process of constructing electronic academic portfolio?

The researcher found that initial beliefs of teacher candidates finding value in creating electronic academic portfolios were misleading. The teacher candidates found value in two ways. There were statements given in the interview that provide evidence that the creation of electronic academic portfolios were valuable in a positive way. There were also statements given that provide evidence in a negative manner. The researcher had to explore the idea of value being positive and negative.

Overall teacher candidates view the creation of the electronic academic portfolio as an achievement that must be attained before they may enter the professional semester. The creation is more of a process that is required rather than a

product that can demonstrate the development of professional growth. The electronic academic portfolio can be a great way to log progress and advancement of content as well as practical knowledge.

Subsidiary Questions

What steps did the teacher candidate use in the process of putting together his or her electronic academic portfolio?

Teacher candidates in this study were introduced to Folio-Live (McGraw Hill 2002) and the electronic academic portfolio during the Introduction to Education course or the transfer module within the first clinical experience at the institution. This was the first step in creating the academic portfolio.

The first step in the process was to registrar on Folio-Live (McGraw Hill, 2002) and to create the initial academic portfolio framework. Teacher candidates were led through this process step by step.

The second step in the process was to begin uploading required artifacts to the electronic academic portfolio. Each professor whom assigned an artifact was responsible for rating the artifact and checking to ensure the teacher candidate's artifacts were in the correct place within the portfolio framework.

The third step was the first formal evaluation after the Introduction to Education course or the transfer module within his or her first clinical experience. The professor with whom the teacher candidate took the Introduction to Education class from was responsible for rating the artifact using a pre-determined rubric (Appendix D) and checking to make sure the artifacts were in the correct location within the portfolio framework.

The fourth step was to continue uploading required artifacts for each of the education courses. Again, professor who assigned artifacts were responsible for rating the artifact and making sure the artifact was uploaded in the correct place within the portfolio framework.

The fifth step was the final formal evaluation using a predetermined rubric (Appendix E) of electronic academic portfolio before admittance to the professional semester. Two professors rated the electronic academic portfolio and submitted the rubric to the Director of Teacher Placement.

Teacher candidates rated the steps in the process helpful. However, frustrations arose when professors did not allow sufficient time for artifacts to be graded and returned to the teacher candidate before the artifact needed to be uploaded to the electronic academic portfolio.

The teacher candidates in this study did not demonstrate a clear understanding of the overall purpose of the electronic academic portfolio thus making the creation of the electronic academic portfolio frustrating for some of the teacher candidates. When teacher candidates were asked to described the purpose of the electronic academic portfolio the reasons were varied.

Table 5.1

Teacher candidate's definition of an academic portfolio

Teacher Candidate	Definition
Christine	An academic portfolio's purpose is to keep a record of professional growth for the student and administration
Zach	It is to really make me stress! No, it is to help us organize all that we have accomplished while getting our degree
Tristen	I've been told the purpose of the portfolio is to help us when we are interviewing for a teaching job
Audrey	To keep track of your growth through school and then to give employers something to look at.
Maria	To aid me in my future of educating and to allow my future employers to see my success in college.
Raven	I believe that the purpose for an academic portfolio is to show off the best of the work that the person has compiled over the years.
Lori	It is a way to organize information regarding your teaching experience at the institution and to prepare you for your career.
Adam	I think that the purpose of an academic portfolio is to show off your skills and accomplishments throughout your academic career.
Amy	I think the purpose is to have a technological way for future employer's to view your work.
Shelly	I believe the purpose of an academic portfolio is to keep a record of things that I have accomplished that can be used as a resource for future employers, so that they can get a fuller perspective on my capabilities. It is also useful for me to see how I have progressed in my education experience.
Brenda	To be able to show what you are able to do. Showing what you learned at the college helps the school know what you can do.

The researcher found that when asking teacher candidates outright if they perceived value in creating the electronic academic portfolio the response would be no. However, during the individual interviews the teacher candidates were asked a variety of questions to determine if value was perceived repeatedly the responses gave a clear indication that teacher candidates did perceive growth over time.

One more finding was the lack of understanding on the part of the teacher candidates about reflection as a professional tool. Teacher candidates believed reflection to just be an additional step during the assignment of the artifact. The connection of using reflection as a professional tool to help with growth was not clear. The electronic academic portfolio framework provides a place for an introduction or description of the artifact and a place for reflection. One out of eleven teacher candidates provided introductions and descriptions of the artifacts as well as reflections for each artifact.

What value did teacher candidates assign to each of the steps in the process of the creating an electronic academic portfolio?

Teacher candidates felt strongly about receiving formal instruction during the Introduction to Education course or during the transfer module. Those teacher candidates taking the Introduction to Education course from the institution felt less frustrated with the process of creating the electronic academic portfolio. Teacher candidates who took the transfer module felt he or she had to learn how to use Folio-Live to create the electronic academic portfolio on his or her own with little help or encouragement. One of the teacher candidates even enrolled in the Introduction to Education course at the institution when she had already taken a similar course from another institution.

Teacher candidates became frustrated when professors were unable to assist and answer questions concerning Folio-Live (McGraw Hill, 2002). Teacher candidates also wanted ample time to revise artifacts after assessment and before uploading the artifact to the electronic academic portfolio. Several teacher candidates

voiced frustration with professors waiting until the end of the semester to return artifacts that needed to be uploaded to the electronic academic portfolio.

Some of the teacher candidates recommended not waiting until the end of the semester to upload items. Teacher candidates felt it was very important to plan ahead and get artifacts ready to upload to the electronic academic portfolio early in the semester. Waiting until the end of the semester causes extra and unneeded stress for instance an overloaded computer server when everyone is trying to upload at the same time.

Teacher candidates were also frustrated when professors would not view his or her electronic academic portfolio. Professors would have teacher candidate print off the electronic academic portfolio with required artifacts highlighted for class. Teacher candidates believed strongly about professors actually viewing and checking the electronic academic portfolio at the end of each semester.

Seven of the eleven teacher candidates felt like they should self-select artifacts to be included into the electronic academic portfolio rather than having professors require the selection of artifacts. However, only three of the eleven teacher candidates actually uploaded additional self-selected artifacts. Of the three teacher candidates that believed in self-selection of artifacts two of the teacher candidates wanted a combination of professor selected and self-selected artifacts. Table 5.2 illustrates the perceptions of teacher candidate's view on self-selection of artifacts.

Table 5.2
Self-Selected Artifacts

Teacher Candidate	Desire Self-Selected Artifacts	Uploaded Self-Selected Artifacts
Christine	+	
Zach	+	
Tristen	+	
Audrey		
Maria	+	
Raven		
Lori	+	
Adam	+	+
Amy	+	+
Shelly		
Brenda	+	+

To what extent do teacher candidates demonstrate pride, organization and technology skills in his or her electronic academic portfolio?

Teacher candidates felt strong about making sure artifacts were ready for others to view. When the researcher asked to examine the electronic academic portfolio the teacher candidates did not like viewing artifacts that were uploaded early in the process of creating his or her portfolio. The philosophy was one artifact that teacher candidates wanted to change.

One teacher candidate suggested that the introduction and reflection piece should always be filled out for each artifact as completely as possible and for all artifacts uploaded to the electronic academic portfolio. The introduction and reflection should be added at the same time of uploading artifacts.

Other teacher candidates recommended proofreading, proofreading, proofreading, and then having someone else proofread and make sure you complete all assignments as if they will be viewed by a future employer. Setting high standards is important for the teacher candidates.

Organization was the other suggestion given by several teacher candidates. Making sure everything is well organized and keeping track of everything completed at the institution. It is important to have just one place to store all assignments.

Implications for Teacher Preparation

Findings of this study suggest continued instruction on how to best and fully use the commercial program, Folio-Live (McGraw Hill 2002). Continued instruction on the creation of the electronic academic portfolios is also necessary. Not only should Folio-Live (McGraw Hill 2002) be introduced in the Introduction to Education course and through the transfer module but instruction should repeat in other education courses as well as opportunities to provide additional tutoring.

Findings suggest further instruction in the purpose of the electronic academic portfolio is also essential. Teacher candidates need to be aware that the University Professional Knowledge Base (Appendix B) is connected to the electronic academic portfolio and the artifacts selected demonstrate the objectives have been met. The University Professional Knowledge Base (Appendix B) is introduced in the Introduction to Education course and is referred to in future course syllabi. Teacher candidates revealed during interviews a lack of relationship between the University Professional Knowledge Base (Appendix B) the professor-selected artifacts and the electronic academic portfolio framework.

