

ONLINE TEACHING AND CLASSROOM CHANGE

The Impact of Virtual High School on Its
Teachers and Their Schools

Dr. Susan Lowes
Institute for Learning Technologies
Teachers College/Columbia University
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Original Research Questions

- How, and in what circumstances, does **teaching an online course** affect (or not affect) an individual teacher's f2f teaching, and what are these effects?
- How, and in what circumstances, does **having teachers who teach both types of courses** affect (or not affect) the teacher's school as an educational institution, and what are these effects?
- How, and in what circumstances, does **having both f2f and online courses available in a school** affect (or not affect) the school, and what are these effects?

Studying Online Courses

- Focus has been on studying online and face-to-face classrooms as two separate worlds
- Focus was until recently comparative—which is better?
- More recent work is avoiding this “comparison trap” in order to look at each in its own terms
- Here we take a step beyond that and consider the online and face-to-face classrooms as one **social field** or “**space of possibilities**”

The “Trans-classroom” Teacher

- Each classroom—online and face-to-face--has its own constraints and affordances that lead to different practices
- Teachers who move back and forth between the two are “trans-classroom” teachers, much like trans-national migrants
- This research looks at the transformations, of teacher and of course, as the teacher moves—or migrates--from one classroom to the other

The Research Setting: Why Virtual High School?

- Offers many courses in many disciplines to many students in many schools, taught by many teachers
- Requires all teachers to take one of two professional development courses (called TLC and NIM)
- Emphasis in these courses is pedagogy, including problem-based learning, group work, authentic assessment, backward design

Methodology and Data Set

- Interviews to develop a survey
- Survey (online) to 464 current and former VHS teachers
- 215 responses, or 46% response rate overall:
 - 63% for those currently teaching
 - 27% for those no longer teaching
 - 10% for those not yet teaching
- Respondents fairly representative of entire population in terms of TLC/NIM graduation year and subject areas taught

The Survey: Looking at the Full Migration Path

- Converting or adapting a course for online teaching
- Teaching the online course
- Teaching face-to-face after teaching online

As well as

- Effect on school
- Thought questions (at end)

Teaching Face-to-Face After Online

What changed?

Who changed?

How much change?

Methodology

- A survey with 6 categories or areas of potential change
 - Course design/redesign
 - Course organization
 - Communication (teacher-to-student, student-to-student)
 - Assignments/assessments
 - Readings/resources
 - Multimedia (as teacher and with students)
- And 40 variables in those 6 categories
- Choices were on a 5-point Likert scale, ranging from Major changes (5) to No changes (1)
- Choices 3 – 5 were recoded as “At least some change”

The research population

- 74% of the respondents answered these questions = 158 teachers
- Overall, 75% reported that teaching online had had a positive impact on their face-to-face teaching
- Important point: some teachers did not make changes because they were already doing these things
- We are looking at those who reported that they affirmatively made changes, a subset of the whole

What changed?

- Changes made by at least 60% of respondents:

Course design/redesign is the major component of this list

- Changes made by between 40% and 60% of respondents

Transfer of strategies learned from teaching online
predominates

- Changes made by less than 40% of respondents

Areas where **fewer teachers can make changes**

Who changed?

- Took the 40 variables
- Gave a score of 1 to those who had made “At least some change” for each variable (3 – 5 on the Likert scale)
- Named these the Changers
- Totaled the 1s for each respondent to create a “change score”
- Minor Changers: Change scores from 1 – 20
- Major Changers: Change scores from 21 – 40

Differences Between Major and Minor Changers

- Major Changers were more likely to be Math, Science, Social Science, and Foreign Language teachers
- Minor Changers were more likely than Major Changers to have adapted existing VHS courses
- Major Changers were more likely than Minor Changers to have graduated earlier from TLC/NIM
- Minor Changers were more likely than Major Changers to have taught the same course face-to-face and online

Thought questions

Class participation

Independent learning

Questioning techniques

Metacognition/reflection

The research population

- 80% – 85% of the 158 who had taught face-to-face after teaching online responded to four open-ended questions
- About half described changes

Class participation

- “I am more aware of who is participating and who is not. I try to make more eye contact with those not as willing to participate, and to call on them to encourage them to participate more.”
- “I give a participation grade to my F2F students now where I didn't before on-line teaching.”
- “If anything, the online class requirements reinforced the understanding that all students need to participate in some way.”
- “I haven't changed much since I've always required participation, but I do keep track of that more religiously ...”

