



Teacher Education for Virtual Schools

Niki Davis & Team
Iowa State University

Center for Technology in Learning and Teaching

With support from Rick Ferdig & Team
University of Florida

2007 Virtual Schooling Symposium



Teacher Education Goes into Virtual Schooling

<http://www.ctlit.iastate.edu/~vschool/index.html>

With the Universities of Florida and Virginia,
Graceland University & Iowa Learning Online

ISU is creating a national model for preservice
teacher education

- Future teachers prepared to facilitate VS
- Some graduates will be more aware as a VS
Teacher and/or VS Designer

Funded by US Department of Education FIPSE and collaborators



TEGIVS' 3 complementary strategies to take U.S. preservice teacher preparation into virtual schooling are:

1. Identifying and building competencies
2. Developing curriculum and tools to support virtual teacher education
3. Building a national community of VS practice



Key Roles Identified:

VS Site Facilitator: *Mentoring & Advocating*

Local mentor and advocate for student(s)
Proctors & records grades etc.

VS Teacher: *Pedagogy & Class Management*

Presents activities, manages pacing, rigor etc.
Interacts with students and their facilitators
Undertakes assessments, grading etc.

VS Designer: *Course Development*

Designs instructional materials
Works in team with teachers and a virtual school to
construct the online course etc.



Findings

Can VS be integrated in
preservice programs? **YES!**



Despite challenges VS implemented as:

- Secondary lab & lecture (4 hours)
- Elementary lab & lecture (4 hours)
- Field experience in VS (5 - 24 hours)
- Theme within course on Distance Education (45 hours)
- Unit in Instructional Design course (12 hours)
- Theme within a regular Methods course (12 hours)

In

- *4 preservice teacher education degree programs*
- *1 masters program for teachers*



Findings

Data from 294 future
teachers and 550 graduates



Evidence from usability studies and trials so far:

- Most graduated teachers without VS preparation are not competent to facilitate students in VS (64%)
- Most future teachers agree that VS is important to include in preservice teacher education
- TEGIVS resources can be effective in changing perceptions, as can experience in online learning
- A little field experience can increase confidence to facilitate students in VS (but not to teach VS)
- Preparing for VS instructional design is particularly challenging in preservice programs
- Adaptation into the rapidly evolving variety of preservice courses within programs is challenging, particularly in its rigorous evaluation

TEGIVS e.g. Scenario *Max takes Math from Hospital* in Lab Tool

Virtual Schooling Laboratory v.2

Lab Home Scenario 4 **Scenario 5**

Introduction
Scenario
Scene 1
Scene 2
Scene 3
Scene 4
Scene 5
Task
Explore
Resources

Online tutorial of the Florida Virtual School approach to the VS Site Facilitator

Video player controls: progress bar, play/pause, stop, next, previous, full screen, info.

[Next](#)

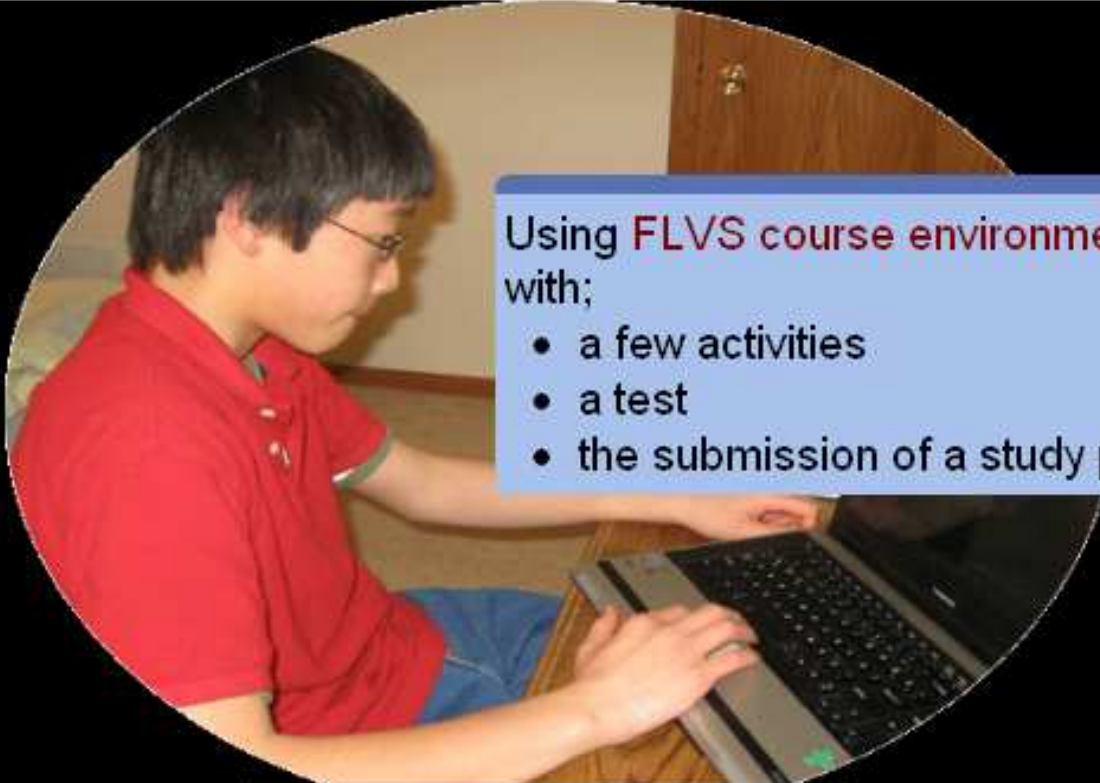
©2006 Teacher Education Goes into Virtual Schooling (TEGIVS)
Site Designer: Niki Davis, Ungli Yao, Jacob E. Larsen