The researcher believes that teacher candidates struggle with the connection of the electronic academic portfolio to the University Professional Knowledge Base (Appendix B) occurs because of the lack of teacher candidate selected artifacts. As it stands now the artifacts in the electronic portfolio are mostly professor selected

artifact. Teacher candidates are not required to self-select to upload to the electronic academic portfolio. Teacher candidates who do choose to self-select artifacts are able to justify why the artifact can be linked to the University Professional Knowledge Base (Appendix B).

A second reason for the lack of connection is that reflection does not play a major role in the electronic academic portfolio. Teacher candidates are not required to add a reflection piece. If the reflection piece were a part of the electronic academic portfolio it is the belief of the researcher that teacher candidates would be able to draw a stronger connection to the University Professional Knowledge Base (Appendix B).

The researcher found further instruction is also needed to provide teacher candidates with the understanding of the relevance of reflection as a professional tool for growth. Reflection as a tool can be used while teacher candidates are in the teacher preparation program as well as when they enter the professional field. Through reflection teacher candidates are able to discern progress in professional growth.

Academic portfolios are a tool used in education to show growth over time and teacher candidates in this study were able to demonstrate the ability to recognize growth. The question remains for teacher preparation programs to determine if the implementation and creation of the electronic academic portfolio is successful. In order for teacher preparation programs to determine success, the electronic academic portfolio needs to be matched up with beginning student teaching evaluations and/or

scores on the content test given during the professional semester as well as a follow-up study conducted after one year of teaching in the classroom.

The researcher also documented the importance of self-selected artifacts by teacher candidates. The teacher candidates who self-selected artifacts were more likely to find to value in the creation of the electronic academic portfolio. Seven of the eleven teacher candidates that participated in the study wanted guidance at the beginning of the creation of the electronic academic portfolio and then wanted to be able to self-select artifacts to be included. With continued use of the electronic academic portfolio in teacher preparation programs the researcher recommends self-selected artifacts with reflections included that justifies how the artifact meets the standards within the framework. By asking teacher candidates to justify the selection of the artifact he or she will be able to make stronger connections to the University Professional Knowledge Base (Appendix B).

Conclusions

Based on the results of this study several conclusions were drawn.

1. Teacher candidates found value in the domain of professional responsibilities in creating the electronic academic portfolio. Many of the value statements given from teacher candidates could have been coded in a positive or negative manner.
2. Teacher candidate desire additional technical help with Folio-live. Teacher candidates voiced frustration with the lack of continued instruction throughout the teacher preparation program.

3. More instruction of the purpose of the electronic academic portfolio is necessary. Teacher candidates had difficulty understanding that the electronic academic portfolio was not something to share with future employers. The electronic academic portfolio is a document to demonstrate growth over time. The professional portfolio is created during the professional semester and is separate from the electronic academic portfolio.
4. Teacher candidates need a greater connection between knowledge, content and practice is indicated through the interviews. Teacher candidates were not making connections between knowledge, content, from the classroom, the artifacts required for the electronic academic portfolio and practice in the field.
5. More instruction and modeling of reflection is needed in order for teacher candidates to understand reflection is a tool for professional growth. Reflection will also enable teacher candidates to make a stronger connection to the artifacts and the University Professional Knowledge Base (Appendix B).

Recommendations for Further Research

Based on the data gathered and analyzed for this study, suggestions for further research may be made. This study supplied information about perceptions of teacher candidate's on the value of creating an electronic academic portfolio.

Replication of this study is recommended by the research with other populations from other institutions implementing electronic academic portfolio in

teacher education preparation programs. This would allow for the possibility of increased diversity of participants in the study.

It is also recommended to replicate the study with secondary education participants. The institution in which this study was conducted recently dropped the electronic academic portfolio requirement.

Replication of this study is recommended with teacher candidates creating an electronic academic portfolio without a commercial program or with a different commercial program.

A longitudinal study is recommended beginning with teacher candidates during the initial introduction to the electronic academic portfolio and continues through completion and or graduation from the program.

A replication of the study is recommended with teacher candidates during the professional semester creating a professional portfolio rather than an academic portfolio. How did the process of creating an electronic academic portfolio effect how the teacher candidate creates the electronic professional portfolio?

Replication of the study with in-service teachers to determine if the process of creating an electronic academic portfolio has an effect on the way teacher candidates teach once in the classroom. The researcher would also like to replicate the study with the same teacher candidates after they enter the professional field to determine if time away from the creation of the electronic academic portfolio will allow him or her to see benefits after the fact.

The researcher would also like to replicate of the study addressing value statements from teacher candidates in a positive form and a negative form. The

researcher assumed at the beginning of this study that all value statements would come from the positive. However, once into the study the researcher discovered that not all value statements reflected a positive connotation.

Summary

Academic portfolios are used by teacher candidates as a visual growth process in learning how to become a teacher. The academic portfolio can be compared to a child's baby book where parents mark important events in a child's life. Such as a babies first word, first step, first trip. The academic portfolio holds the teacher candidates first philosophy of education written at the beginning of the education program, lesson plans from the beginning of the program until entering into the professional semester.

The results of this study imply there is value assigned to the creation of the electronic academic portfolio in teacher education with teacher candidates. Teacher candidates did not always find positive value in the creation of the electronic academic portfolio. Some teacher candidates found the creation of the electronic academic portfolio to be beneficial and worthwhile to them in a positive manner while others, such as, Tristen found the process less valuable.

While the researcher noted frustration on the part of the teacher candidates with the process and the use of Folio-Live (McGraw Hill, 2002) additional or provisional help could be provided to help teacher candidates feel more confident. There were teacher candidates who participated in the study that believed not all professors were on board with the creation and importance of the electronic academic portfolio.

When considering the value statements from the teacher candidates the researcher discovered that negative perceptions of value were not necessarily adverse to the creation of the electronic academic portfolio. Adam believed the lack of interest on the part of professors during the process of creating the electronic academic portfolio was discouraging and felt like there was really no point to complete the project. However, in the end, when he reviewed the electronic academic portfolio he found he was able to see growth over time.

Going through the process of creating an electronic academic portfolio teacher candidates were not always able to experience positive perceptions of value. Teacher candidates would voice frustration to the researcher. However, in the end when the electronic academic portfolios were reviewed with the researcher teacher candidates were able to observe growth over time and found positive value in the end product.

The conclusion reached from the analysis of the data gathered is that teacher candidates did perceive value in creating the electronic academic portfolio. The researcher found that overall, teacher candidate attitudes did not appear to come in the form of a strong negative or a strong positive manner. The perception of value gave varied beliefs and the researcher was unable to define success in regard to the creation of the electronic academic portfolio. Given the ambiguous nature of the comments to the researcher by teacher candidates during the individual interviews it is vital to obtain an additional measure to determine success of implementation of the electronic academic portfolio.

Therefore, the continued use of electronic academic portfolios in this teacher preparation program should only go forward if there can be an additional way access

value other than merely referring to teacher attitudes and perceptions to measure the effectiveness.

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Appendix A

KSDE Standards for Professional Education

Standard #1: The educator demonstrates the ability to use central concepts, tools of inquiry, and structures of each disciplines/he teaches and can create opportunities that make these aspects of subject matter meaningful for all students.

Standard #2: The educator demonstrates an understanding of how individuals learn and develop intellectually, socially, and personally and provides learning opportunities that support this development.

Standard #3: The educator demonstrates the ability to provide different approaches to learning and creates instructional opportunities that are equitable, that are based on developmental levels, and that are adapted to diverse learners, including those with exceptionalities.

Standard #4: The educator understands and uses a variety of appropriate instructional strategies to develop various kinds of students' learning including critical thinking, problem solving, and reading.

Standard #5: The educator uses an understanding of individual and group motivation and behavior to create a learning environment that encourages positive social interaction, active engagement in learning, and self-motivation.

Standard #6: The educator uses a variety of effective verbal and non-verbal communication techniques to foster active inquiry, collaboration, and supportive interaction in the classroom.

Standard #7: The educator plans effective instruction based upon the knowledge of all students, community, subject matter, curriculum outcomes, and current methods of teaching reading.

