



## **Documenting Quality of Online Programs in Teacher Preparation**

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### **Introduction**

Over the next decade the demand for new teachers in the United States will exceed two million (Chambers, Chaloupka, & Weeks, 2003). The growing nationwide teacher shortage and the disparity between the number of candidates prepared by teacher education programs and the demand for teachers have educational leaders and policymakers exploring different roles for community colleges in the preparation of teachers. Community college involvement in teacher preparation has the potential to produce up to one-fourth of the teachers needed to meet the growing demand over the next decade (Blair, 2002; Floyd & Walker, 2003). Community colleges are also an attractive site for recruiting future teachers as they enroll a large percentage of first time college freshmen and have a more diverse student population than other postsecondary institutions (Kent, 2001; Floyd & Walker). In addition, rural areas, which often face the most significant teacher shortages, may benefit the most from community college involvement if access to teacher degree programs can be extended to these areas. In a study of teacher labor markets, Boyd, Lankford, Loeb and Wyckoff (2005), found that most teachers prefer to teach in communities with characteristics similar to their hometown and in their study, 61% of all teachers first taught in schools within 15 miles of their hometown.

To increase access to four-year degrees, collaborative partnerships called 2+2 programs were developed between community colleges and public or private teacher education programs. One type of 2+2 partnership, the university center model, delivers the entire course of study for the degree on the campus of the community college (Floyd & Walker, 2003). In this model, candidates in the university center follow the same curriculum, have the same degree expectations, and meet the same academic standards as the on-campus students. The community college faculty deliver the general education coursework and the teacher education program area coursework is delivered by university faculty. All programmatic decisions for the first two years are made by the community college and all programmatic decisions for the final two years are made by the university. A student can complete their general education coursework through the community college and then complete the university degree coursework

without having to attend classes on the main campus of the university. This model is especially useful in rural areas, which are often most impacted by lack of access to four-year degree programs and teacher shortages (Evelyn, 2002).

## **Method**

This study focused on comparing teacher education graduates from one university center model with the university's on-campus teacher education graduates to determine if the performance outcomes were comparable and the model was a viable addition to or alternative for existing preparation programs. Data collected for this study was compiled from existing databases at East Carolina University and in the College of Education at the University. These databases provided the descriptive data, performance data, and perceived competence data necessary for this study.

## Model

The partnership between the College of Education at East Carolina University (ECU) and community colleges in the ECU service area is called Wachovia Partnership East (WPE). The purpose of WPE is to fill more teacher vacancies by making a four-year education degree available at community colleges throughout the region. Established in 2001, Wachovia Partnership East is a co-location university center model operating four community college hub site campuses and a virtual consortium. The co-location model is defined as a university center partnership in which the partners share the same physical location to deliver programs (Lorenzo, 2005). The partnership currently serves approximately 360 teacher candidates in three degree program areas.

The instructional and administrative space at each hub site belongs to the community college, but the degree program and associated staffing and curriculum decisions are made by ECU. An ECU faculty member is assigned to each hub site, which serves a specific geographic consortium area that affiliates with the hub site. There are four physical hub sites located at A County Community College, B Community College, C Community College and D Community College. The Virtual Consortium serves transfer students from all state community colleges and is housed at E Community College.

In order to effectively provide the degree access, the Wachovia Partnership East model has a dual organizational structure. The curricular infrastructure for WPE resides in the Department of Curriculum and Instruction. Each program currently delivered in this partnership resides within this department. Candidates can pursue degrees in Elementary Education, Special Education or Middle Grades Education. The program areas have a coordinator that reports to the departmental chair. Each program area coordinator is responsible for scheduling, staffing, and trouble-shooting problems during field experiences and internships. The operational infrastructure for WPE resides in the Office of Teacher Education under the leadership of the Director of Teacher Education. An on-campus coordinator serves as the link between the Office of Teacher Education and the hub site campuses. Each hub site has a coordinator that serves a specific consortium area. Within each service area, there is one hub site campus and several other community colleges that are referred to as spoke campuses. Students can

complete their community college coursework at any of the partnering community colleges (spoke campuses). With the exception of the Virtual Hubsite, any blended or face-to-face sessions of the ECU degree coursework are delivered at the hub site campus.

