References

Anderson, R. E., & Dexter, S. L. (2000). *School technology leadership: Incidence and impact* (6). Irvine, CA and Minneapolis, MN: Center for Research on Information Technology and Organizations. University of California, Irvine and University of Minnesota.

Banathy, B. H. (1968). *Instructional systems*. Belmont, CA: Fearon Publications.

Bates, A. W. (2000). *Managing technological change: Strategies for college and university leaders*. San Francisco: Jossey-Bass.

Beaudoin, M. (1990). The instructor's changing role in distance education. *The American Journal of Distance Education, 4*(2), 21-29.

Berman, P., & McLaughlin, M. (1976). Implementation of Educational Innovation. *Educational Forum, 40*(9), 345-370.

Berge, Z.L. 1998. Barriers to online teaching in post-secondary institutions: Can policy changes fix it. *Online Journal of Distance Learning Administration*. 1(2).

Betts, K. S. (1998). *Factors influencing faculty participation in distance education in postsecondary education in the United States: An institutional study.* Dissertation Abstracts International, 59(07), 2376. (UMI No. 9900013)

Betts, K. S. (1998). *An institutional overview: Factors influencing faculty participation in distance education in postsecondary education in the United States: An institutional study*. Online Journal of Distance Education Administration, 1(3). Retrieved July 13, 2001, from http://www.westga.edu/~distance/betts13.html.

Blackburn, R., & Lawrence, J. (1995). *Faculty at work, motivation, expectation, satisfaction*. Baltimore, MD: The Johns Hopkins University Press.

Blair, J. (2002). The virtual teaching life. Education Week. Available: http://www,edweek.org/sreports/tc02/article.cfm?slug+35virtual.h21 [2003, July, 11, 2003].

Burge, E. (1994). Learning in computer contexts: The learner's perspective. *Journal of Distance Education, 9*(1), 19-43. Retrieved July 13, 2001 from http://www.westga.edu/~distance/king32.html

Caldwell, S. D. (1997). *Professional development in learning centered schools*. Oxford, OH: National Staff Development Center.

Cameron, J., & Pierce, W. D. (1996). The debate about rewards and intrinsic motivation: Protests and accusations do not alter the results. *Review of Educational Research, 66*(1), 39-51.

Chaney, E. (2001). Web based instruction in a rural high school: A collaborative inquiry into effectiveness and desirability. *National Association of Secondary School Principals Bulletin, 85*(628), 20-29.

Chester, A. & Gwynne, G. (1997). Online teaching: The delights and dangers of pseudonymity. From Proceedings of Ed Media '97: World Conference on Educational Multimedia and Hypermedia. Calgary, Alberta, Association for the Advancement of computing in Education.

Clark, K. (2000). Urban middle school teachers' use of instructional technology. *Journal of Research on Computing in Education, 33*(2), 179-195.

Clark, T. (1993). Attitudes of American higher education faculty toward distance education: A national survey. *American Journal of Distance Education, 7*(2), 19-33.

Clayes, C., Feyton, C., & Levin, H. (1997). Europe's approach to new technologies in education: Government vs. industry (Version CD-ROM). Calgary: Advancement of Computing in Education.

Collins, M. & Berge. Z. (1995). (Eds.). Introduction: Computer-mediated communications and the online classroom in higher education. In Z. Berge and M. Collins (Eds.), Computer-mediated-communication and the online classroom: Vol. 2, Higher Education. (pp. 1-10). New Jersey: Hampton Press.

Cuban, L. (1984). *How teachers taught: Constancy and change in American classrooms 1890-1980*. New York: Longman.

Daigle, S. L., & Jarmon, C. G. (1996). Building the campus infrastructure that really counts. *Educom Review*, 35-38.

Davie, L. (1996). *Times of turbulence and transition in distance education: Needed research in computer-mediated communication course design.* Paper presented at the International Research Conference in Distance Education, Penn State University.

Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determinism*. Lexington, Mass: D.C. Heath (Lexington Books).

DeLoughery, T. J. (1995). Colleges ask if technology can cut costs, improve productivity. *The Chronicle of Higher Education*, A17.

Diamond, R. (1993). Instituting change in the faculty reward system. In R. Diamond & B. Adam (Eds.), *Recognizing faculty work: Reward systems for the year 2000* (Vol. 81, pp. 13-22). San Francisco: Jossey-Bass.

Dillon, C. L., & Walsh, S. M. (1992). Faculty: The neglected resource in distance education. *American Journal of Distance Education, 6*(3), 5-21.

Downes, S. (1998). *The future of online learning*. Online Journal of Distance Education Administration, 1, 3. Retrieved July 13, 2001, from http://www.westga.edu/~distance/downes13.html.

Dunham, T., Miller, J., Rubinyi, B., & Shaffer, D. (1996). *Collaborative information technology training: Program areas and technology support as partners.* Paper presented at the Leading Edge Training Technologies 4th Annual Conference and Trade Show, British Columbia.

eSchool News. (2002). Virtual schooling (December). Available: http://www.eschoolnews,com/resources/reports/virtual/2002/index.cfm [2003, August 24, 2003].

Feenberg, A. (1993). Building a global network: The WBSI experience. In L. Harasim (Ed.), *Global Networks* (pp. 185-198). Cambridge: MIT Press.

Finkelstein, M., Frances, C., Jewett, F., & Scholz, B. (2000). *Dollars, distance, and online education: The new economics of college teaching and learning*. Phoenix, AZ: Oryx.

Frantz, G. & King, J. (2000). The distance education learning systems model. *Educational Technology, May-June*, 33-40.