Standard #8: The educator understands and uses formal and informal assessment strategies to evaluate and ensure continual intellectual, social and other aspects of personal development of all learners.

Standard #9 The educator is a reflective practitioner who continually evaluates the effects of his or her choices and actions on others (students, parents, and other professionals in the learning community), actively seeks out opportunities to grow professionally, and participates in the school improvement process (Kansas Quality Performance Accreditation [QPA]).

Standard #10 The educator fosters collegial relationships with school personnel, parents, and agencies in the larger community to support all students' learning and well-being.

Standard #11 The educator demonstrates the ability to integrate across and within content fields to enrich the curriculum, develop reading and thinking skills, and facilitate all students' abilities to understand relationships between subject areas.

Standard #12 The educator understands the role of technology in society and demonstrates skills using instructional tools and technology to gather, analyze, and present information, enhance instructional practices, facilitate professional productivity and communication, and help all students use instructional technology effectively.

Standard #13 The educator is a reflective practitioner who uses an understanding of historical, philosophical, and social foundations of education to guide practices.

Appendix B

University Professional Knowledge Base

Professional Characteristics

The effective teacher:

1. Is dependable and punctual
2. Maintains a consistently pleasant, positive, and professional demeanor.
3. Believes that all students can learn and that, as a teacher, he/she can make a significant contribution to their learning.
4. Understands and respects a diverse student/parent population and has a goal to help all children learn respect for the traditions and cultures of others.
5. Promotes a classroom environment, which is characterized as caring, responsive, and supportive to all students.
6. Complies with written laws and policies regarding confidentiality in handling personal information about students, parents and personnel.
7. Knows and complies with school policies and shares in the general responsibilities and duties associated with teaching (e.g., attendance, discipline, hall duty).
8. Attends various student activities to build a caring relationship with students.
9. Is willing to ask for help and advice from and build a collaborative relationship with colleagues to share teaching insights and coordinate learning activities for students.
10. Knows how to establish ongoing two-way communication with parents to support student progress and conduct effective parent-teacher conferences.

11. Communicates fluently using appropriate and grammatically correct oral and written language.
12. Sets goals and directions, which demonstrate the desire for lifelong learning (e.g. in-service, peer collaboration, professional reading).
13. Demonstrates a desire to continually acquire knowledge and skills in emerging educational technologies.
14. Seeks to implement the recommendations from evaluations of his or her personal performance.
15. Participates in self-evaluation and reflection to enhance competence in instructional effectiveness.

Relationship with Students

The effective teacher:

16. Conveys high expectations that all students will succeed and learn.
17. Models cheerful, supportive, enthusiastic behaviors, which convey a caring, equitable attitude towards all students.
18. Develops positive rapport with students by being empathic, firm, fair, and appropriately friendly.
19. Listens carefully to all students then responds in a professional manner.
20. Seeks to stimulate positive work ethics, self-efficacy, and cooperation in all students through daily interactions.
21. Utilizes learning activities and personal role modeling to develop enthusiastic learning attitudes, respect for learning, and positive values in students.

Instructional Planning

The effective teacher:

22. Understands the appropriate scope and sequence of objectives for teaching the curriculum.
23. Develops clear, short and long-term instructional plans, (e.g. lesson plans, units, and/or modules) which include objectives, materials, activities, and evaluation techniques based on the curriculum objectives.
24. Has an up-to-date knowledge of subject matter and attempts to incorporate diverse and practical illustrations, examples, and applications in lesson material and activities.
25. Selects materials and activities consistent with the objectives of the lesson and the students' prerequisite skills, attention span, and learning styles.
26. Has knowledge of and implements assorted instructional techniques and technology to provide for instructional variation and integration with other disciplines.
27. Reflects an understanding of learning theory and knowledge of human development in planning for developmentally appropriate instruction.
28. Structures lesson planning to allow for individualization, reteaching, and alternative assessment so all students could meet the objectives.

Instruction

The effective teacher:

29. Conducts class with poise, confidence, and enthusiasm

30. Presents lessons in a clear, logical, and sequential manner.
31. Insures that lesson materials and information are professionally displayed and accessible to all students.
32. Communicates clearly to all students the objective and purpose of each lesson
33. Communicates clearly to all students the objective and purpose of each lesson
34. Reviews or provides an anticipatory set in an effort to provide lesson continuity and/or to fan the interest of the student for each lesson.
35. Makes the lessons relevant and meaningful for all students by relating it to real world situations.
36. Utilizes various instructional strategies appropriate for the objectives of the lesson.
37. Uses suitable teaching strategies to accommodate learning styles.
38. Incorporates individualized strategies for students with special needs (e.g., English as a second language, learning disabled, behavioral disordered).
39. Uses available educational technologies and teaching aids to enhance instruction (e.g. computers, multimedia, the Internet)
40. Encourages participation from all students through effective questioning strategies (e.g. equal distribution, level variation, adequate wait time, probing and clue giving, and appropriate correctives and feedback.)
41. Responds to student questions in a concerned and effective manner.
42. Provides opportunities for all students to successfully apply or practice knowledge and skills learned.

43. Facilitates instructional strategies, which provide opportunities to work individually and collaboratively in groups.
44. Conducts lessons at an appropriate pace so all students have the opportunity to learn intended objectives.
45. Provides focus on important points and checks for understanding.
46. Accomplishes smooth and orderly transitions between parts of the lesson.
47. Gives clear directions.
48. Individualizes assignments that all students can complete on their own with a high success rate.
49. Effectively achieves closure to each lesson and/or class period.
50. Effectively achieves closure to each lesson and/or class period.
51. Demonstrates flexibility in teaching techniques, as the situation requires.
52. Encourages and facilitates opportunities for students to think creatively and critically, to solve problems, and to develop the skills needed to live, learn and work in a global society.
53. Teaches tolerance by example and by design, striving to develop a classroom atmosphere, which recognizes the value of all people, regardless of their uniqueness.

Classroom Management

The effective teacher:

54. Believes in and communicates a well-defined classroom management system.

55. Organizes and maintains the physical environment of the classroom in a functional, pleasant, and orderly manner conducive to student learning and safety.
56. Establishes, teaches, and reinforces classroom expectations, rules, routines, and procedures fairly and with an awareness of cultural attitudes and mores.
57. Monitors and keeps track of all student behavior and activities in the classroom at all times.
58. Displays consistency in dealing with behavior in the least disruptive manner, utilizing appropriate and negative consequences.
59. Handles multiple tasks, intrusions, and distractions while maintaining momentum and smoothness in the lesson.
60. Understands how to handle unexpected classroom incidents and emergencies appropriately.
61. Analyzes classroom problems and resourcefully seeks strategies to help develop a learning environment which encourages self-management, social interaction, high time-on-task, and active engagement.

Evaluation

The effective teacher:

62. Develops and communicates to students and parents a fair evaluation system which respects the legal rights of all involved.
63. Maintains clear and reasonable work standards and due dates.

64. Consults a variety of sources (e.g., student records, counselors, resource specialists, parent conferences, test results, and other diagnostic tools) to determine the learning needs and capabilities of individual students.
65. Routinely uses a number of different techniques to assess the students' understanding of material as it is taught.
66. Makes changes in instruction based on feedback from multiple classroom assessment sources.
67. Uses multiple methods of assessing and evaluating student performance.
68. Gives timely and specific oral and/or written feedback on all assignments and provides corrective action so all students can succeed.
69. Has knowledge of the referral process and can use specialized services as student needs arise.

Appendix C

INTASC Standards

1. The teacher understands the central concepts, tools of inquiry, and structure of the discipline he or she teaches and can create learning experiences that make these aspects of subject matter meaningful to the students.
2. The teacher understands how children learn and develop, and can provide learning opportunities that support a child's intellectual, social, and personal development.
3. The teacher understands how students differ in their approaches to learning and creates instructional opportunities that are adapted to diverse learners.
4. The teacher uses a variety of instructional strategies to encourage student development of critical thinking, problem-solving, and performance skills.
5. The teacher uses an understanding of individual and group motivation and behavior to create a learning environment that encourages social interaction, active engagement in learning, and self-motivation.
6. The teacher uses knowledge of effective verbal, nonverbal, and media communication techniques to foster active inquiry, collaboration, and supportive interaction in the classroom.
7. The teacher plans based upon knowledge of subject matter, students, the community, and curriculum goals.

