

# Developing Learner-Centered Technology Assignments with Student Teachers

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## ABSTRACT

The International Society for Technology in Education and the National Council for Accreditation of Teacher Education are calling for significant changes in teacher preparation programs to infuse more technology into teaching and learning. Using technology to enhance pedagogy is necessary in professional development schools where universities and school district personnel work in partnership to prepare technology-competent teachers. Learning how to infuse technology into lessons and assignments that will meet the needs of all members of the learning community requires explicit planning in order to be effective. This article describes how university faculty and a technology co-teacher worked together to plan and implement technology-infused assignments and lessons with student teachers that resulted in positive learning outcomes for all participants.

Carefully designed infusion of technology into field experiences for preservice teachers can provide a formal teaching and learning approach that encourages future teachers to demonstrate and model proficiency in technology applications and usage. Thus, novice teachers should develop the ability to use available technology as a tool to enhance the learner's experience. Ideally, appropriate technology infusion will give

preservice teachers the opportunity to learn how to structure lessons, student projects, and student activities that are motivational, involve active participation, permit collaboration, emphasize content mastery, and individualize instruction. As these teachers enter the profession, they will have a unique set of skills and technology-related experiences that will empower them to be adept in their classroom environment, plan the equitable use of technology resources, and build a dynamically networked learning community based on curricular needs and goals.

The purpose of this article is to describe how funding from a Preparing Tomorrow's Teachers to Use Technology (PT<sup>3</sup>) grant (The Millennium Project, 1999) made it possible for university faculty, master technology teachers, and university students to design high-quality technology-infused assignments to meet the teaching and learning expectations of a professional development school (PDS).

## Overview of the PDS Experience

A PDS is a field-based teacher certification program that holds great promise for better preparing teachers for the next century. These schools exist through a collaborative relationship between school districts and colleges of education (Carnegie Corporation, 1986). The University of North Texas (UNT) is commit-

ted to achieving full-fledged, successful implementation of a PDS model for all of its teacher candidates that is in line with standards set by the National Council for the Accreditation of Teacher Education (NCATE, 1992). As a result, collaborative group problem solving and shared decision making with various local school district partners is important to ensure high-quality teaching and learning for all participants. The PDS partner district described in this article is located in an upper-middle-class suburban area in the Dallas-Fort Worth Metroplex. Earlier state funding made it possible to build a strong technology infrastructure. Technology training was also provided for infusing technology into teaching and learning for all members of the learning community (Miller & Rademacher, 1996). Thus, the district is a rich training ground for technology infusion into student teaching and learning experiences.

This PDS partnership is in its fourth year of learning together. Approximately 30 preservice elementary teachers spend a full year in one of six elementary schools, two intermediate schools, and/or one junior high school. A high priority is placed on developing high-quality mentor teachers and skilled university supervisors to support the students in various learning activities. It was also determined from the beginning of this partnership that a major focus of all activities would be how to better differentiate instruction for

all students in PDS classrooms. Thus, a major goal is to improve ways to address the needs of high, average, and low performing students, as well as other students who may be gifted and talented, have learning and emotional/behavioral differences, and/or be limited in language proficiency. Having access to a technology-rich environment in this PDS is an opportunity for students, professors, mentor teachers, and public school children to use technology as a tool to enhance learning for all. Truly, opportunities exist to "bridge the gap" between the most up-to-date learning research and practice during both the early field and student teaching semesters.

### Technology Infusion during the Early Field Semester

During the first semester of their senior year, students are referred to as "student interns." They attend four methods classes on the UNT campus on Mondays and Tuesdays. These courses include math methods, science methods, social studies methods, and an elementary curriculum course. One faculty member, designated as the site coordinator, is responsible for coordinating field-based assignments and observations relating to each course. Thus, joint planning among UNT faculty and a district planning team of teachers and administrators is necessary for smooth coordination and completion of observation and teaching activities required of the preservice teachers while they are in PDS classrooms.

To accomplish course-related assignments, interns spend all day Wednesdays and Thursdays in PDS classrooms. They spend half of the semester with one primary-grade-level mentor teacher and the other half with a different mentor who teaches at the upper-elementary or middle school level. Although based with two mentor teachers for the semester, interns also observe in other classes and various program areas in the school so as to get the "big picture" of public school life as it exists in the district. It is during this semester that each intern is expected to develop a learner-centered technology assignment that will be of

benefit to all members of the learner-centered community.