A cohort model, a group of students who begin and end the program of study together by taking a prescribed sequence of courses, is utilized in WPE in order to deliver the degree programs. For both program areas, some courses are completely face to face at the hub site, some are completely online, and some are a blended model of face to face, online and tele-conferencing.

One of the most essential components of this partnership is the hub site coordinator, an ECU faculty member who works at the hub site and serves a geographic area. The coordinators are responsible for recruitment, student support, and most importantly, advising. Collaborative advising sessions are scheduled with all the community college partners so that students are aware of the coursework required for admission to the program and the connected scope and sequence. In addition to being a critical component of the advising process, the hub site coordinators work with university admissions and financial aid to ensure that the candidates are admitted and receive their financial support in a timely manner. The candidates have one university contact for all their issues and concerns.

The goals of WPE are based upon degree access and market demands. By providing degree access in local communities and targeting candidates with rural backgrounds or with personal characteristics or educational experiences that predispose them to live in rural areas, this model gives public school systems access to a previously untapped resource in addressing the teacher shortage. The program recruits prospective teachers from rural areas and educates them close to home, allowing them to remain in the rural communities where they live and have lived for most of their lives. Research by Boyd, Lankford, Loeb, and Wyckoff (2005) suggests that since these individuals are members of the community with many already connected to the school system; they are more likely to remain in the community upon degree completion.

### Population/Sample

The study investigated the comparison of the academic performance, dispositional indicators, and perceived competence between university center teacher education graduates and on-campus teacher education graduates in the 2005-2006 and the 2006-2007 academic years. During this period, 85 WPE students completed their teacher preparation programs and a random sample of 85 on-campus degree completers from the same period was selected as the on-campus group for comparison to the university center model graduates.

### Instrumentation

All data collected for this study was compiled from existing databases at the university and in the College of Education. The College of Education Information Management System maintains teacher candidate information and retrieves additional

information from the university's academic databases. These databases provided the descriptive data, performance data, and perceived competence data necessary for this study.

Four pieces of descriptive data: (a) age, (b) ethnicity, (c) gender, and (d) Praxis I scores were collected for this study. The performance data for the candidates consisted of: (a) Upper Division GPA, (b) Praxis II scores, (c) dispositions survey ratings, (d) internship progress report scores, and (e) senior portfolio scores. Candidates' responses to the Evaluation of Teacher Education Program Survey were used for the perceived competence data.

Teacher education candidates at the university must qualify for admission to Upper Division in order to complete the upper level course requirements. A set of courses in both elementary education and special education-general curriculum are designated as Upper Division courses. Students cannot enroll in these courses unless they are admitted to Upper Division. For the purpose of this study, the GPA represents the grades for Upper Division coursework only.

In compliance with state licensure standards, students completing degree or licensure programs in elementary education or special education must pass the Praxis II tests required in each program area. Elementary education candidates have two Praxis II tests, elementary education curriculum, instruction, and assessment and elementary education content area exercises; students must have a combined score of 313 to qualify for licensure. Special education-general curriculum candidates must take two tests, education of exceptional children core content knowledge and education of exceptional children mild to moderate disabilities. At the time data was collected candidates needed a minimum score of 143 on the core content test and a minimum score of 159 on the mild to moderate disabilities test to qualify for licensure. Test scores are submitted to the university by the Educational Testing Service.

All undergraduate teacher education candidates at the university are required to complete a two-semester senior internship with a clinical teacher in a public school. The first semester internship is the equivalent of one day per week with the clinical teacher, assisting the teacher and completing assignments related to the program area coursework. The second semester is a 15-week full-time internship with the same clinical teacher. During the second semester, the intern is assigned a university supervisor. It is the supervisors' responsibility to conduct a minimum of four observations, evaluate the portfolio, and submit all required paperwork.