Independent learning

- “I took a stronger stand on independent learning and had higher expectations for my f2f students than I did before.”
- “I assume kids can get info on their own now, where before, I didn't. I felt like I needed to spoon feed them.”
- “Yes, I require that my f2f students work more independently and often use exemplars from my online class in my f2f. I give instructions and examples and then allow the students to work more independently.”
- “I think I've come to trust that kids can do more than I usually realize and that probably influences the way I design our learning time.”

Questioning techniques

- “I learned online that my questions have to be very clear and free of ambiguity.... My students are getting better questions.”
- “I think I have been able to ask direct questions or focus students on the topics more easily ... so they have less misunderstanding about concepts.”
- “I am much more detailed in my questions to make sure my students don't get confused. I also am better at asking follow up questions to get my students to dive deeper into the content and to think critically.”
- “I no longer accept short oral responses from my students.”

More on questioning techniques

- “My questioning techniques have become more along the line of reflection instead of just repeating back the factual information....”
- “I believe that I now ask more open-ended questions and I am more content to allow the students to search for their own responses ...”
- “I have been more aware of the extension questions that are asked online. I do spend more time with these types of questions in my f2f classes.”

Less lecturing, more facilitating

- “I think that I assume kids can get info on their own more now than before on-line teaching. ... I don't lecture much at all now, and when I do, it is usually to clarify things student have had to dig out on their own.”
- “I am more willing to act as a facilitator after teaching online. I am more willing to try not to control every aspect of the classroom....”
- “I have begun breaking assignments down into smaller chunks. ... as a result of teaching online I started thinking in terms of smaller bits.”

Metacognition/reflection

- “I allow more opportunities for students to reflect on their work and give me private assessments of the class/their own progress, i.e., private threads.”
- “More use of journals and reflective portfolios; this is something I knew I should do more of anyway but VHS has pushed this issue with me.”
- “I now require all students to respond in writing to a daily ‘exit question’ related to the day's work. My awareness of the role of reflection in learning has definitely increased since I began teaching my online course.”

More on metacognition/reflection

- “Tickets Out the Door concept... Students will summarize the day's activities in a TOD before they leave the classroom each day. This is very similar to a daily posting activity....”
- “Yes ... essentially I just cut out some of the busy work ... worksheets, needless vocab and writing assignments ... and made the assignments we do more meaningful and require more reflective thought.”
- “The discussions online also have the added benefit of a person going back and responding later. I now add this to my seminars by allowing students to return to a previous question if they have taken notes during a seminar.”

Effect on the School

Expanding range of offerings

Providing online experience

Fostering independence

Sharing ideas

Most often reported effects

- Expanded range of courses offered to students

“Virtual High School has transformed our school from a small, poor, school with few class offerings into a small, poor, school with a wide variety of class offerings.”

- Providing an opportunity for students to experiment with online environment

“Because I teach a course on-line, this allows students at my school to take on-line courses. This has resulted in a whole new way of learning for students at my school.”

Fostering independence

- “The students ... were challenged in ways that our school does not challenge. They learned to communicate and write better. They learned to be responsible for producing quality work.”
- “Yes, I have a cadre of students that feel like they are more mature and more responsible for their own learning. They feel more academically capable.”
- “[My students] also do generally pick a spirit of responsibility for their own learning that I, and most of my colleagues, have not been able to instill.”

Sharing ideas

- “I added ideas to our School Improvement Team from talking to other NIM students online.”
- “The other teachers incorporate more of the online process and backwards planning.”
- “I think I have been able to be an advocate for change because of what I have learned. Other teachers are giving layered curriculum a try, and as a staff we brainstorm ways of making students more accountable.”

Conclusions

More questions

More research

Questions

These results are suggestive but by no means definitive

- How much change is due to the constraints and affordances of the online classroom?
- How much change is due to professional development activities?
- How much is it the teacher's level of professional engagement (Becker and Riel 2000)?

More pragmatic questions

- Can we, and should we, find ways to encourage the development of more trans-classroom teachers?
- Can we, and should we, find ways to make nascent trans-classroom teachers more so?
- Can we encourage the migration of the more successful online pedagogies back into the face-to-face classroom?