Freeman, H., & Ryan, S. (1997). *Webmapping: Planning, structuring, and delivering courseware on the internet.* Calgary: Association for the Advancement of Computing in Education.

Fullan, M. (1991). *The new meaning of educational change* (second ed.). New York: Teachers College Press.

Fullan, M. (2001). *The new meaning of educational change* (third ed.). New York, NY: Teachers College Press.

Garrison, D. R., & Shale, D. (1987). Mapping the boundaries of distance education: Problems in defining the field. *The American Journal of Distance Education, 1*(1), 7-13.

Gilbert, S. W. (1995). Teaching learning and technology. *Change, 27*(2), 47-52.

Gilbert, S. W. (1996). Making the most of a slow revolution. *Change*, *28*(2), 10-23.

Gellman-Danley, B. and Fetzner, M.J. 1998. Asking the really tough questions: Policy issues for distance learning. *Online Journal of Distance Learning Administration*. 1(1). (2/24/99)

Gold, S. (2001). A constructivist approach to online training for online teachers. *Journal of Asynchronous Learning Networks, 5*(1), 35-57.

Goodyear, P., Salmon, G., Spector, J. M., & Tickner, S. (2001). Competences for online teaching: A special report. *Educational Technology Research and Development, 49*(1), 65-72.

Gordon, D. T. (Ed.). (2000). *The digital classroom: How technology is changing the way we teach and learn*. Cambridge, MA: Harvard University.

Gottschalk, T. (1996). *Distance education at a glance*. The University of Idaho. Retrieved October 18, 2001 from Http://www.uidaho.edu/evo/dist1.html#What.

Gunawardena, C. N. (1990). Integrating telecommunication systems to reach distance learners. *The American Journal of Distance Education, 4*(3), 38-46.

Guskey, T. (2000). *Evaluating professional development*. Thousand Oakes, CA: Corwin Press.

Hall, G. E., & Hord, S. M. (2001). *Implementing change: Patterns, principles, and potholes*. Needham Heights, MA: Allyn and Bacon.

Harasim, L. (Ed.). (1990). *On-line education: Perspectives on a new environment*. New York: Praeger.

Harasim, L., Hiltz, S., Teles, L., & Turoff, M. (1995). *Learning networks: A field guide to teaching and learning online*. Cambridge: MIT Press.

Hargraves, A., & Fullan, M. (1998). *What's worth fighting for out there*. New York: Teachers College Press.

Hawkins, J., Grimaldi, C., Baker, T., Dyer, P., Moeller, B., & Thompson, J. (1996). Distance learning evaluation: Final report 1994-1995 Dutchess County, New York. *CCT Reports*(9), 49.

Hiltz, S. (1995). *The virtual classroom: Learning without limits via computer networks*. New Jersey: Ablex Publishing Corporation.

Holt, D. M., & Thompson, D. J. (1998). Managing information technology in open and distance higher education. *Distance Education, 19*(2), 197-227.

Hord, S. (1987). *Evaluating educational change*. New York: Croom Helm.

Hunter, W. (1997). *Computers in education: Wild speculations and sober thoughts*, [World Wide Web article]. Retrieved October 10, 2001 from http://www.ucalgary.ca/~hunter/Wild_Specs_.htm

Hussman, D. E., & Miller, M. T. (2001). *Improving distance education: Perceptions of program administrators*. Online Journal of Distance Learning Administration, 4, 1. Retrieved July 13, 2001 from http://www.westga.edu/~distance/ojdla/spring41/husmann41.html

Inglis, A., Ling, P., & Joosten, V. (1999). *Delivering digitally: Managing the transition to the knowledge media*. London: Koogan Page.

Innovations in Distance Education (IDE). (1995, October). *The report of a policy symposium distance education and the university culture, creating an administrative policy environment for distance education*: The Pennsylvania State University.

International society for Technology in Education (ISTE). (2001). Standards for Technology Facilitation. Available: http://cnets.iste.org/ncate/ [2003, August 24, 2003].

Jaffee, D. (1998). Institutionalized resistance to asynchronous learning networks. *Journal of Asynchronous Learning Networks*, *2*(2).

Kang, S. (2001). Toward a collaborative model for the design of web-based courses. *Educational Technology, March-April*, 22-30.

Kaufman, R., Watkins, R., & Guerra, I. (2001). The future of distance learning: Defining and Sustaining Useful Results. *Educational Technology, May-June*.

Kaye, A. (1989). Computer-mediated communication and distance education. In R. Mason & A. Kaye (Eds.), *Mindweave: Communication, computers, and distance education* (pp. 3-9). Oxford: Pergamon Press.

Kearsley, G., Lynch, W., & Wizer, D. (1995). The effectiveness and impact of online learning in graduate education. *Educational Technology, 35*(6), 37-42.

Keegan, D. (1986). *The Foundations of distance education*. London: Croom Helm.

King, J. W., & Bartles, K. B. (1996). *A review of educational characteristics of successful distance education efforts (CD-ROM)*. Atlanta, Georgia: University of Georgia Cooperative Extension Service: college of Agricultural and Environmental Sciences.

King, J. W., Nugent, G. C., Russell, E. B., Eich, J., & Lacy, D. D. (2000). Policy Frameworks for distance Education: Implications for Decision Makers. *Online Journal of Distance Learning Administration, 3*(2). Retrieved July 13, 2001 from http://www.westga.edu/~distance/king32.html

Kirby, E. (1998). *Administrative issues for high school distance education*. Online Journal of Distance Learning Administration, 1(2). Retrieved July 13, 2001 from http://www.westga.edu/~distance/Kirby12.html

Lepper, M., Keavney, M., & Drake, M. (1996). Intrinsic motivation and extrinsic rewards: A commentary on Cameron and Pierce's meta-analysis. *Review of Educational Research, 66*(1), 5-32.