The Council for Teacher Education developed the Teacher Education Candidate Dispositions Survey to assess candidate development of dispositions throughout the program. Three forms of the survey serve to create awareness of, provide feedback on, and evaluate the candidates' dispositions. The university supervisor completes form C, Evaluation, during the final semester of the senior-year internship. Twenty items divided into three categories: (a) professional demeanor, (b) professional commitment, and (c) professional interactions are evaluated on this survey. The university supervisor rates each item based upon the frequency of the candidate's observed behavior using a four point scale with ratings of (a) 4=Always, almost always, (b) 3=Usually, (c) 2= Sometimes, and (d) 1=Rarely.

A Progress Report form, also developed by the Council for Teacher Education, is submitted a minimum of four times for each candidate by the university supervisor

during the final semester internship. This report is divided into seven sections: (a) planning, (b) knowledge of subject area, (c) management of instructional time, (d) management of student behavior, (e) presentation, (f) instructional monitoring and feedback, and (g) professional attitudes and relationships. The item ratings are (a) above satisfactory, (b) satisfactory, (c) needs improvement, and (d) unsatisfactory. Each report is reviewed and signed by the candidate, clinical teacher, and university supervisor and the 4th and/or final Progress Report scores were used in this study.

Each teacher education intern is required to submit a portfolio during the final semester internship. Across all teacher education programs there are four common components: (a) instructional practice candidate work sample, (b) classroom management, (c) impact on student learning, and (d) technology skills. Component A is subdivided into four elements: (a) unit plan, (b) lesson plans, (c) related student work/formative assessment, and (d) reflection. Component B is subdivided into seven elements: (a) classroom rules, (b) daily protocols/routines, (c) levels of consequences, (d) intervention strategies, (e) preventive management/motivation techniques, (f) implementation plan, and (g) reflection. Component C is subdivided into three elements: (a) assessment design, (b) data analysis, and (c) reflection; this section also includes student pretest and posttest data of one instructional unit. Each element on all three components is rated as either exceeds, meets, or below expectations by the university supervisor in accordance with a common teacher education portfolio rubric. Each component must be at meets standard to be considered passing. For the purposes of this study, Component D was not included in the data collection since the approval is based upon competencies met in a required technology course.

Candidates' perceived competence is assessed using the Evaluation of Teacher Education Program, an exit survey developed by the Council for Teacher Education. Prior to completion of the senior internship experience, the interns are provided with a link to an online version of the survey. All interns are required to complete this evaluation prior to the end of the internship. The purpose of this instrument is to allow the candidates to provide feedback about their perceived competence in relation to their teacher education preparation and to make suggestions about the program. Candidates are asked to respond to 20 competency items by marking (a) strongly agree, (b) agree, (c) disagree, or (d) strongly disagree. The instrument includes items about school law, child psychology, assessment techniques, classroom management, diversity, student advising, and specific feedback about elements of the internship experience.

### Data Analysis

The descriptive, performance and perceived competence data for the 85 university center degree completers was compared to the data for the random sample of 85 on-campus teacher education graduates. The SPSS 13.0 quantitative software package was utilized to analyze the data. The interval data was analyzed using the t-test for independent samples and the nominal data was analyzed using the chi-square test. A significance level of .01 was set to determine if the results were not by chance but due to some difference in the two comparison groups.

## Results

### Analysis of Sample Characteristics

The university center sample was an existing group of 85 degree completers. Because the comparison group was selected randomly from all on-campus Elementary Education and Special Education degree completers, the first level of analysis in the study was conducted to insure further comparability of the program results. An analysis of age, ethnicity, gender, and Praxis I performance was conducted to statistically test any differences between the two groups (Table 1).

Table 1

	<u>WPE</u>	<u>On-Campus</u>	<u>t-test</u>
PRAXIS I - Reading	180.1	179.9	n.s.
PRAXIS I - Writing	175.9	176.5	n.s.
PRAXIS I - Math	179.1	180.4	n.s.
AGE	35.7	23.6	0.00
	Chi-Square		
Ethnicity	n.s.		
Gender	n.s.		

The analysis of the descriptive characteristics revealed that in the comparison between university center graduates and on-campus graduates there was no significant difference in the ethnicity, gender, and performance on the Praxis I reading, writing, and mathematics. There was a significant difference in the age distribution but it appears to reflect a recurring difference in the composition of the university center and on-campus student populations and was not viewed as an impediment to the analysis of the program performance characteristics (Grady, 2005).