8. The teacher understands and uses formal and informal assessment strategies to evaluate and ensure the continuous intellectual, social, and physical development of the learner.
9. The teacher is a reflective practitioner who continually evaluates the effects of his or her choices and actions on others (students, parents, and other professionals in the learning community_ and who actively seeks out opportunities to grow professionally.
10. The teacher fosters relationships with school colleagues, parents, and agencies in the larger community to support students' learning and well-being.

Appendix D

Academic Portfolio Formative

Rating Sheet

Teacher Candidate's Name: _____

Date: _____

Evaluator's Name: _____

Overall Portfolio Rating: _____

The Academic Portfolio Formative Rubric provides the basis for a formative assessment on the artifacts developed by teacher candidates. It assesses the candidate's growth and development on Teacher Education Effective Knowledge Base as evidenced through the artifacts developed during course training. Its ratings are used to evaluate, in part, the teacher candidate's ability to successfully enter the final phase of course work prior to the professional semester. To meet the requirements, teacher candidates are expected to demonstrate at least a Rating of 3, Competence Shown in the area of Professional Characteristics.

Artifact Requirements

CURIN 262 – Explorations in Education

_____ Philosophy of Education – Professional Characteristics, Philosophy

_____ Autobiography – Professional characteristics, Personal History/ Resume

_____ Code of Ethics – Professional Characteristics, Code of Ethics

_____ Long and Short Term Professional Goals – Professional Characteristics, Other

CURIN 262 – Pre-Professional Lab I

_____ Professional Characteristics, Professional Development in Schools – Reflection

Summary of Indicator Domain Ratings

_____ **Professional Characteristics:** The teacher candidate demonstrated specific attitudes and behaviors which illustrated a commitment to a dependable and professional demeanor, an underlying belief system that all students can learn, specific efforts that fostered collaborative/caring relationships, and attitudes which fostered life-long learning. (Indicators 1 – 15)

Rating: 1 **Needs Development: Indicator Not Met; Unsatisfactory Documentation; and/or No Documentation**

The artifacts did not provide sufficient documentation showing the candidate has the skills, knowledge or attitudes that denote a strong knowledge base, an understanding of learning theory, an approach to outcomes-based instructional planning, an integrated lesson design, and a variety of instructional strategies which provide opportunities for all students to learn.

Rating: 2 **Still Developing Competence: Basic Awareness Shown; Indicator Not Met; and/or Needs Further Documentation,**

The artifacts provided weak documentation showing the candidate had a simple awareness of the knowledge, modest or inconsistent development of the skills, and/or little acceptance of the attitudes that denote a strong knowledge base, an understanding of learning theory, an approach to outcomes-based instructional planning, an integrated lesson design, and a variety of instructional strategies which provide opportunities for all students to learn.

Rating: 3 **Competence Shown: Indicator Adequately Met; Proficient Documentation Showing Application; and/or Demonstration Through Professional Experience**

The artifacts provided adequate examples showing the candidate applied the knowledge, proficiently performed the skills, and exhibited the attitudes that denote a strong knowledge base, an understanding of learning theory, an approach to outcomes-based instructional planning, an integrated lesson design, and a variety of instructional strategies which provide opportunities for all students to learn.

Rating: 4 **Effective Competence Shown: Indicator More Than Sufficiently Met Showing Effectiveness; Multiple Documentations Showing Successful Application; and/or Integration into Professional Life**

The artifacts provided excellent multiple examples showing the candidate effectively applied the knowledge, integrated the skills to produce positive results, and demonstrated a personal acceptance to the attitudes that denote a strong knowledge base, an understanding of learning theory, an approach to outcomes-based instructional planning, an integrated lesson design, and a variety of instructional strategies which provide opportunities for all students to learn.

Rating: 5 **Distinguished Competence Shown: Indicator Met with Distinction; Multiple Creative Documentations Showing Imaginative Innovation; and/or Artistic Transfer to Professional Life**

The artifacts were of such merit that they showed an artistic distinction. The artifacts provided multiple examples showing the candidate uniquely personalized the principles, creatively internalized the skills, and possessed a passion to the attitudes that denote a strong knowledge base, an understanding of learning theory, an approach to outcomes-based instructional planning, an integrated lesson design, and a variety of instructional strategies which provide opportunities for all students to learn.

Appendix E

Academic Portfolio Summative

Rating Sheet

Teacher Candidate's Name: _____ Date: _____

Evaluator's Name: _____ Overall Portfolio Rating: _____

The Academic Portfolio Summative Rubric provides the basis for a summative assessment on the reflections developed by teacher candidates. It assesses the candidate's growth and development on Teacher Education Effective Knowledge Base as seen through the artifacts developed during course training. Its ratings are used to judge, in part, the teacher candidate's ability to successfully enter the professional semester. To meet the requirements, teacher candidates are expected to demonstrate in all six areas at least a Rating 3: Competence.

Professional Characteristics: The teacher candidate demonstrated specific attitudes and behaviors which illustrated a commitment to a dependable and professional demeanor, an underlying belief system that all students can learn, specific efforts that fostered collaborative/caring relationships, and attitudes which fostered life-long learning. (Indicators 1 – 15)

CURIN 262 – Explorations in Education

- _____ Philosophy of Education – Professional Characteristics, Philosophy
- _____ Autobiography – Professional characteristics, Personal History/ Resume
- _____ Code of Ethics – Professional Characteristics, Code of Ethics
- _____ Long and Short Term Professional Goals – Professional Characteristics, Other

CURIN 262 – Pre-Professional Lab I

- _____ Professional Characteristics, Professional Development in Schools – Reflection

CURIN 252 – Children's Literature

- _____ Professional Characteristics, Reflections – Self-Reflection Papers

CURIN 307 – Pre-Professional Lab II

- _____ Professional Characteristics. Personal History – Letter to the cooperating Teacher
- _____ Professional Characteristics, Professional Dev. In schools – Significance of Pre-Lab II

_____ REFLECTION

Rating Given: _____

Rating: 1 **Needs Development: Indicator Not Met; Unsatisfactory Documentation; and/or No Documentation**

The artifacts did not provide sufficient documentation showing the candidate has the skills, knowledge or attitudes that denote a strong knowledge base, an understanding of learning theory, an approach to outcomes-based instructional planning, an integrated lesson design, and a variety of instructional strategies which provide opportunities for all students to learn.

Rating: 2 **Still Developing Competence: Basic Awareness Shown; Indicator Not Met; and/or Needs Further Documentation,**

The artifacts provided weak documentation showing the candidate had a simple awareness of the knowledge, modest or inconsistent development of the skills, and/or little acceptance of the attitudes that denote a strong knowledge base, an understanding of learning theory, an approach to outcomes-based instructional planning, an integrated lesson design, and a variety of instructional strategies which provide opportunities for all students to learn.

Rating: 3 **Competence Shown: *Indicator Adequately Met; Proficient Documentation Showing Application; and/or Demonstration Through Professional Experience***

The artifacts provided adequate examples showing the candidate applied the knowledge, proficiently performed the skills, and exhibited the attitudes that denote a strong knowledge base, an understanding of learning theory, an approach to outcomes-based instructional planning, an integrated lesson design, and a variety of instructional strategies which provide opportunities for all students to learn.

Rating: 4 **Effective Competence Shown: *Indicator More Than Sufficiently Met Showing Effectiveness; Multiple Documentations Showing Successful Application; and/or Integration into Professional Life***

The artifacts provided excellent multiple examples showing the candidate effectively applied the knowledge, integrated the skills to produce positive results, and demonstrated a personal acceptance to the attitudes that denote a strong knowledge base, an understanding of learning theory, an approach to outcomes-based instructional planning, an integrated lesson design, and a variety of instructional strategies which provide opportunities for all students to learn.

Rating: 5 **Distinguished Competence Shown: *Indicator Met with Distinction; Multiple Creative Documentations Showing Imaginative Innovation; and/or Artistic Transfer to Professional Life***

The artifacts were of such merit that they showed an artistic distinction. The artifacts provided multiple examples showing the candidate uniquely personalized the principles, creatively internalized the skills, and possessed a passion to the attitudes that denote a strong knowledge base, an understanding of learning theory, an approach to outcomes-based instructional planning, an integrated lesson design, and a variety of instructional strategies which provide opportunities for all students to learn.