Lesh, S. G., & Rampp, L. C. (2000). *Effectiveness of computer-based educational technology in distance learning: A review of the literature* (440 628): U.S. Department of Education.

Lewis, R. J. (1985). *Faculty perspectives on the role of informational technologies in academic instruction*. Washington D.C.: The Corporation for Public Broadcasting.

Litke, C. D. (1998). *Virtual schooling at middle grades: A case study*. Dissertation AbstractsInternational, 59(12), 4325. (UMI No. NQ34683)

Littleton, K., & Light, P. (1999). *Learning with computers*. London: Routledge.

Lockwood, F., & Gooley, A. (2001). *Innovation in open and distance learning: Successful development of online and web-based learning*. London: Kogan Page.

McPhillips, M. (1997). *Compensation for internet course development*. The Distnace Education Online Symposium listserve. Available: DEOSL@PSUVM.PSU.EDU.

Miliken Family Foundation (2003). Trends at a glance. Available: http://www.mff.org/edtech/article.taf?_function=detail&Content_uid1=275 [2003, August 24, 2003].

Moore, M. (1994). Administrative barriers to the adoption of distance education. *The American Journal of Distance Education, 8*(3), 1-4.

Moore, M. G., & Kearsley, G. (1996). *Distance education: A systems view*. New York: Wadsworth Publishing company.

Moskal, P., Martin, B., & Foshee, N. (1997). Educational technology and distance education in central Florida: An assessment of capabilities. *The American Journal of Distance Education, 11*(1), 7-22.

Murry, P. (1997). A rose by any other name. *CMC Magazine, January, 1997. Retrieved August 7, 2001 from* http://www.december.com/cmc/mag/1997/jan.

National Education Association (NEA) (2003). Guide to online high school courses. National education Association. Available: http://www.nea.org/technology/distanceed/highschool [2003, August 24, 2003].

Offir, B. (2000). Map for decision making in operating distance learning systems: Research results. *Education Media International, 37*(1), 11-15.

Olcott, D. J., & Wright, S. J. (1995). An institutional support framework for increasing faculty participation in postsecondary education. *The American Journal of Distance Education, 9*(3), 5-17.

Paloff, R. M., & Pratt, K. (2001). *Lessons form the cyberspace classroom: The realities of online teaching*. San Francisco: Jossey-Bass.

Parisot, A. H. (1997). Distance education as a catalyst for changing teaching in the community college: Implications for institutional policy. In C. L. Dilon & R. Cintron (Eds.), *Building a working policy for distance education*. San Francisco: Jossey-Bass.

Patterson, J. C. (2001). Bridging the gap between student and teacher. eSchool News. Available: http://www.eschoolnews.com/resources/reports/distance/ [2003, July 11, 2003].

Reich, R. B. (1991). *The work of nations: Preparing ourselves for 21st century capitalism*. New York: Alfred Knopf.

Rice, R. (1992). Contexts of research on organizational computer-mediated communication: a recursive review. In M. Lea (Ed.), *Contexts of computer mediated communication* (pp. 133-144). New York: Harvester Wheatsheaf.

Richards, I. (1995). *A study of computer-modem students:*. Paper presented at the American Educational Research Association, San Francisco.

RMC Research corporation (2003). Levels of technology use framework. RMC Research Corporation. Available: http://www.rmcdenver.com/useguide/cbam.htm [2003, August 24, 2003].

Rockwell, K., Furgason, J., & Marx, D. B. (2000). *Research and evaluation needs for distance education.* Online Journal of Distance Learning Administration, 3, 3. Retrieved August 8, 2001 from http://www.westga.edu/~distance/ojdla/fall33/rockwell33.html

Rockwell, K., Schauer, J., Fritz, S., & Marx, D. B. (1999). *Incentives and Obstacles Influencing Higher Education Faculty and Administrators to Teach via Distance*. Online Journal of Distance Learning Administration, 2(4). Retrieved August 8, 2001 from http://www.westga.edu/~distance/rockwell24.html

Rockwell, K., Schauer, J., Fritz, S., & Marx, D. B. (2000). *Faculty education, assistance and support needed to deliver education via distance*. Online Journal of Distance Learning Administration, 3(2). Retrieved July 13, 2001 from http://www.westga.edu/~distance/rockwell32.html

Rogers, P. L. (2000). Barriers to Adopting Emerging Technologies in Education. *Journal of Educational Computing Research, 22*(4), 473-479.

Russell, T.L. (1999). The no significant difference phenomenon. Office of Instructional Telecommunications: North Carolina State University.

Russo, A. (2001). E-learning everywhere. American Association of School Administrators. Available: http://www.aasa.oeg/publications/sa/2001 10/russo.htm [2003, July 11, 2003].

Saba, F. (1996). *Introduction to distance education*. Retrieved August 8, 2001 from Http://www.DISTANCE-EDUCATOR.com/intro.htm.

Schifter, C. (2000). Faculty participation in asynchronous learning networks: A case study of motivating and inhibiting factors. *Journal of Asynchronous Learning Networks, 4*(1).

Schrum, L. (1995). *Online courses: What have we learned.* Paper presented at the World Conference of Computers in Education, Birmingham England.

Sedlack, R. A., & Cartwright, G. P. (1997). Two approaches to distance education: Lessons learned. *Change, 29*(1), 55-56.

Sergiovanni. (1995). *The principalship: A reflective practice perspective*. Boston: Allyn and Bacon.

Sherry, L. (1996). Issues in distance education. *International Journal of Distance Education, 1*(4), 337-365.