To create a learner-centered community, preservice teachers collaboratively identify needs, then plan, implement, and assess instruction using technology and other resources (Texas State Board of Education, 1994). A learner-centered technology assignment facilitated by the teacher ensures equity in excellence for all learners by including characteristics of a high-quality assignment that is respectful and sensitive to the needs of all learners while encouraging the use of their skills and talents.

Known as the "Student Choice Technology Assignment," guidelines for this assignment are open-ended so as to meet the individual technology needs of each intern, the intern's mentor teacher, and the students in the mentor's class. Interns have a choice during this first semester to implement the planned assignment with their students and/or to implement it with some adaptations during the following student teaching semester.

#### Guidelines for the Student Choice Assignment during the Early Field Semester

Future educators must learn to arrange tasks and instruction to meet the needs of an increasingly diverse population. One way to enhance learning for *all* learners is through a "student choice" assignment. An effective student choice assignment matches an important learning goal while providing students with options for the final product and how to complete it. Modeling effective assignment completion procedures by university faculty is important so that future teachers can apply them with their own students (Rademacher, Bridges, Hildreth, Walker, & Callahan, 1998). Two planning forms were created to guide the interns' thinking as they developed a meaningful technology assignment based on their needs and the needs of mentor teachers and students.

**Planning and Resource Forms**  
*Student Intern Planning Sheet and Approval Form.* This sheet is presented to interns as a planning tool for thinking

about how to develop their particular assignment (Figure 1). For example, you will note that Item 1 in the "Plan" section of the form asks the interns to think about which technology competency for teachers the assignment will help them meet according to district and/or state guidelines. Item 2 prompts them to think about the purpose of the assignment. Item 3 helps the interns identify which methods course (math, science, social studies, or elementary curriculum) the assignment might relate to. Importantly, Item 4 requires the interns to think about benefits to themselves and to their students. Item 5 asks the interns to list the steps they will need to follow in their plan to complete the assignment, and Item 6 leaves room to jot down resources they will need.

The bottom half of the form is for instructor approval and comments. The instructor checks the appropriate line and offers comments and suggestions to the intern on how to improve the plan if necessary.

*Self-Evaluation of the Student Choice Assignment.* This sheet is presented to students at the same time they receive the Student Intern Planning and Approval Form. This form (Figure 1) presents the grading criteria for the final product in the form of a rubric. You will note the mnemonic device "PACE" depicted under the heading Standard Requirements for All Assignments. This means the assignment must be Prompt, Arranged neatly, Complete, and Edited for clarity—important minimal criteria if students are to earn a good grade.

The bottom half of the page includes a list of criteria for students to look for as they check their assignment for quality. These are listed under the heading Additional Requirements for Student Choice Assignment. The additional requirements can vary from assignment to assignment, but represent specific things to look for in order for the product to be judged "quality work." There is a blank space next to each designated criteria for both the student and the instructor to rate whether they believe that particular expectation for quality work was met. It is recommended that

## Student Choice Technology Assignment

### Student Intern Planning Sheet and Approval Form

Your name: \_\_\_\_\_

Assignment: \_\_\_\_\_

#### Plan

1. This assignment is based on the following technology competency for teachers: \_\_\_\_\_  
 \_\_\_\_\_

2. The purpose of this assignment is to \_\_\_\_\_  
 \_\_\_\_\_

3. This technology assignment helps me meet a competency for \_\_\_\_\_ (which course?) because \_\_\_\_\_  
 \_\_\_\_\_

4. This assignment will be of benefit to me and to my students because \_\_\_\_\_  
 \_\_\_\_\_

5. This is my plan of action. \_\_\_\_\_  
 \_\_\_\_\_

6. The following resources will be used to complete this assignment. \_\_\_\_\_  
 \_\_\_\_\_

#### Instructor Approval and Comments

I approve of this assignment in helping you reach your learning goal. \_\_\_\_\_

I disapprove of this assignment in helping you reach your learning goal. \_\_\_\_\_

Comments/Suggestions: \_\_\_\_\_  
 \_\_\_\_\_

### Self-Evaluation of Student Choice Assignment

Your name: \_\_\_\_\_

Assignment: \_\_\_\_\_

Due date: \_\_\_\_\_ Worth: \_\_\_\_\_

#### Grading Criteria

##### *Standard Requirements for All Assignments*

Ask yourself if your finished assignment meets the following criteria (5 points each):