### Analysis of Performance Data

Five different measures assessing 43 separate items of candidate performance provided the performance data for this study: (a) Upper division grade point average, (b) PRAXIS II scores (c) dispositions survey, (d) progress reports, and (e) senior portfolio (Table 2). Significant differences were found between the performance of WPE candidates and On-Campus candidates on eight assessment items.

Table 2

**Performance Results**

	<u>WPE</u>	<u>On-Campus</u>	<u>t-test</u>
GPA	3.73	3.60	n.s.
PRAXIS II - Difference	33.9	29.7	n.s.

**Dispositions**

**Chi-Square**

Demonstrates adherence to standards of professional ethics.	n.s.
Wears professional attire for teachers when in a school setting.	n.s.
Demonstrates reliability by performing assigned tasks or duties on time without prompting.	n.s.
Displays a positive attitude toward teaching and interactions with students and families.	n.s.
Responds to frustration and stress with poise and seeks positive outlets for emotions.	n.s.
Demonstrates resourcefulness, initiative, and independence.	n.s.
Accepts responsibility for successes and mistakes and seeks solutions to problems	n.s.
Establishes an environment of respect for diversity in professional relationships and through culturally responsive teaching.	n.s.
Respects students as valued individuals by focusing professional decision-making upon student needs rather than personal preference.	n.s.
Thinks critically; perceiving multiple sides of an issue or problem in order to develop creative solutions and make appropriate decisions.	n.s.
Solicits suggestions and feedback and seeks opportunities for professional growth.	n.s.
Responds positively to constructive criticism and suggestions by integrating professional feedback into practice.	n.s.
Examines critically his/her perspective, experiences, and effectiveness and reflects on ways to improve student performance	n.s.
Persists in seeking new and more effective teaching strategies to help all children achieve success.	n.s.
Listens and responds thoughtfully to the ideas and perspectives of others.	n.s.
Demonstrates diplomacy, tact and sensitivity toward the feelings and opinions of others.	n.s.
Demonstrates awareness of impact of own words/actions on students by monitoring and adjusting personal behavior accordingly.	n.s.
Shares ideas and materials willingly and contributes actively to positive group functioning.	n.s.
Articulates ideas clearly and comfortably in conversation, discussion or presentation, demonstrating conventions of standard spoken English and	n.s.

awareness of audience.

Articulates ideas clearly and coherently in writing demonstrating conventions of standard written English and awareness of audience. n.s.

<b>Portfolio</b>	<b>Chi-Square</b>
<b>A. Instructional Planning</b>	
1. Instructional unit plan	0.001
2. Lesson plans	0.000
3. Related work, formative assessment	0.000
4. Reflection	n.s.
<b>B. Classroom Management</b>	
1. Rules	n.s.
2. Daily Protocols	n.s.
3. Consequences	0.009
4. Intervention Strategies	n.s.
5. Preventive Behavior	0.009
6. Implementation	n.s.
7. Reflection	n.s.
<b>C. Impact on Student Learning</b>	
1. Assessment Design	0.000
2. Data Analysis	0.001
3. Reflection	0.002

<b>Progress Report</b>	<b>Chi-Square</b>
Planning	n.s.
Content Knowledge	n.s.
Instructional Time Mgmt.	n.s.
Student Behavior Mgmt	n.s.
Presentation	n.s.
Monitoring & Feedback	n.s.
Professional Attitudes	n.s.

Further analysis of the significant differences between the two groups showed that they occurred in the items evaluated in the candidate portfolio (Table 3). A larger percent of WPE students were rated as "exceed expectations" than the On-Campus groups. These results suggest areas for exploration in comparing the two delivery modes, but maintain the quality of candidates in both groups as no student received a rating of "below" expectations.