Sparks, D. (1999). Try on strategies to get a good fit: An interview with Susan Loucks-Horsley. Journal of Staff Development, 20(3), 85.

Sparks, D., & Hirsch, S. (1997). *A new vision for staff development*. Alexandria, VA: Association for Supervision and Curriculum Development.

Steiner, V. (1997). *What is distance education*. Retrieved January 2, 2002 from http://www.uwex.edu/disted/definition.htm

Steinhart, K. (1988). Increasing faculty involvement in distance teaching. In D. Sewart & J. S. Daniel (Eds.), *Developing distance education*. Oslo: International Council for Distance Education.

Thomas, W. R. (2002). Considerations for planning a state virtual school: Providing web-based courses for K-12 students, [Internet]. SREB. Available: http://www.sreb.org/programs/Edtech/pubs/PDF/statevirtualschool.asp [2003, August 24, 2003].

TTSA. (2001). Technology standards for school administrators. TSSA Collaborative.

UCLA Center for Communication Policy (2003). Surveying the digital future: Year three. Available: http://www.ccp.ucla.edu [2003, July 11, 2003].

Vannatta, R. A., & Beyerbach, B. (2000). Facilitating a constructivist vision of technology Integration among education faculty and preservice teachers. *Journal of Research on Computing in Education, 33*(2), 133-145.

Verudin, J., & Clark, T. (1991). *Distance education*. San Francisco: Jossey-Bass.

Warren, R. (1997). *Professional development for distance education*. Retrieved June 20, 2001 from http://www.lucent.com/knowledge/archives

Wenzel, G. (1998). *Why school administrators need to know about distance learning: A college professor's perspective*. Online Journal of Distance Education Administration, 1(4). Retrieved July 13, 2001 from http://www.westga.edu/~distance/wenzel21.html

Willis, B. (Ed.). (1993). *Distance education: A practical guide*. Englewood Cliffs, NJ: Educational Technology Publishers.

Willis, B. (Ed.). (1994). *Distance education: Strategies and tools*. Englewood Cliffs, NJ: Educational Technology Publications.

Wolcott, L. L., & Betts, K. S. (1999). What's in it for me? Incentives for faculty participation in distance education. *Journal of Distance Education, 14*(2), 35-45.

Wolcott, L. L., & Haderlie, S. (1995, August). *The myth of dangling carrots: Incentives and rewards for teaching at a distance*. Paper presented at the 11th Annual conference on Teaching and Learning at a Distance, Madison, WI.

Wynne, S. (1997). *Open schools, open minds: An overview of virtual schooling in North America and Europe*. Vancouver, B.C.: Open School.

Yong, Y., & Wang, S. (1996). Faculty perceptions on a new approach to distance learning. *Journal of Instruction Delivery Systems, 10*(2), 3-5.

Appendix A:

Interview Structure

Interview Structure

PERSONAL DEMOGRAPHICS	PARTICIPANTS REMAINING	PARTICIPANTS EXITING
•Years of experience in education	•	•
•Years of experience with the district	•	•
•Subject Area Specialty	•	•
•Level of educational training	•	•
•Junior high or high school teacher	•	•
PERSONAL EXPERIENCE WITH TECHNOLOGY		
•Present level of classroom use	•	•
•Past technology training	•	•
•Personal perception of his/her comfort level with using new technologies	•	•
PERSONAL INTEREST IN THE TRAINING PROGRAM		
•Reasons for entering the program	•	•
•Reasons for remaining in the program	•	
•Reasons for exiting the program		•
•Were external rewards an influence in choosing the training	•	•
•If external rewards were greater would his/her participation in the training continue		•
•Level of involvement with staff development activities	•	•
•Were internal rewards an influence in choosing the program	•	•
•If internal rewards were greater would his/her participation in the training continue		•
•Influence participants felt this training would have on their classroom teaching	•	•
INFLUENCE OF BUILDING AND DISTRICT LEADERSHIP		
•Does the current building leadership model effective technology use	•	•
•Do participants feel the building leadership supports their work with educational technology	•	•

INFLUENCE OF BUILDING AND DISTRICT LEADERSHIP	PARTICIPANTS REMAINING	PARTICIPANTS EXITING
•Do participants feel that the online teaching will continue to receive resources and attention from the district administration	•	•
TRAINING PROGRAM		
•Did the training program meet participants needs	•	•
•Did the participants feel they acquired new skills and/or knowledge	•	•
•Did participants find the training worth the time/energy/ and investment they offered	•	•

Appendix B:

Interview Protocol for Instructors Remaining in the Online Course Development and Delivery Program

Interview Protocol:

Background:

IV Q: What career or educational paths brought you to teaching in Hopkins at the secondary level?

Probe:
…what prior teaching or educational experiences have you held?
…why does the secondary level appeal to you?

IV Q: Have you had experience teaching in other school districts?

IV Q: How many years of teaching experience do you have at this time?

IV Q: What is your highest level of educational training you have completed?

IV Q: What subject area discipline(s) are you licensed to teach?

IV Q: Have you had any personal online learning and/or teaching experiences prior to becoming a participant in the Hopkins online program?

INITIATION:

1. What influences a teacher's initial decision to learn more about developing online courses?

IVQ: As you think back on when you were initially introduced to the opportunity for learning more about online course development,

…what did you see as reasons to participate
…do you remember considering any reasons for not participating? If yes, what were those reasons?

Prompts:

a. Technology background, previous experience/competence
b. Content area expertise, match
c. People (colleagues, administrators, personal contacts)
d. Incentives, anticipated benefits (rewards, learning, pay, credits?)
e. Disincentives, anticipated challenges (time, loss, personal engagement with students)

IV Q: Describe your comfort level and use of instructional technology prior to the time the online opportunity was presented to you?