Relationships with Students: The teacher candidate demonstrated specific attitudes and behaviors which portrayed a caring relationship with students, a positive rapport developed through enthusiasm, high student expectations, empathy, and promotion of learning extending beyond the classroom. (Indicators 16-21)

CURIN 252 – Children’s Literature

____ Relationships with Students, Extra Curricular Activities – Literature Festival

CURIN 361 – Elementary School Mathematics

____ Relationships with Students, Diversity Experience – Family Math Night

CURIN 551 – Diversity in the Classroom

____ Relationships with Students, Diversity Experience - Focus on Culture

____ REFLECTION

Rating Given: _____

Rating: 1 Needs Development: *Indicator Not Met; Unsatisfactory Documentation; and/or No Documentation*

The artifacts did not provide sufficient documentation showing the candidate has the skills, knowledge or attitudes that portray a caring relationship with students, a positive rapport developed through enthusiasm, high student expectation, empathy, and promotion of learning extending beyond the classroom.

Rating: 2 Still Developing Competence: *Basic Awareness Shown; Indicator Not Met; and/or Needs Further Documentation,*

The artifacts provided weak documentation showing the candidate had a simple awareness of the knowledge, modest or inconsistent development of the skills, and/or little acceptance of the attitudes that portray a caring relationship with students, a positive rapport developed through enthusiasm, high student expectation, empathy, and promotion of learning extending beyond the classroom.

Rating: 3 Competence Shown: *Indicator Adequately Met; Proficient Documentation Showing Application; and/or Demonstration Through Professional Experience*

The artifacts provided adequate examples showing the candidate applied the knowledge, proficiently performed the skills, and exhibited the attitudes that portray a caring relationship with students, a positive rapport developed through enthusiasm, high student expectation, empathy, and promotion of learning extending beyond the classroom.

Rating: 4 Effective Competence Shown: *Indicator More Than Sufficiently Met Showing Effectiveness; Multiple Documentations Showing Successful Application; and/or Integration into Professional Life*

The artifacts provided excellent multiple examples showing the candidate effectively applied the knowledge, integrated the skills to produce positive results, and demonstrated a personal acceptance to the attitudes that portray a caring relationship with students, a positive rapport developed through enthusiasm, high student expectation, empathy, and promotion of learning extending beyond the classroom.

Rating: 5 Distinguished Competence Shown: *Indicator Met with Distinction; Multiple Creative Documentations Showing Imaginative Innovation; and/or Artistic Transfer to Professional Life*

The artifacts were of such merit that they showed an artistic distinction. The artifacts provided multiple examples showing the candidate uniquely personalized the principles, creatively internalized the skills, and possessed a passion to the attitudes that portray a caring relationship with students, a positive rapport developed through enthusiasm, high student expectation, empathy, and promotion of learning extending beyond the classroom.

Instructional Planning: The teacher candidate demonstrated specific attitudes and behaviors that denoted a strong knowledge base, an understanding of learning theory, an approach to outcomes-based instructional planning, an integrated lesson design, and a variety of instructional strategies which provided opportunities for all students to learn. (Indicators 22-28)

CURIN 252 – Children’s Literature
____ Instructional Plan, Other – Bulletin Board
____ Instructional Plan, Other – Book Genre Assignments

CURIN 307 – Pre-Professional Lab II
____ Instructional Plan, Reflections – Lesson Reflections

CURIN 320 – Early Childhood Foundations and Curriculum
____ Instructional Plan, Learning Center Plan - Math Learning Center Plan or Science Learning Center Plan
____ Instructional Plan, Unit Plan- Social Studies Plan

CURIN 330 – Technology for the Classroom
____ Instructional Plan, Teacher Evaluation of Resources - Web Site Evaluation

CURIN 361 – Elementary School Mathematics
____ Instructional Plan, Lesson Plan – Equity Lesson Plan

CURIN 362 – Elementary School Science
____ Instructional Plan, Lesson Plan – Literature Based Lesson Plan

CURIN 363 – Elementary School Social Studies
____ Instructional Plan, Unit Plan – S.S. Thematic Unit

CURIN 366 – Primary Reading and Language Arts
____ Instructional Plan, Lesson Plan – LEA Lesson Plan

CURIN 566 – Reading and Language Arts Practicum
____ Instructional Plan, Lesson Plan – Primary Lesson
____ Instructional Plan, Lesson Plan – Intermediate Lesson

____ REFLECTION

Rating Given: _____

Rating: 1 Needs Development: Indicator Not Met; Unsatisfactory Documentation; and/or No Documentation

The artifacts did not provide sufficient documentation showing the candidate has the skills, knowledge or attitudes that denote a strong knowledge base, an understanding of learning theory, an approach to outcomes-based instructional planning, an integrated lesson design, and a variety of instructional strategies which provide opportunities for all students to learn.

Rating: 2 Still Developing Competence: Basic Awareness Shown; Indicator Not Met; and/or Needs Further Documentation,

The artifacts provided weak documentation showing the candidate had a simple awareness of the knowledge, modest or inconsistent development of the skills, and/or little acceptance of the attitudes that denote a strong knowledge base, an understanding of learning theory, an approach to outcomes-based instructional planning, an integrated lesson design, and a variety of instructional strategies which provide opportunities for all students to learn.

Rating: 3 **Competence Shown: *Indicator Adequately Met; Proficient Documentation Showing Application; and/or Demonstration Through Professional Experience***

The artifacts provided adequate examples showing the candidate applied the knowledge, proficiently performed the skills, and exhibited the attitudes that denote a strong knowledge base, an understanding of learning theory, an approach to outcomes-based instructional planning, an integrated lesson design, and a variety of instructional strategies which provide opportunities for all students to learn.

Rating: 4 **Effective Competence Shown: *Indicator More Than Sufficiently Met Showing Effectiveness; Multiple Documentations Showing Successful Application; and/or Integration into Professional Life***

The artifacts provided excellent multiple examples showing the candidate effectively applied the knowledge, integrated the skills to produce positive results, and demonstrated a personal acceptance to the attitudes that denote a strong knowledge base, an understanding of learning theory, an approach to outcomes-based instructional planning, an integrated lesson design, and a variety of instructional strategies which provide opportunities for all students to learn.

Rating: 5 **Distinguished Competence Shown: *Indicator Met with Distinction; Multiple Creative Documentations Showing Imaginative Innovation; and/or Artistic Transfer to Professional Life***

The artifacts were of such merit that they showed an artistic distinction. The artifacts provided multiple examples showing the candidate uniquely personalized the principles, creatively internalized the skills, and possessed a passion to the attitudes that denote a strong knowledge base, an understanding of learning theory, an approach to outcomes-based instructional planning, an integrated lesson design, and a variety of instructional strategies which provide opportunities for all students to learn.

Instruction: The teacher candidate demonstrated specific attitudes and behaviors that provide active student centered instruction characterized by clarity, variety, and flexibility. (Indicators 29-52)

CURIN 330 – Technology for the Classroom
_____ Instruction, Technology Integration – Multi-media Presentation

CURIN 363 – Elementary School Social Studies
_____ Instruction, Reflection – Economics Reflection

_____ REFLECTION

Rating Given: _____

Rating: 1 Needs Development: *Indicator Not Met; Unsatisfactory Documentation; and/or No Documentation*

The artifacts did not provide sufficient documentation showing the candidate has the skills, knowledge or attitudes to provide active student-centered instruction characterized by clarity, variety, and flexibility.

Rating: 2 Still Developing Competence: *Basic Awareness Shown; Indicator Not Met; and/or Needs Further Documentation,*

The artifacts provided weak documentation showing the candidate had a simple awareness of the knowledge, modest or inconsistent development of the skills, and/or little acceptance of the attitudes that provide active student-centered instruction characterized by clarity, variety, and flexibility.

Rating: 3 Competence Shown: *Indicator Adequately Met; Proficient Documentation Showing Application; and/or Demonstration Through Professional Experience*

The artifacts provided adequate examples showing the candidate applied the knowledge, proficiently performed the skills, and exhibited the attitudes that provide active student-centered instruction characterized by clarity, variety, and flexibility.

Rating: 4 Effective Competence Shown: *Indicator More Than Sufficiently Met Showing Effectiveness; Multiple Documentations Showing Successful Application; and/or Integration into Professional Life*

The artifacts provided excellent multiple examples showing the candidate effectively applied the knowledge, integrated the skills to produce positive results, and demonstrated a personal acceptance to the attitudes that provide active student-centered instruction characterized by clarity, variety, and flexibility.