Table 3

**Portfolio Items with Significant Differences**

	WPE % Exceeds	On-Campus % Exceeds	Chi-Square
<b>A. Instructional Planning</b>			
1. Instructional unit plan	80.0	55.3	0.001
2. Lesson plans	85.9	62.4	0.000
3. Related work, formative assessment	81.2	51.8	0.000
<b>B. Classroom Management</b>			
3. Consequences	55.3	35.3	0.009
5. Preventive Behavior	30.6	20.6	0.009
<b>C. Impact on Student Learning</b>			
1. Assessment Design	67.1	36.5	0.000
2. Data Analysis	27.1	14.7	0.001
3. Reflection	34.7	22.9	0.002

Analysis of Perceived Competence

The perceived competence of the university center teacher education graduates and the on-campus teacher education graduates was assessed based on their responses to the Evaluation of Teacher Education Survey that was conducted prior to completion of the senior internship experience. The candidates rated 20 items on a continuum from strongly agree to strongly disagree. The results of the chi-square tests on all twenty items (Table 4) indicated that there were no significant differences between the two groups in their perceived competence.

Table 4

**Evaluation of Teacher Education**

	Chi-Square
1. I understand:	
(a) the influence of communication on individual development.	n.s.
(b) the process of learning to listen, speak, read and write the English language clearly and effectively.	n.s.
2. I understand the public school laws that relate to the roles and responsibilities of the teacher.	n.s.
3. I have an historical and philosophical context in which to interpret and understand issues in education.	n.s.
4. The child/developmental psychology courses helped me understand the cognitive, psychological, and social growth of school age persons.	n.s.
5. I am able to apply the knowledge of cognitive, social, affective and psychomotor development to plan instruction.	n.s.

6. I am prepared to work with students of varying ability levels and cultural backgrounds.	n.s.
7. I know how to adjust my teaching to meet the needs of exceptional children and youth.	n.s.
8. I have the knowledge and skills to implement instruction appropriate to my area of concentration.	n.s.
9. I am able to use technology appropriately with students.	n.s.
10. I am able to diagnose reading problems and prescribe strategies for improvement.	n.s.
11. I am able to assess the reading level of students and choose materials in keeping with students' reading capabilities.	n.s.
12. I have the knowledge and skills to organize a classroom for effective use.	n.s.
13. I understand the techniques used to observe, analyze, and manage classroom behavior	n.s.
14. My methods course provided me the skills to effectively plan for and instruct in a classroom	n.s.
15. I have the knowledge and skills to effectively evaluate/assess students.	n.s.
16. I can use evaluation findings to modify instructional practices.	n.s.
17. I am able to effectively discipline students.	n.s.
18. My laboratory (practicum) experiences provided me with the opportunity to observe in a variety of classroom settings.	n.s.
19. Internship gave opportunity to:	
(a) apply theory	n.s.
(b) develop skills	n.s.
(c) demonstrate competencies	n.s.
(d) assess my students' learning	n.s.
23. I am aware of the need for continuing education and professional development.	n.s.
24. I am able to reflect upon and adjust my own teaching practices to improve student learning.	n.s.
25. My education course work and/or laboratory (practicum) experiences enhanced my ability to teach children from diverse cultural backgrounds.	n.s.

## Discussion

The purpose of this study was to determine if there was any significant difference in the quality of teacher education graduates prepared through a university center model of program delivery in comparison to teacher education graduates prepared in a traditional on-campus program. An analysis of 69 separate variables assessing candidate performance, dispositional indicators, and perceived competence indicates that while there were some significant differences between the 85 university center teacher education graduates and the 85 on-campus teacher education graduates, they occurred in only one performance measure (Portfolio) and were significant only in the degree (met expectations versus exceeded expectations). Overall, the results of this

study provide a foundation for future studies examining the role of community colleges in teacher education preparation and have several implications for educational leaders.

1. The results of this study suggest the efficacy of this university center distance education model as a viable alternative to traditional on-campus teacher education programs.
2. The results of this comparison suggest that educational leaders and policymakers can create and expand similar collaborative distance education models in an effort to reduce the barriers of degree access and affordability for students pursuing a teaching career.
3. The results of this comparison suggest that educational leaders and policymakers can create and expand collaborative distance education models of equal quality with traditional programs in an effort to reduce the teacher shortage in rural areas.