Prompts:

a. Classroom use
b. Course of study in college
c. Personal use
d. How did this become comfortable

TRAINING

2. What factors influenced the effectiveness of the training experience participants received to assist them with online course development?

IV Q: Describe the training you received for developing online courses.

Prompts:

a. Personalized or group learning
b. In computer lab or through manuals
c. Training on Saturdays or when you could do it during the day
d. Practice with the software and teaching

IV Q: As you think about the training you received,

…what were the more effective dimensions of this experience?
…what did not work well?
…what recommendations would you have for improving the training?

DEVELOPMENT

3. What factors influenced the effectiveness of the course development experience?

IV Q: How would you describe your online course development process?

Prompts:

a. Overall
b. Location completed
c. Time allotted
d. Materials used

IV Q: What part(s) of the process did you find most interesting and enjoyable?

Prompts:

a. Working with technology
b. Thinking about the course in a new light?
c. Modifying the course materials to be in an online environment
d. Others

IV Q: What part(s) of the process did you find most frustrating?

Prompts:

a. Uncertainty of how students would respond
b. Workload
c. Lack of material presented during training
d. Technology components required to do the development
e. Others

IV Q: As you think back on the training you received to assist you with course development,

….what aspects of the training were especially effective in helping you develop your online course?

…what elements of the course development experience do you feel could have been better addressed during the training portion of the program to assist you with your course development?

IV Q: How would you compare the workload between developing a new course that would be taught in a traditional manner in a classroom and developing a new online course?

COURSE IMPLEMENTATION

4. What influences the effectiveness of online course implementation?

IV Q: Tell me about the first time you implemented your online course

Prompts:

a. What did you do to prepare/get ready?
b. How did you introduce the course and use of online technology to students?
c. What technical support was necessary?
d. What were the most challenging parts of implementation?
e. What went well?
f. What would you like to have changed?
g. What occurred that you did not expect?

IV Q: If I were a teacher who just completed developing an online course and was about to implement it for the first time with a group of students, what would you recommend?

Prompts:

a. What should I do to prepare?
b. What "unexpected" situations should I plan on expecting?
c. How should I start the course?

IV Q: What new learning(s) do you feel you had during the teaching of your online course?

EFFECTS OF ONLINE COURSE IMPLEMENTATION

5. What are the perceived effects of online course instruction for students?

IV Q: Tell me how the students responded to online instruction?

Prompts:

a. Level of engagement
b. Amount of course mastery?
c. Interpersonal interactions with other students?
d. Interpersonal interactions with the instructor?
e. Attendance, assignments completed, quality of work

6. What are the effects of online course instruction for the participating teachers?

IV Q: What have you learned from this experience?

Prompts:

a. About online instruction?
b. About teaching/instruction in general?
c. About your own learning and growth?
d. About educational technology?
e. About your work in the traditional classroom setting?

IV Q: Has your experience with online instruction influenced how you teach, think about instruction in your traditional course?

Prompts:

a. Inclusion of educational technology in the classroom
b. Lesson design and/or delivery components?
c. Student interpersonal interactions?

CLOSING REFLECTIONS

IV Q: How do you envision the online instruction in the future of secondary education?

Prompts:

a. Level of student involvement?
b. Level of instructor participation?
c. Needed district resources?
d. Function of the teacher in the online environment?
e. Technologies that will be introduced?
f. Use of online learning in traditional classroom settings?

IV Q: What word or words would you choose to capture your overall reflections on your online course experience?

Appendix C:

Interview Protocol for Instructors Who did not Complete the Online Course Development and Delivery Program

Interview Protocol:

Background:

IV Q: What career or educational paths brought you to teaching in Hopkins at the secondary level?

Probe:
…what prior teaching or educational experiences have you held?
…why does the secondary level appeal to you?

IV Q: Have you had experience teaching in other school districts?

IV Q: How many years of teaching experience do you have at this time?

IV Q: What is your highest level of educational training you have completed?

IV Q: What subject area discipline(s) are you licensed to teach?

IV Q: Have you had any personal online learning and/or teaching experiences prior to becoming a participant in the Hopkins online program?

INITIATION:

1. What influences a teacher's initial decision to learn more about developing online courses?

IVQ: As you think back on when you were initially introduced to the opportunity for learning more about online course development,

…what did you see as reasons to participate
…do you remember considering any reasons for not participating? If yes, what were those reasons?

Prompts:

a. Technology background, previous experience/competence
b. Content area expertise, match
c. People (colleagues, administrators, personal contacts)
d. Incentives, anticipated benefits (rewards, learning, pay, credits?)
e. Disincentives, anticipated challenges (time, loss, personal engagement with students)

IV Q: Describe your comfort level and use of instructional technology prior to the time the online opportunity was presented to you?

Prompts:

a. Classroom use
b. Course of study in college
c. Personal use

d. How did this become comfortable

TRAINING

2. What factors influenced the effectiveness of the training experience participants received to assist them with online course development?

IV Q: Describe the training you received for developing online courses.

Prompts:

a. Personalized or group learning
b. In computer lab or through manuals
c. Training on Saturdays or when you could do it during the day
d. Practice with the software and teaching

IV Q: As you think about the training you received,

…what were the more effective dimensions of this experience?
…what did not work well?
…what recommendations would you have for improving the training?

IV Q: As you think about not developing an online course after the training was complete,

…what reasons did you have for not developing an online course after the training was complete?

Prompts:

a. Workload requirements
b. Amount of compensation received for the work
c. Lack of interest in the technology
d. Policies not in place
e. Perceived support from the district
f. Available resources

…were there supports that would have resulted in your choosing to continue with course development?