	Student Rating	Instructor Rating
Prompt? (met due date)	_____	_____
Arranged neatly? (no stray marks, even margins, well organized)	_____	_____
Complete? (all directions followed, all questions answered)	_____	_____
Edited? (accurate spelling, grammar, and punctuation: clarity and accuracy of content)	_____	_____

##### *Additional Requirements for Student Choice Assignment*

Ask yourself if your finished product meets the following criteria according to your assignment plan:

15 pts. Assignment matched the identified learner competency	_____	_____
10 pts. Assignment had an important purpose	_____	_____
10 pts. Assignment will be of benefit to me and/or others	_____	_____
25 pts. Plan of action was followed carefully	_____	_____
20 pts. Appropriate resources were used	_____	_____

#### Personal Reaction to Student Choice Assignment Completion

Student Comments: \_\_\_\_\_  
 \_\_\_\_\_

Instructor Comments: \_\_\_\_\_  
 \_\_\_\_\_

Figure 1: Intern Planning and Evaluation Forms for Student Choice technology Assignment

this kind of self-checking routine be used as a set of standard criteria to involve students in the evaluation of their own work in order to earn a good grade (Rademacher, 2000). Teaching student interns how to use this self-checking process on their own assignments increases the likelihood they will adapt it for use with their future students.

The bottom section of the self-evaluation form includes space for student and instructor comments. This form is very useful as the instructor grades the product and offers feedback on how the assignment might be improved.

*The Technology Challenge Form.* Knowing that preservice teachers are at different levels of competence regarding their technology skills, the Technology Challenge Form (Figure 2) was created. According to this form, students choose from three separate lists of options they believe to be the most challenging for infusing technology into an assignment of their own creation. Students are encouraged to take advantage of district resources and training to stretch their knowledge and skills to the maximum extent possible. The first list (Challenge #1—Good) con-

tains technologies such as tape recorders, overhead projectors, and so on; the second list (Challenge #2—Better) consists of computer software, e-mail, and so on; the third list (Challenge #3—Best) includes distance learning, Web construction, and so on.

*The Technology Search and Find Sheet.* This information sheet (Figure 3) was developed to help the student interns know how to locate technology resources in each of their respective buildings. This is considered the “first step” a beginning

Challenge #1—Good	Challenge #2—Better	Challenge #3—Best
Video cameras Tape recorders VCRs Overhead projectors Slide projectors TVs Nondigital cameras  Choose 2 from this list and 1 from Challenge #2	Computers Software—Word processing Software—Basic presentation Software—Graphics E-mail Digital cameras Internet use—Basic Curriculum bookmarks Scanner use  Choose 2	Distance learning Computers Software—Spreadsheets Software—Advanced presentation Internet Use—Advanced Web construction Robotics Satellite use Advanced graphics programs  Choose 1
Individual Goal _____ Approval _____  Good, Better, Best! Never let it rest! Make your good better and your better best!		

**Figure 2: Technology Challenge Form**

<b>Technology Search and Find</b>
Name of student teacher _____
Campus of student teacher _____
Mentor teacher/s _____
<ol style="list-style-type: none"> <li>1. Make a list of classroom computer equipment available to use.</li> <li>2. Make a list of classroom computer software available to use.</li> <li>3. What computer skills does your mentor teacher know and can share with you?</li> <li>4. What computer skills do you as a student teacher know?</li> <li>5. Send e-mail to other classroom teachers in your building. Ask them if they have other technology equipment for use in your classroom.</li> <li>6. Visit your campus library. Make a list of technology equipment available for loan to the classroom. (Interview the librarian if necessary to find out this information.)</li> <li>7. Visit your campus computer lab(s). Make a list of technology equipment available to use with your students. (Interview the campus technology coordinator if necessary to find out this information.)</li> <li>8. Are there any other campus areas available for technology use?</li> <li>9. Is there any district technology available at other campuses for check-out use?</li> <li>10. Are there any students or parents who have special technology skills that can be shared with you?</li> </ol>

**Figure 3: Technology Search and Find Sheet**

teacher should complete in order to plan ways to infuse technology into teaching and learning. Thus, places to visit and people to contact so as to gain an accurate accounting of all the resources available are listed on the form.