Rating: 5 Distinguished Competence Shown: *Indicator Met with Distinction; Multiple Creative Documentations Showing Imaginative Innovation; and/or Artistic Transfer to Professional Life*

The artifacts were of such merit that they showed an artistic distinction. The artifacts provided multiple examples showing the candidate uniquely personalized the principles, creatively internalized the skills, and possessed a passion to the attitudes that provide active student-centered instruction characterized by clarity, variety, and flexibility.

Classroom Management: The teacher candidate demonstrated specific attitudes and behaviors that promoted an orderly, safe classroom environment conducive to learning by providing clear rules and procedures which were taught, monitored and consistently reinforced. (Indicators 53-60)

CURIN 368 – Effective Classroom Management
_____ Management, Management Plan – Classroom Management Plan

_____ REFLECTION

Rating Given: _____

Rating: 1 Needs Development: *Indicator Not Met; Unsatisfactory Documentation; and/or No Documentation*

The artifacts did not provide sufficient documentation showing the candidate has the skills, knowledge or attitudes to promote an orderly, safe classroom environment conducive to learning by providing clear rules and procedures which are taught, monitored and consistently reinforced.

Rating: 2 Still Developing Competence: *Basic Awareness Shown; Indicator Not Met; and/or Needs Further Documentation,*

The artifacts provided weak documentation showing the candidate had a simple awareness of the knowledge, modest or inconsistent development of the skills, and/or little acceptance of the attitudes that promote an orderly, safe classroom environment conducive to learning by providing clear rules and procedures which are taught, monitored and consistently reinforced.

Rating: 3 Competence Shown: *Indicator Adequately Met; Proficient Documentation Showing Application; and/or Demonstration Through Professional Experience*

The artifacts provided adequate examples showing the candidate applied the knowledge, proficiently performed the skills, and exhibited the attitudes that promote an orderly, safe classroom environment conducive to learning by providing clear rules and procedures which are taught, monitored and consistently reinforced.

Rating: 4 Effective Competence Shown: *Indicator More Than Sufficiently Met Showing Effectiveness; Multiple Documentations Showing Successful Application; and/or Integration into Professional Life*

The artifacts provided excellent multiple examples showing the candidate effectively applied the knowledge, integrated the skills to produce positive results, and demonstrated a personal acceptance to the attitudes that promote an orderly, safe classroom environment conducive to learning by providing clear rules and procedures which are taught, monitored and consistently reinforced.

Rating: 5 Distinguished Competence Shown: *Indicator Met with Distinction; Multiple Creative Documentations Showing Imaginative Innovation; and/or Artistic Transfer to Professional Life*

The artifacts were of such merit that they showed an artistic distinction. The artifacts provided multiple examples showing the candidate uniquely personalized the principles, creatively internalized the skills, and possessed a passion to the attitudes that promote an orderly, safe classroom environment conducive to learning by providing clear rules and procedures which are taught, monitored and consistently reinforced.

Evaluation: The teacher candidate demonstrated specific attitudes and behaviors which established fair expectations, provided for multiple assessment opportunities, monitored progress in a timely fashion, provided feedback through multiple means, and collaborate with others to meet the needs of all students. (Indicators 61-68)

CURIN 362 – Elementary School Science
____ Evaluation, Pre-Post Analysis – Science Lesson

____ REFLECTION

Rating Given: _____

Rating: 1 Needs Development: *Indicator Not Met; Unsatisfactory Documentation; and/or No Documentation*

The artifacts did not provide sufficient documentation showing the candidate has the skills, knowledge or attitudes to establish fair expectations provide for multiple assessment opportunities, monitor progress in a timely fashion, provided feedback through multiple means, and collaborate with others to meet the needs of all students.

Rating: 2 Still Developing Competence: *Basic Awareness Shown; Indicator Not Met; and/or Needs Further Documentation,*

The artifacts provided weak documentation showing the candidate had a simple awareness of the knowledge, modest or inconsistent development of the skills, and/or little acceptance of the attitudes that establish fair expectations, provide for multiple assessment opportunities, monitor progress in a timely fashion, provided feedback through multiple means, and collaborate with others to meet the needs of all students.

Rating: 3 Competence Shown: *Indicator Adequately Met; Proficient Documentation Showing Application; and/or Demonstration Through Professional Experience*

The artifacts provided adequate examples showing the candidate applied the knowledge, proficiently performed the skills, and exhibited the attitudes that establish fair expectations, provide for multiple assessment opportunities, monitor progress in a timely fashion, provided feedback through multiple means, and collaborate with others to meet the needs of all students.

Rating: 4 Effective Competence Shown: *Indicator More Than Sufficiently Met Showing Effectiveness; Multiple Documentations Showing Successful Application; and/or Integration into Professional Life*

The artifacts provided excellent multiple examples showing the candidate effectively applied the knowledge integrated the skills to produce positive results, and demonstrated a personal acceptance to the attitudes that establish fair expectations, provide for multiple assessment opportunities, monitor progress in a timely fashion, provided feedback through multiple means, and collaborate with others to meet the needs of all students.

Rating: 5 Distinguished Competence Shown: *Indicator Met with Distinction; Multiple Creative Documentations Showing Imaginative Innovation; and/or Artistic Transfer to Professional Life*

The artifacts were of such merit that they showed an artistic distinction. The artifacts provided multiple examples showing the candidate uniquely personalized the principles, creatively internalized the skills, and possessed a passion to the attitudes that establish fair expectations, provide for multiple assessment opportunities, monitor progress in a timely fashion, provided feedback through multiple means, and collaborate with others to meet the needs of all students.

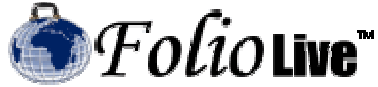
____ Average Overall Rating

10/25/2004

Appendix F

Pilot Study Interview Protocol

Spring '05



Teacher Candidate:

Artifacts Checked

_____ Philosophy of Education (Professional Characteristics)

_____ Diversity Experience (Relationships with Students)

_____ Lesson Plan (Instructional Plan)

_____ Technology Integration (Instruction)

_____ Classroom Management (Management)

How did the electronic portfolio influence the role that you played in your own assessment and evaluation process?

How did the electronic portfolio help you assume more responsibility for you own learning?

How did the electronic portfolio help you experience the relationship between effort and results?

What frustrated you with the electronic portfolio?

Appendix G

Informed Consent to Institutional Review Board & Approval

**KANSAS STATE UNIVERSITY
INFORMED CONSENT TEMPLATE**

PROJECT TITLE: Electronic Academic Portfolios and the Assessment of Teacher Candidates

PRINCIPAL INVESTIGATOR: CO-INVESTIGATOR(S): F. Todd Goodson, Julie Samuels

CONTACT AND PHONE FOR ANY PROBLEMS/QUESTIONS: 620-235-4183

IRB CHAIR CONTACT/PHONE INFORMATION: F. Todd Goodson – 785-532-5898

SPONSOR OF PROJECT: N/A

PURPOSE OF THE RESEARCH: To determine the perceptions of teacher candidates during the electronic academic portfolio process.

PROCEDURES OR METHODS TO BE USED: You will participate in 3 interviews during the 10 week study at a scheduled time and place. You will participate in a pre and post survey.

ALTERNATIVE PROCEDURES OR TREATMENTS, IF ANY, THAT MIGHT BE ADVANTAGEOUS TO SUBJECT:

LENGTH OF STUDY: 10 weeks

RISKS ANTICIPATED: N/A

BENEFITS ANTICIPATED: _____

EXTENT OF CONFIDENTIALITY: The names of all participants will be kept confidential.

IS COMPENSATION OR MEDICAL TREATMENT AVAILABLE IF INJURY OCCURS: N/A

PARENTAL APPROVAL FOR MINORS: N/A

TERMS OF PARTICIPATION: I understand this project is research, and that my participation is completely voluntary. I also understand that if I decide to participate in this study, I may withdraw my consent at any time, and stop participating at any time without explanation, penalty, or loss of benefits, or academic standing to which I may otherwise be entitled.

I verify that my signature below indicates that I have read and understand this consent form, and willingly agree to participate in this study under the terms described, and that my signature acknowledges that I have received a signed and dated copy of this consent form.