Prompts:

a. Additional financial reward

b. Leave time granted to do the work
c. Additional personal training
d. Stronger policies in place
e. More administrative/district support

DEVELOPMENT

3. What factors influenced the effectiveness of the course development experience?

IV Q: How would you describe your online course development process?

Prompts:
a. Overall
b. Location completed
c. Time allotted
d. Materials used

IV Q: What part(s) of the process did you find most interesting and enjoyable?

Prompts:
a. Working with technology
b. Thinking about the course in a new light?
c. Modifying the course materials to be in an online environment

IV Q: What part(s) of the process did you find most frustrating?

Prompts:
a. Uncertainty of how students would respond
b. Workload
c. Lack of material presented during training
d. Technology components required to do the development

IV Q: As you think back on the training you received to assist you with course development,

….what aspects of the training were especially effective in helping you develop your online course?

…what elements of the course development experience do you feel could have been better addressed during the training portion of the program to assist you with your course development?

IV Q: How would you compare the workload between developing a new course that would be taught in a traditional manner in a classroom and developing a new online course?

EFFECTS OF ONLINE COURSE DEVELOPMENT EXPERIENCE

4. What are the effects of online course instruction for the teachers?

IV Q: What have you learned from this experience?

Prompts:

a. About online instruction?
b. About teaching/instruction in general?
c. About your own learning and growth?
d. About educational technology?
e. About your work in the traditional classroom setting?

IV Q: Has your experience with online instruction influenced how you teach, think about instruction in your traditional course?

Prompts:

a. Inclusion of educational technology in the classroom
b. Lesson design and/or delivery components?
c. Student interpersonal interactions?

CLOSING REFLECTIONS

IV Q: How do you envision the online instruction in the future of secondary education?

Prompts:

a. Level of student involvement?
b. Level of instructor participation?
c. Needed district resources?
d. Function of the teacher in the online environment?
e. Technologies that will be introduced?
f. Use of online learning in traditional classroom settings?

IV Q: What word or words would you choose to capture your overall reflections on your online course experience?

Appendix D:

Participant Contact Letter

Participant Contact Letter from Online Learning Coordinator

Date

Dear

As a past or present participant in the Hillside Schools online learning initiative, you are invited to participate in a study. The purpose of the study is to examine the factors that influence faculty participation or nonparticipation in an online learning initiative in a secondary school.

You are being contacted because you have, at one time, been a member of some training and/or online teaching portion of the Hopkins initiative. As a past or present participant, this is an opportunity for you to help the online learning program gain valuable information that will be used to improve instructors' experiences in the online learning program. Nik Lightfoot is conducting this study. He is conducting the study in partial fulfillment of his Doctor of Education program in educational policy and administration through the University of Minnesota.

If you agree to be a part of the study, Nik would need to schedule an hour of time with you to complete an individual interview that would gain information about your experience in the Hopkins online program.

Enclosed, you will find a postcard. Please return the postcard to Nik once you have made the decision on your participation. Informed consent forms and letters introducing the study will be sent to you once your participation is confirmed. Nik will also contact you via e-mail or phone to give you more details of the study and provide an opportunity for you to ask further questions should you have any.

Your insight into your experiences with the online program will, again, be very helpful in providing important information and feedback about the efforts of the online initiative. This is a great opportunity to share your perspectives with other professionals and assist us with making our online program even stronger.

Sincerely,

Online Learning Program Coordinator

Appendix E:

Return Postcard from Participants

N. Lightfoot
10 Hwy 9
Hillside, MN 55000

Nik Lightfoot
Educational Services Center
10 Hwy 9
Hillside, MN 55000

Your prompt reply is appreciated. You may also send your response via e-mail. Thank You!

☐ Yes, I wish to participate. Please contact me with additional information on the study.

☐ No, I do not wish to participate in the study

Name:_____

School:_____

Phone number to best reach you__(_____)_____-_____

Researcher: Nik Lightfoot e-mail: nik_lightfoot@Hillside.k12.mn.us
Educational Services Center phone:

Appendix F:

Participant Informed Consent Form

Influencing Factors on Teacher participation in a Secondary Online Learning Program

PARTICIPANT CONSENT FORM

Background:
You have been invited to participate in a study that focuses on the influencing factors of teacher participation or nonparticipation in secondary online learning programs. As a past or present participant in the program, you were offered the opportunity to participate in this study. I ask that you read the following information and ask any questions you may have before agreeing to be in this study.

Purpose:
The purposes of this study are to determine influencing factors in faculty participation of an online learning program. Findings from the study will be used to provide others with information about the factors that hider or enhance faculty participation in present or future online learning initiatives.

This study is being conducted by: Nik Lightfoot, a doctoral student in the department of Educational Policy and Administration at the University of Minnesota.

Study Procedures:
If you agree to be in this study, I would ask you to:

1. Participate in an individual interview during the Fall or Winter of the 2002-2003 school year at a date and time that are convenient for you.
    a. The interview would take between 1-2 hours. I would like to audiotape the interview for assistance with transcribing the information after the interview is complete.
    b. Audiotaping is not a requirement for participation. You will be asked prior to the interview if you would agree to allow me to audiotape the interview, and you may decline to have it taped should you so choose.
    c. The transcript and notes taken by the interviewer will only be available to Nik Lightfoot and Jennifer York-Barr, the advisor to the study No one else will have access to the data and your responses will be kept anonymous.
2. Check transcripts of your interview for accuracy and clarity.
3. If needed, participate in follow-up phone calls or e-mails to clarify any information collected during the study.