### Early Field-Based Technology Training

Two full days of technology training are provided for the student interns early in the semester to help facilitate the students' completion of their technology assignments. The training is conducted in one of the campus technology labs. The co-teacher, faculty member, and technology coordinator for the school conduct the training. Topics from Training Agenda 1 (The Use of Technology for an Effective and Efficient School Day) are accomplished on the first day. Topics from Training Agenda 2 (The Application of Technology for an Efficient and Effective School Day) are presented on the second day (Figure 4).

### Example Assignments

Student interns were very innovative in their approach to this required assignment

and were sensitive to making it relevant to themselves and their students. Several of the students created unique class Web pages to benefit both students and parents. A few of the students conducted long-distance learning lessons between schools in the district. One student developed an Australian Pen Pal project on weather that could be easily implemented with her students the following semester. Another student used the digital camera and PowerPoint to develop a class book. Still other assignments included various content-area lessons using PowerPoint. One student helped her mentor teacher design a book and digital presentation on How to Care for a Snake to be used as a training guide for students in the science lab.

### Learner Reflections on Student Choice Assignments

As part of the evaluation process, student interns are asked to write down comments about what they learned as a result of completing the student choice assignment. Mentor teachers are also asked to comment on what they learned as a result of the assignment. Specifically, student interns and mentors are asked to

write down what they learned, what they liked, and what they would change about the assignment.

When asked what they had learned as a result of the assignment, student teachers made such comments as "How to use new technologies—PowerPoint, digital camera, Inspiration, long distance learning lab, and Front Page"; "How easy it is to integrate technology into lessons"; "How to locate reliable information"; "How beneficial and motivating technology can be for everyone"; and "How much time it takes to plan and teach *well* with technology." Mentor teacher comments indicated what they had learned, such as "How to create a Web site with her assistance," "How to import graphics," and "She knew a lot more about technology and was willing to share."

Frequent comments from students on what they liked included, "That I was given a 'push' to jump into technology," "That I had great support from everyone that encouraged me to 'stretch' myself," "That my kids worked so hard—were excited—and some helped me," "That I learned with the students and with everyone else," and "That I was able to create

<p align="center"><b>The Use of Technology for an Efficient and Effective School Day</b> Training Agenda 1</p>	<p align="center"><b>The Application of Technology for an Efficient and Effective School Day</b> Training Agenda 2</p>
<ol style="list-style-type: none"> <li>1. Using technology successfully               <ul style="list-style-type: none"> <li>• Organizing in the classroom</li> <li>• Resources to help the busy teacher</li> </ul> </li> <li>2. Technology project for interns, spring 2000               <ul style="list-style-type: none"> <li>• Technology search</li> <li>• Student Intern Planning Sheet and Approval Form</li> <li>• Self-Evaluation of Student Choice Assignment</li> </ul> </li> <li>3. Technology activities connected with educational coursework               <ul style="list-style-type: none"> <li>• 3320 (Elementary Curriculum)</li> <li>• 4330 (Scientific Methods)</li> <li>• 4340 (Social Studies Methods)</li> <li>• 4350 (Math Methods)</li> </ul> </li> </ol>	<ol style="list-style-type: none"> <li>1. District user policy</li> <li>2. Login procedure for campus server</li> <li>3. Using district e-mail (Groupwise)               <ul style="list-style-type: none"> <li>• Login procedure</li> <li>• E-mail</li> <li>• Web access</li> <li>• Calendar</li> </ul> </li> <li>4. Using a gradebook</li> <li>5. Using a library database (Athena)</li> <li>6. Internet connection               <ul style="list-style-type: none"> <li>• Netscape Communicator</li> <li>• Internet Explorer</li> </ul> </li> <li>7. Puzzlemaker</li> <li>8. Capturing graphics and saving to a folder</li> <li>9. Using Microsoft Word and the use of Insert</li> <li>10. Keeping lesson plans in Microsoft Word</li> <li>11. Using Microsoft Excel for weekly lesson planning</li> <li>12. Curriculum bookmarks in Microsoft Word</li> </ol>

**Figure 4: Training Agendas to Support Student Choice Assignment Completion**

something meaningful that I can leave with my mentor teacher for future years." Favorable mentor teacher statements included, "How she helped me incorporate technology into the classroom," "Helping her learn about technology," and "That I have something that will be useful to me and my students."