(Remember that it is a requirement for the P.I. to maintain a signed and dated copy of the same consent form signed and kept by the participant)

Participant Name: _____

Participant Signature: _____

Date: _____

Witness to Signature: (project staff) _____

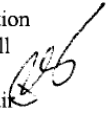
Date: _____



University Research
Compliance Office
203 Fairchild Hall
Lower Mezzanine
Manhattan, KS 66506-1103
785-532-3224
Fax: 785-532-3278
<http://www.ksu.edu/research/comply>

TO: F. Todd Goodson
Secondary Education
349 Bluemont Hall

Proposal Number: 3740

FROM: Rick Scheidt, Chair 
Committee on Research Involving Human Subjects

DATE: January 30, 2006

RE: Proposal Entitled, "Electronic Academic Portfolios and the Assessment of Teacher Candidates"

The Institutional Review Board (IRB) for Kansas State University has reviewed the proposal identified above and has determined that it is exempt from further review.

This exemption applies only to the proposal currently on file with the IRB. Any change affecting human subjects must be approved by the IRB prior to implementation and may disqualify the proposal from exemption.

Exemption from review does not release the investigator from statutory responsibility for obtaining the informed consent of subjects or their authorized representatives, as appropriate, either orally or in writing, prior to involving the subjects in research. The general requirements for informed consent and for its documentation are set forth in the Federal Policy for the Protection of Human Subjects, 45 CFR 46.116-117, copies of which are available in the University Research Compliance Office and online at <http://ohrp.osophs.dhhs.gov/humansubjects/guidance/45cfr46.htm#46.116>. In cases of remote oral data collection, as in telephone interviews, oral consent is sufficient and the researcher is required to provide the respondent with a copy of the consent statement only if the respondent requests one. The researcher must, however, ask the respondent whether he or she wishes to have a copy. The initiative in requesting a copy must not be left to the respondent. Regardless of whether the informed consent is written or oral, the investigator must keep a written record of the informed consent statement, not merely of the fact that it was presented, and must save this documentation for 3 years after completing the research.

The identification of a human subject in any publication constitutes an invasion of privacy and requires a separate informed consent.

Injuries or any unanticipated problems involving risk to subjects or to others must be reported immediately to the Chair of the Committee on Research Involving Human Subjects, the University Research Compliance Office, and if the subjects are KSU students, to the Director of the Student Health Center.

Appendix H

Interview Protocol Round One

Project: Electronic Academic Portfolios and the Assessment of Teacher Candidates

Time of Interview:

Date:

Place:

Teacher Candidate:

Round One Interview Questions

1. Briefly comment on the Folio-Live development for you.
2. What has surprised you?
3. What has frustrated you?
4. How has the development of this portfolio contributed to your competence as a novice teacher? (Campbell, 2000, 72)
5. What effect did the portfolio have on your motivation to learn? (Campbell, 2000, 72)
6. How did the portfolio influence the role that you played in your own assessment and evaluation of performance? (Campbell, 2000, 72)
7. How did the portfolio help you to assume more responsibility for your own learning? (Campbell, 2000, 73)
8. How did the portfolio help you experience the relationship between effort and results? (Campbell, 2000, 73)

Appendix I

Interview Protocol Round Two

Project: Electronic Academic Portfolios and the Assessment of Teacher Candidates

Time of Interview:

Date:

Place:

Teacher Candidate:

Round Two Interview Questions

1. Describe what you believe is the purpose of an academic portfolio.
2. Did you take Explorations in Education?
3. Describe how you reflect on your artifacts before uploading them to Folio-Live.
4. How do you assume responsibility for your own learning?
5. Describe how you evaluate your learning.
6. Describe what constitutes value for you in your learning process.
7. How can Folio-Live assist you in examining your educational growth?

Appendix J

Interview Protocol Round Three

Project: Electronic Academic Portfolios and the Assessment of Teacher Candidates

Time of Interview:

Date:

Place:

Teacher Candidate:

Round Three Interview Questions

1. Do you have a minor? If so what is your minor?
2. Are you a transfer student or have you spent your college career at PSU?
3. During the professional semester a professional portfolio is created for future employers to view. How will the process of creating an academic portfolio help you in selecting artifacts for your professional portfolio?
4. Describe your thoughts on self selection of artifacts to be placed in the academic portfolio rather than having professor-selected artifacts.
5. Describe how you place value on assignments completed for class.
6. What are you most proud of in your experience with creating an electronic academic portfolio?
7. While reviewing your Folio-Live academic portfolio are you able to see academic growth?
8. In what areas do you perceive growth?

9. How do your artifacts in your academic portfolio demonstrate that you are ready to enter the professional semester?
10. What suggestions would you give to future teacher candidates who are beginning to create an academic portfolio?

Appendix K

Cresswell's Guidelines to Protect Subjects

1. The right to participate voluntarily and the right to withdraw at any time, so that the individual is not being coerced into participation.
2. The purpose of the study, so that individuals understand the nature of the research and its likely impact on them.
3. The procedures of the study, so that individuals can reasonably expect what to anticipate in the research.
4. The rights to ask questions, obtain a copy of the results, and have their privacy respected.
5. The benefits of the study that will accrue to the individual
6. Signatures of both the participant and the researcher agreeing to these provisions.

(2003, 64.)

Appendix L

Teacher Candidate Survey Letter

Spring 2006

Dear Teacher Candidate:

I am asking for your help in completing a survey to determine your perceptions of creating and electronic academic portfolio.

Your opinion is very important to me. The results of this survey will be used to help determine teacher candidate perceptions.

This survey should take about fifteen minutes to complete.

You may be assured of confidentiality. Your name will not be associated with the survey responses.

The results of this research will be used to complete a research study and dissertation to fulfill a requirement of Kansas State University for the degree of Doctor of Philosophy.

If you have any questions, please contact Ms. Julie Samuels at 620-235-4183 or jepyle-s@pittstate.edu. The results will be published.

Appendix M

Teacher Candidate Perception Survey

Technology learning experiences for teachers is becoming more important in the world of education. Technology is shifting the very nature of education and it is becoming more important that teacher candidates should enter the work force prepared to face this technology revolution.

Pittsburg State University and the College of Education are interested in knowing how you feel about learning using Folio-Live (McGraw Hill, 2002) to create an academic portfolio. Please indicate to what extent you agree or disagree with each of the following statements.

1. Folio-Live has been easy to learn with relatively little outside support.
____ Strongly Agree ____ Agree ____ Not Sure ____ Disagree ____ Strongly Disagree
2. An academic portfolio will do little to improve my ability to teach.
____ Strongly Agree ____ Agree ____ Not Sure ____ Disagree ____ Strongly Disagree
3. I have made progress during my time at Pittsburg State University in learning how to use Folio-Live to create an academic portfolio.
____ Strongly Agree ____ Agree ____ Not Sure ____ Disagree ____ Strongly Disagree
4. My biggest fear of this technology is embarrassment in front of my peers or colleagues.
____ Strongly Agree ____ Agree ____ Not Sure ____ Disagree ____ Strongly Disagree
5. I prefer to learn things as an individual.
____ Strongly Agree ____ Agree ____ Not Sure ____ Disagree ____ Strongly Disagree
6. I cannot be expected to learn new technologies unless given formal training.
____ Strongly Agree ____ Agree ____ Not Sure ____ Disagree ____ Strongly Disagree
7. The best way to learn new technologies is to participate in formal training classes which show us and allow us to use the technology.
____ Strongly Agree ____ Agree ____ Not Sure ____ Disagree ____ Strongly Disagree

8. Sometimes I feel there is just too much change too fast without enough planning and support.
____ Strongly Agree ____ Agree ____ Not Sure ____ Disagree ____ Strongly Disagree
9. I will be a better teacher because of the creation of an electronic academic portfolio.
____ Strongly Agree ____ Agree ____ Not Sure ____ Disagree ____ Strongly Disagree
10. I do best with new programs and approaches when I can learn them with a partner.
____ Strongly Agree ____ Agree ____ Not Sure ____ Disagree ____ Strongly Disagree
11. This new technology is basically one more bandwagon in a long chain of education innovations which have made little impact on the world of education.
____ Strongly Agree ____ Agree ____ Not Sure ____ Disagree ____ Strongly Disagree
12. Even though I have more to learn, I am really proud of what I have accomplished and my academic portfolio demonstrates I am ready to become a teacher.
____ Strongly Agree ____ Agree ____ Not Sure ____ Disagree ____ Strongly Disagree
13. I sometimes feel that I have been left behind when it comes to technology. I do not feel comfortable with it and I do not see what good it will do.
____ Strongly Agree ____ Agree ____ Not Sure ____ Disagree ____ Strongly Disagree

Appendix N

Informed Consent Letter to Study Participants

Summer 2006

Dear Participant,

I am a doctoral candidate at Kansas State University in Curriculum and Instruction and I am asking you to participate in a research project involving teacher candidate perceptions of electronic academic portfolios.