Risks and Benefits of Being in the Study:
As mentioned, the information you provide will only be available to the researcher and his advisor. Information from each interview will be analyzed to determine overall findings. Findings will be written up as a part of a doctoral dissertation. Although your responses are anonymous, it is possible that some individuals in the community may be aware this study was conducted.

A major benefit to participation is an opportunity to reflect on your experiences and provide information that will assist program coordinators in making changes to the program that will increase its effectiveness with instructional faculty. When individuals choose not to participate, that perspective is absent from the overall analysis.

Confidentiality
The records of the study will be kept private. In the write up of the dissertation, I will not include any information that will identify any individuals who have participated in the study. Research records and transcripts will be kept in a secure, locked area, and only the researcher will have access to the records and transcripts. After transcripts are made of the taped interviews, the tapes will be erased.

Voluntary Nature of the Study
Your decision to participate will not affect your current or future relations with the Hopkins School District or the University of Minnesota. If you decide to participate, you are free to withdraw at any time without affecting those relationships.

Contacts and Questions:
The primary researcher conducting the study is Nik Lightfoot. The advisor for this dissertation study is Dr. Jennifer York-Barr. You may ask any questions you have now.

If you have any additional questions at another time, you may contact Nik Lightfoot via U.S. mail at 1001 Hwy 7, Hopkins, MN 55343, by phone at 952-988-4187, or via e-mail at nik_lightfoot@hopkins.k12.mn.us .

You will be given a copy of this form to keep for you records.

Statement of Consent:

I have read the above information. I have asked questions and have received sufficient answers. I consent to participate in the study.

Signature_____ Date_____

Signature of Investigator_____ Date_____

I also give my consent to be audiotaped during the interview and understand that a written transcript will be developed after the interview is completed.

Signature_____ Date_____

Appendix G:

LoTi and CBAM Framework

Table 5

LoTi and CBAM Framework

Level	CBAM Level	CBAM Description	LoTi Category	LoTi Description
CBAM and LoTi: 0	Nonuse	State in which the user has little or no knowledge of the innovation, no involvement with the innovation, and is doing nothing toward becoming involved.	Nonuse	A perceived lack of access to technology-based tools or a lack of time to pursue electronic technology implementation. Existing technology is predominantely text-based (e.g., ditto sheets, chalkboard, overhead projector).
CBAM and LoTi: 1	Orientation	State in which the user has recently acquired or is acquiring information about the innovation and/or has recently explored or is exploring its value orientation and its demands upon user and user system.	Awareness	The use of computers is generally one step removed from the classroom teacher (e.g., it occurs in integrated learning system labs, special computer-based pull-out programs, computer literacy classes, and central word processing labs). Computer-based applications have little or no relevance to the individual teacher's instructional program.
CBAM: 2; LoTi: 2	Preparation	State in which the user is preparing for the first use of the innovation.	Exploration	Technology-based tools serve as a supplement (e.g., tutorials, educational games, simulations) to the existing instructional program. The electronic technology is employed either for extension activities or for enrichment exercises to the instructional program.
CBAM:	.	.	Infusion	Technology-based tools including databases,

no equivalent; LoTi: 3				spreadsheets, graphing packages, probes, calculators, multimedia applications, desktop publishing, and telecommunications augment selected instructional events (e.g., science kit experiments using spreadsheets or graphs to analyze results, telecommunications activities involving data sharing among schools).
CBAM: 3; LoTi: 4a	Mechanical Use	State in which the user focuses most effort on the short-term, day-today use of the innovation with little time for reflection. Changes in use are made more to meet user needs than client needs. The user is primarily engaged in a stepwise attempt to master the tasks required to use the innovation, often resulting in disjointed and superficial use.	Integration (mechanical)	Technology-based tools are mechanically integrated, providing a rich context for students' understanding of the pertinent concepts, themes, and processes. Heavy reliance is placed on pre-packaged materials and sequential charts that aid the tacher in the daily operation of the instructional curriculum. Technology (e.g., multimedia, telecommunications, databases, spreadsheets, word processing) is perceived as a tool to identify and solve authentic problems relating to an overall theme or concept.
CBAM: 4a; LoTi 4b	Routine Use	Use of the innovation is stabilized. Few if any changes are being made in ongoing use. Little preparation or thought is being given to improving innovation use or its consequences.	Integration (routine)	Teachers can readily create integrated units with little intervention from outside resources. Technology-based tools are easily and routinely integrated, providing a rich context for students' understanding of the pertinent concepts, themes, and processes. Technology (e.g., multimedia, telecommuications, databases, spreadsheets, word processing) is perceived as a tool to identify and solve authentic problems relating to an overall theme/concept.

CBAM: 4b; LoTi 5	Refinement	State in which the user varies the use of the innovation to increase the impact on clients within immediate sphere of influence. Variations are based on knowledge of both short- and long-term consequences for clients.	Expansion	Technology is extended beyond the classroom. Classroom teachers actively elicit technology applications and networking from business enterprises, governmental agencies (e.g., contacting NASA to establish a link to an orbiting space shuttle through the Internet), research institutions, and universities to expand student experiences directed at problem solving, issues resolution, and student activism surrounding a major theme or concept.
CBAM: 5; LoTi 6	Integration	State in which the user is combining own efforts to use the innovation with related activities of colleagues to achieve a collective impact on clients within their common sphere of influence.	Refinement	Technology is perceived as a process, product (e.g., invention, patent, new software design), and tool for students to use in solving authentic problems related to an identified real-world problem or issue. In this context, technology provides a seamless medium for information queries, problem solving, and product development. Students have ready access to and a complete understanding of a vast array of technology-based tools to accomplish any particular task.
CBAM: 6; LoTi: no equivalent	Renewal	State in which the user re-evaluates the quality of use of the innovation, seeks major modifications of or alternatives to present innovation to achieve increased impact on clients, examines new developments in the field, and explores new goals for self and the system.		