TEGIVS e.g. Scenario *Max takes Math from Hospital* in Lab Tool

Virtual Schooling Laboratory v.2

Lab Home Scenario 4 **Scenario 5**

Introduction
Scenario
Scene 1
Scene 2
Scene 3
Scene 4
■ Scene 5
Task
Explore
Resources



Using FLVS course environment with;

- a few activities
- a test
- the submission of a study plan

Next

©2006 Teacher Education Goes into Virtual Schooling (TEGIVS)
Site Designer: Niki Davis, Lingli Yao, Jacob E. Larsen

TEGIVS e.g. FAQ with Iowa Learning Online lead teacher /mentor


IOWA STATE UNIVERSITY

Teacher Education Goes Into Virtual Schooling (TEGIVS)

TEGIVS Home
Objectives
Collaborators
Evaluation
Publications & Presentations
Newsletter
Photos

FIPSE
CTLT

Gail Wortmann FAQ



Gail Wortmann, Iowa's 2001 Teacher of the Year, is an outstanding leader in K-12 distance education or Virtual Schooling (VS) in Iowa. She currently teaches high school VS Anatomy and Physiology through Iowa Learning Online where she has helped to develop several VS science courses and mentor new VS instructors. Her VS Anatomy and Physiology course has also received the WebCT Exemplary Course Project 2005 award. In her 32 years of teaching, she has made many appearances across the U.S.

In Fall 2006, she was a guest speaker for the CI407 Distance Learning course at Iowa State University. See students. Below are some of her thoughts related to question to view her answer.

(To play the shockwave movies, click here to download and here for PCs.)

1. How did you get involved in virtual schooling and learning?
2. How will VS work for areas like foreign languages or speaking skills?
3. How does a VS teacher manage students working on their own?
4. How are the quarterly labs different from the way you would do them in a face-to-face classroom?
5. How do you contact with the students struggling or who are not participating?
6. How can VS meet the needs of special groups such as students with disabilities or those who are homebound?
7. When technology does not work the way it is supposed to, how do you handle it?
8. Why students like VS?
9. Is there an age where VS is not appropriate?
10. How VS can be useful for kindergarten teachers and students?
11. What are the differences between your online and face-to-face students?

m&m website for math classes: ongoing count of the different colors of m&m in the packages

real graphics can be drawn

visiting homeschooling websites can be helpful

How VS can be useful for kindergarten teachers and students?

Discussion Messages: 1.4 CONPTT Fishbowl

Compose message | Update listing | Search | Mark all as read | Message options

Display: All | Unread | Threaded | Unthreaded | Select topic: 1.4 CONPTT Fis

Status	Subject	Author
0/15	Fishbowl Discu	
	Fishbowl Discu	
	Re: Fishbowl D	
	Re: Fishbowl D	
	Re: Fishbowl D	
	Re: Fishbowl D	
	Re: Fishbowl Discussion	
	Re: Fishbowl Discussion	

results:

- posts are not overwhelming
- you can get through all the posts
- you can catch the missing parts
- have debriefing time to cover the missing parts

What is a good strategy for managing threaded discussions?