When asked what they would change, several students said, "Nothing at all." Other student comments included, "How to use more learner-friendly sites," "A 'half way' point to see how we are doing," and "I would have started earlier." Mentors were also positive toward the assignment. One mentor said she would like, "More time to assist with the project so I can continue it after she is gone." Another said, "I would pay more attention to how she did it all."

### Technology Infusion during the Student Teaching Semester

During this semester, UNT students are referred to as "student teachers." They student teach with the same mentor teachers they were placed with during the early field semester. Student teachers are expected to student teach Monday through Friday as well as attend all school-related activities with their mentors according to the district calendar. It is also during this semester that student teachers complete three required one-hour courses. Content for these three courses are topics in special education, topics in multicultural education, and topics in measurement. University faculty and district personnel team to deliver the course content over the semester in a seminar format titled the Professional Development Institute (PDI). Student teachers are again expected to complete field-based PDI assignments that relate to diverse learners. It is during this semester that the second technology assignment is developed. Known as the CHOICES Project, this assignment must be implemented with students in mentor classrooms.

**Overview of the CHOICES Project**  
As learned through direct observation during the early field semester, future teach-

ers *can* learn how to create technology-infused assignments that are motivational for their students and useful to themselves and their mentors. It is during the student teaching semester that student teachers have an opportunity to also teach their students how to become actively involved in the assignment completion process so that they know how to produce quality work. This is especially important for some students who may lack effective and efficient assignment completion procedures.

### Steps for CHOICES

The mnemonic, CHOICES, is used to complete the steps for this project with the student teachers. The site coordinator met with a special education resource teacher and the gifted and talented teacher in the district to devise these steps. When preservice teachers are shown how to carefully consider the possible options for students to choose from in order to develop a meaningful assignment, the needs of diverse learners are more likely to be met. Figure 5 depicts an explanation of the CHOICES Project. The first column lists each instructional step. The second column explains the actions student teachers follow to complete each step.

### Technology Training

A three-hour seminar is conducted by UNT faculty and the technology co-teacher. Steps in the CHOICES Project and related planning forms are explained. Student teachers work in small groups to begin planning their projects. The technology co-teacher arranges a time to meet with the student teachers within the following two weeks to answer questions and address concerns. This ongoing support in the schools is necessary to facilitate successful completion of each project.

### Example Assignments

Some student teachers expand their early field assignments to reflect student involvement in the planning and evaluation process. Other students modify their earlier assignments to reflect new content-area objectives. Thus, Web pages are refined, more PowerPoint pre-

sentations are created, long distance learning and e-mail projects are expanded, and innovative lessons that include learner-centered assignments for students are required and implemented. Such creations have included shopping online for second graders; biography book reports for fifth and sixth graders shared through distance learning; science and social studies units that infuse technology for research, writing, and illustrations; idea maps on owls using Inspiration software; and a center-type assignment for second graders that taught them how to create pie and bar graphs.

### Learner Reflections

As in the first semester, student teachers and their mentors commented that they learned a great deal about how to use technology as a tool to enhance teaching and learning for children. It was during this semester that the student teachers really began to see the effect technology can have on their students. They saw that technology can be a valuable tool, but the key to making it work to improve learning really lies in the hands of the teacher. Including the student choice assignment as part of this project also resulted in positive insights. As one eighth-grade student teacher commented, "My students showed an unusual level of enthusiasm for this project. I can only speculate that this was because they had a lot of autonomy in deciding how they would go about it, but had clear enough guidelines that they knew what to expect."

### Summary and Conclusion

With support from PT<sup>3</sup> funding, a technology co-teacher was available to work with university faculty to develop learner-centered technology assignments with preservice teachers in field-based settings.

Three conclusions can be drawn from this experience. First, future teachers *can* learn to plan and implement learner-centered technology assignments based on best practice. This is possible when university faculty model proven guidelines on how to plan and evaluate high-quality assignments with their students.