The purpose of this project is to determine what perceptions of value teacher candidates have in creating an electronic academic portfolio.

I am asking you complete a pre and post survey, participate in three one-on-one interviews and keep an electronic journal responding to the process of creating an electronic academic portfolio.

If you are willing to participate in the project I will need you to sign the attached "Informed Consent" form and return it to me. If you have any questions at any time during the study, please contact me at my office (620-235-4183) or you may e-mail me at jepyle-s@pittstate.edu.

Thanks you for your time and consideration.

Sincerely,

Julie E. Samuels

Appendix O

Fowler's Think Aloud Guidelines

1. Asking respondents (teacher candidates) to define terms.
2. Asking respondents (teacher candidates) for any uncertainties or confusion they had about what the appropriate answer was.
3. Asking respondents (teacher candidates) how confident they are that they can give an accurate answer.
4. If the question called for a numerical figure, asking respondents (teacher candidates) how they arrived at the number; if a question calls for a rating task, asking respondents to talk about the process they went through to decide on the answers. (Fowler, 1995, 112)

Appendix P

Teacher Candidate Perception Survey Results

Question 1 Multiple Choice

Folio-Live has been easy to learn with relatively little outside support.

Answers	Percent Answered
Strongly Agree	0.0%
Agree	45.5%
Not Sure	9.099999%
Disagree	36.399998%
Strongly Disagree	9.099999%
<i>Unanswered</i>	0.0%

Question 2 Multiple Choice

An academic portfolio will do little to improve my ability to teach.

Answers	Percent Answered
Strongly Agree	9.099999%
Agree	27.3%
Not Sure	27.3%
Disagree	27.3%
Strongly Disagree	9.099999%
<i>Unanswered</i>	0.0%

Question 3 Multiple Choice

I have made progress during my time at Pittsburg State University in learning how to use Folio-Live to create an academic portfolio.

Answers	Percent Answered
Strongly Agree	36.399998%
Agree	54.5%
Not Sure	9.099999%
Disagree	0.0%
Strongly Disagree	0.0%

Unanswered 0.0%

Question 4 Multiple Choice

My biggest fear of this technology is embarrassment in front of my peers or colleagues.

Answers	Percent Answered
Strongly Agree	0.0%
Agree	45.5%
Not Sure	0.0%
Disagree	36.399998%
Strongly Disagree	18.199999%
<i>Unanswered</i>	0.0%

Question 5 Multiple Choice

Average Score: 1.07 point(s)

I prefer to learn things as an individual.

Answers	Percent Answered
Strongly Agree	27.3%
Agree	27.3%
Not Sure	9.099999%
Disagree	36.399998%
Strongly Disagree	0.0%
<i>Unanswered</i>	0.0%

Question 6 Multiple Choice

Average Score: 1.07 point(s)

I cannot be expected to learn new technologies unless given formal training

Answers	Percent Answered
Strongly Agree	0.0%
Agree	27.3%
Not Sure	9.099999%
Disagree	63.6%
Strongly Disagree	0.0%
<i>Unanswered</i>	0.0%

Question 7 Multiple Choice

The best way to learn new technologies is to participate in formal training classes which show us and allow us to use the technology.

Answers	Percent Answered
Strongly Agree	0.0%
Agree	45.5%
Not Sure	45.5%
Disagree	9.099999%
Strongly Disagree	0.0%
<i>Unanswered</i>	0.0%

Question 8 Multiple Choice Average Score: 1.07 point(s)

Sometimes I feel there is just too much change too fast without enough planning and support.

Answers	Percent Answered
Strongly Agree	9.099999%
Agree	45.5%
Not Sure	18.199999%
Disagree	18.199999%
Strongly Disagree	9.099999%
<i>Unanswered</i>	0.0%

Question 9 Multiple Choice Average Score: 1.07 point(s)

I will be a better teacher because of the creation of an electronic academic portfolio.

Answers	Percent Answered
Strongly Agree	0.0%
Agree	9.099999%
Not Sure	27.3%
Disagree	54.5%
Strongly Disagree	9.099999%
<i>Unanswered</i>	0.0%

Question 10 Multiple Choice Average Score: 1.07 point(s)

I do best with new programs and approaches when I can learn them with a partner.

Answers	Percent Answered
Strongly Agree	0.0%

Agree	63.6%
Not Sure	27.3%
Disagree	9.099999%
Strongly Disagree	0.0%
<i>Unanswered</i>	0.0%

Question 11 Multiple Choice Average Score: 1.07 point(s)

This new technology is basically one more bandwagon in a long chain of education innovations which have made little impact on the world of education.

Answers	Percent Answered
Strongly Agree	18.199999%
Agree	27.3%
Not Sure	18.199999%
Disagree	27.3%
Strongly Disagree	9.099999%
<i>Unanswered</i>	0.0%

Question 12 Multiple Choice Average Score: 1.07 point(s)

Even though I have more to learn, I am really proud of what I have accomplished and my academic portfolio demonstrates I am ready to become a teacher.

Answers	Percent Answered
Strongly Agree	0.0%
Agree	72.7%
Not Sure	18.199999%
Disagree	9.099999%
Strongly Disagree	0.0%
<i>Unanswered</i>	0.0%

Question 13 Multiple Choice Average Score: 1.07 point(s)

I sometimes feel that I have been left behind when it comes to technology. I do not feel comfortable with it and I do not see what good it will do.

Answers	Percent Answered
Strongly Agree	0.0%

Agree	18.199999%
Not Sure	9.099999%
Disagree	36.399998%
Strongly Disagree	36.399998%
<i>Unanswered</i>	0.0%

Appendix Q

Directions for Coding

1. Read the transcript
2. Highlight using the following:
 - Yellow: Domain 1 – Planning and Preparation
 - Blue: Domain 2 – Classroom Environment
 - Orange: Domain 3 – Instruction
 - Green: Domain 4 – Professional Responsibilities
3. Re-read original codes and cross reference using the following:
 - P: Theme A – Pride
 - O: Theme B – Organization
 - T: Theme C – Technology Skills
 - V: Theme D – Value
 - O: Other
4. Discuss

Appendix R

Coding Chart

Domain 1 Planning & Preparation					
Domain 2 Classroom Environment					
Domain 3 Instruction					
Domain 4 Professional Responsibilities					
	Theme A Pride	Theme B Organization	Theme C Technology Skills	Theme D Value	Other

CODES

Yellow: Domain 1 – Planning and Preparation

Blue: Domain 2 – Classroom Environment

Orange: Domain 3 – Instruction

Green: Domain 4 – Professional Responsibilities

P: Theme A – Pride

O: Theme B – Organization

T: Theme C – Technology Skills

V: Theme D – Value

O: Other

Appendix S

Electronic Academic Portfolio Framework

Professional Characteristics

- Performance Evaluation
- Personal History
- Resume
- Credentials
- Philosophy
- Code of Ethics
- Professional Development Experience in Schools
- Other

Relationships with Students

- Performance Evaluation
- Extra Curricular Activities
- Diversity Experience
- Shadow Study
- Student Mentoring
- Reflections
- Other

Instructional Plan

- Performance Evaluation
- Lesson Plan(s)
- Cooperative Learning Plans
- Unit Plan
- Learning Center
- Teaching Materials
- Teaching Evaluation of Resources
- IEP (Mod & Accm)
- Reflections
- Other

Instruction

- Performance Evaluation
- Work Sample
- Video Tape
- Technology Integration
- Reflections
- Other

Management

- Performance Evaluation
- Management Plan
- Policies and Procedures

Reflections
Other

Evaluation

Performance Evaluation
Pre/Post Analysis
Assessment Examples
Rubrics
Parental Communication
Reflections
Other