Website



<http://www.public.iastate.edu/~vschool/>

IOWA STATE UNIVERSITY

Teacher Education Goes Into Virtual Schooling (TEGIVS)



- [TEGIVS Home](#)
- [Objectives](#)
- [Curriculum](#)
- [Collaborators](#)
- [Teams](#)
- [Evaluation](#)
- [Publications & Presentations](#)
- [Newsletters](#)
- [Photos](#)
- [Copyright Forms](#)



About TEGIVS

Teacher Education Goes into Virtual Schooling (TEGIVS) is a national project leading preservice teacher education programs across the U.S. and the world. Its curriculum development and research prepare future teachers for the twenty-first century phenomenon of K-12 distance education (Virtual Schooling), through which all ages of students are learning from a teacher who is not located in their school. Students in all U.S. states are engaging in VS and the number is growing exponentially. A key to effective practice is teacher support in each student's location, thus, there is a pressing need to prepare all teachers for VS. TEGIVS will provide a model to incorporate VS in teacher education training for preservice programs across the U.S.

This web site was developed under a grant from the prestigious comprehensive program of the [Fund for the Improvement of Post Secondary Education \(FIPSE\)](#), U.S. Department of Education. However, these contents do not necessarily represent policy of the Department of Education, and no one should assume endorsement by the Federal Government. We also wish to acknowledge support from all participating organizations, particularly the Iowa State University [Center for Technology in Learning and Teaching \(CTLT\)](#).

TEGIVS News



[TEGIVS Retreats Focus Goals, Celebrates Achievements](#)



Conclusion



- This project has required a re-examination of the complexity of the professional development continuum, including preservice **(see survey on table)**
- The medium of delivery, the curricular resources, and the pedagogical strategies of implementation have all provided both affordances and constraints to professional development activities
- The lens of VS professional development promotes a deeper understanding of equity in teaching and learning
- Please join with our developing national community of practice to promote simultaneous renewal in preservice programs, K-12 schools, **and** Virtual Schools



TEGIVS Bibliography

- Davis, N.E. & Rose, Ray with NACOL Research Committee (2007). *Professional development for Virtual Schooling and online learning*. Vienna, VA: NACOL. <http://www.nacol.org> 22 pp
- Davis, N.E., Roblyer, M.D., Charania, A., Harms, C., Ferdig, R., Compton, L. & Cho, M.O. (2007). Illustrating the “Virtual” in Virtual Schooling: Challenges and Strategies for Creating Real Tools to Prepare Virtual Teachers. *The Internet in Higher Education*.
- Davis, N.E. & Niederhauser, D.S. (2007, April). New roles and responsibilities for distance education in K-12 education. *Learning and Leading with Technology*.
- Harms, C.M., Niederhauser, D.S., Davis, N.E., Roblyer, M.D., Gilbert, S.B. (2006). Educating educators for virtual schooling: communicating roles and responsibilities. *Electronic Journal of Communication*.
- Davis, N.E., and Roblyer, M.D. (2005). Preparing teachers for the “Schools that technology built”: Evaluation of a program to train teachers for virtual schooling. *Journal of Research on Technology in Education*, 37(4), 399-408.
- Davis, N.E., Niederhauser, D.S., Compton, L. & Lindstrom, D. (2005). *Good practice to inform Iowa Learning Online: Considerations for Developing Online Instruction and Virtual Laboratory Activities*. Retrieved September 12, 2005, from <http://projects.educ.iastate.edu/~vhs/index.htm>

Acknowledgements

- The contents of this presentation were partly developed under a grant from the Fund for the Improvement of Post Secondary Education (FIPSE), U.S. Department of Education. However, these contents do not necessarily represent policy of the Department of Education, and no one should assume endorsement by the Federal Government. We also wish to acknowledge support from all participating organizations.



*Project supported by US Dept of Education (FIPSE)
and partners*

Niki Davis

nedavis@iastate.edu

Iowa State University Center for Technology in Learning and
Teaching <http://ctlt.educ.iastate.edu>

Teacher Education Goes into Virtual Schooling
<http://www.public.iastate.edu/~vschool>