Instructional Steps for CHOICES	Actions
Check available technology for all students.	Interns review resources at various schools that were collected during the first semester. They share resources across schools to learn what is available to students, including adaptive technology.
Honor HALO student needs and interests.	Faculty and students discuss various ways to differentiate instruction for diverse learners. HALO stands for <b>H</b> igh, <b>A</b> verage, and <b>L</b> ow performing students as well as <b>O</b> ther students who may have special needs.
Organize and teach an effective technology-infused lesson.	Critical teaching behaviors for planning and delivering an effective lesson are taught and reviewed. The lesson cycle includes a decision-making phase to ensure a grade-level objective for technology is being met according to district and state guidelines, an organizer/motivator phase to obtain student attention to the lesson, an information input phase that includes new concepts and ideas to be learned, and a practice phase with monitored guided and independent practice activities.
Include a "student choice" assignment for independent practice.	Student teachers use a similar planning sheet to the one they used to develop their own assignment during the early field semester. Thus, an assignment is developed that includes due date(s), clear directions, options/choices for their students on how to complete the assignment, grading criteria, and supplies and resources.
Check student understanding through the REACT Strategy.*	As the student teachers explain the "student choice" assignment to their students, they give time for the students to apply the REACT Strategy. Thus, students are given time to: <b>R</b> evise the directions; <b>E</b> valuate whether the directions are complete as far as their options and choices, grading criteria, and the needed supplies/resources; <b>A</b> sk questions about anything they don't understand; begin to <b>C</b> reate a plan for completing the assignment; and <b>T</b> arget some goals for quality work.
Evaluate finished assignments with the PACE Self-Checking Routine.**	Student teachers teach their students the meaning of PACE ( <b>P</b> rompt, <b>A</b> rranged neatly, <b>C</b> omplete, and <b>E</b> dit for clarity) as a way to evaluate their finished work before handing it in to be graded.
Self-reflect on your project in terms of what you learned and what your students learned.	Student teachers present their projects at a mentor celebration on the last day of student teaching. As part of their presentation, they report what they and their students learned as well as describe ways they could improve on their project with future classes.
<p>* Directions for teaching the REACT Strategy to students are contained in the Quality Assignment Routine (Rademacher, Deshler, Schumaker, &amp; Lenz, 1997).</p> <p>** Directions for teaching the PACE Routine to students are contained in the Quality Assignment Routine (Rademacher et al., 1997).</p>	

**Figure 5: Explanation of the CHOICES Project**

Second, both technological and *human* resources are needed to support student teachers in their efforts to create meaningful and motivating technology-infused assignments. Without ongoing support from the district technology co-teacher who worked with UNT faculty, it is doubtful that the quality of work on each assignment would have been achieved. Third, everyone learns together when provided with clear planning and implementation steps for developing technology-infused assignments.

The learners in this PDS conclude that a good technology-based assignment is based on three factors. First, it covers an extended period of time by allowing students to work in class over days with the teacher serving as a resource. Second, it always relates to a learning objective that is more easily mastered through the use of technology. Third, the task is open-ended so that diverse learners may personalize their learning and go beyond minimal expectation through the choices that are permitted. Third, it requires a rubric to guide quality throughout the project. If our educational system is to produce "technology-capable kids," both professional development programs for teachers currently in the classroom and preparation programs for future teachers must provide technology-rich experiences throughout all aspects of training programs to meet national standards as delineated by the International Society for Technology in Education (ISTE, 2000). Working together, we can empower all learners with the advantages technology can bring to an ever-changing world.

## REFERENCES

- Carnegie Corporation. (1986). *A nation prepared: Teachers for the 21st century*. New York: Author.
- International Society for Technology in Education. (2000). *National educational technology standards for teachers*. Eugene, OR: Author
- The Millennium Project. (1999). *Pathways for preparing tomorrow's teacher's to infuse technology*. CFDA 84.342. Washington, DC: U.S. Department of Education.
- Miller, A., & Rademacher, J. (1996). *The star model for teaching and learning enhancement: A technology staff development project*. Grant award from Texas Education Agency.
- National Council for the Accreditation of Teacher Education. (1992). *Approved curriculum guidelines*. Washington, DC: Author.
- Rademacher, J. A. (2000). Involving students in assignment evaluation. *Intervention in School and Clinic*, 35(3), 151-155.
- Rademacher, J. A., Bridges, D., Hildreth, B. L., Walker, M., & Calahan, K. (1998). Enhancing the learning of preservice educators through student choice assignments. *Journal of Excellence in College Teaching*, 9(1), 13-28.
- Rademacher, J. A., Deshler, D. D., Schumaker, J. B., & Lenz, B. K. (1998). *The quality assignment routine*. Lawrence, KS: Edge Enterprises.
- Texas State Board of Education. (1994). *Texas teacher proficiencies*. Austin, TX: Author.
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