Appendix H:

ISTE Technology Facilitator Standards

Table 6

ISTE National Educational Technology Standards for Administrators

I. Technology Operations and Concepts

Educational technology facilitators demonstrate an in-depth understanding of technology operations and concepts.

II. Planning and Designing Learning Environments and Experiences

Educational technology facilitators plan, design, and model effective learning environments and multiple experiences supported by technology.

III. Teaching, Learning, and the Curriculum

Educational technology facilitators apply and implement curriculum plans that include methods and strategies for utilizing technology to maximize student learning..

IV. Assessment and Evaluation

Educational technology facilitators apply technology to facilitate a variety of effective assessment and evaluation strategies.

V. Productivity and Professional Practice. Educational technology facilitators apply technology to enhance and improve personal productivity and professional practice.

VI. Social, Ethical, Legal, and Human Issues. Educational technology facilitators understand the social, ethical, legal, and human issues surrounding the use of technology in P-12 schools and assist teachers in applying that understanding in their practice.

VII. Procedures, Policies, Planning, and Budgeting for Technology Environments. Educational technology facilitators promote the development and implementation of technology infrastructure, procedures, policies, plans, and budgets for P-12 schools.

VII. **Leadership and Vision.** Educational technology facilitators will contribute to the shared vision for campus integration of technology and foster an environment and culture conducive to the realization of the vision

Appendix I:

Participant Response Totals By Coding Node

Table 7

Participant Response Totals by Coding Node

Interview Topic *Node Title*	All Participants N=21	Full participants N=9	Partial Participants N=12
Demographics			
Gender	M=4 F=17	M=3 F=6	M=1 F=11
Highest academic degree earned	Bachelor=3 Master=15 Doctoral=3	Bachelor=0 Master=7 Doctoral=2	Bachelor=3 Master=8 Doctoral=1
Experience in one or multiple districts	One=6 Multiple=15	One=4 Multiple=5	One=2 Multiple=10
Prior professional work before teaching	Yes=5 No=16	Yes=2 No=7	Yes=3 No=9
Years of teaching experience	00-09=6 10-19=7 20-29=4 30-39=4	00-09=3 10-19=5 20-29=0 30-39=1	00-09=3 10-19=2 20-29=4 30-39=3
Area of teaching licensure	English=8 Guidance=1 Health=2 Math=1 Reading=2 Science=5 Social Studies=2 Special Ed.=5	English=2 Guidance=0 Health=1 Math=0 Reading=0 Science=4 Social Studies=2 Special Ed.=1	English=6 Guidance=1 Health=1 Math=1 Reading=2 Science=1 Social Studies=0 Special Ed.=4
Prior experience In online teaching	Yes=2 No=19	Yes=2 No=7	Yes=0 No=12

Interview Topic *Node title*	All Participants N=21	Full participants N=9	Partial Participants N=12
Reasons for participating			
Innovative program	8	6	2
Competitive Advantage	1	1	0
Technology interest	6	3	3
Fresh Approach to Instruction	6	4	2
Reach more students	9	2	7
Flexible schedule	2	1	1
Personal (hearing impared)	1	0	1
Reasons for not participating			
No reason offered	6	3	3
Time demand	11	6	5
Loss of student contact	1	1	0
Equipment concerns	1	0	1
Competition with peers	1	0	1
Negative feedback from colleagues	1	0	1
Compensation	1	0	1
Time needed to develop familiarity with new technology			
Little if any training needed	10	5	5
Some training or minimal assistance	8	4	4
Large amounts of training (great fear)	3	0	3

Interview Topic *Node Title*	All Participants N=21	Full participants N=9	Partial Participants N=12
Prior use of educational technology			
Basic	6	2	4
Advanced basic	8	2	6
Advanced	3	2	1
Expert	3	2	1
Type of primary training experience			
Small group	14	6	8
Individual	7	3	4
Personal exploration	3	2	1
Outside course	3	2	1
Effective training components			
Instructor	12	4	8
Hands-on	10	6	4
Existing curriculum	4	4	0
Peer support	1	0	1
Safe environment	3	0	3
Instructor modeling	2	0	2
Technology breakdowns	1	0	1
Ineffective training Components			
Lack of time to incorporate training	6	2	4
Software switch	2	1	1
Web page guide	2	0	2
Too much presentation	3	3	0
No existing curriculum	4	0	4
Pace too fast	1	0	1
Trouble with development partner	1	0	1

Interview Topic *Node Title*	All Participants N=21	Full participants N=9	Partial Participants N=12
Suggestions for training improvement			
Increase mentorship	6	2	4
Increase accountability	8	4	4
Keep similar software	2	1	1
More hands-on modeling	2	0	2
Require partners	1	0	1
Require and screen existing curriculum	1	1	0
Course development process description			
Built from existing curriculum	10	7	3
Extensive planning	7	5	2
Time consuming	4	3	1
Work intensive	2	2	0
Web search	9	2	7
Negative descriptor	1	1	0
Enjoyable aspects of course development			
Learning instructional delivery techniques	8	3	5
Learning additional course content	8	5	3
Greater appreciation for traditional course	2	2	0
Seeing the end product	1	1	0
Work with colleagues	5	1	4
Push boundaries of personal achievement	2	1	1

Interview Topic *Node Title*	All Participants N=21	Full participants N=9	Partial Participants N=12
Frustrating aspects of course development			
Constant revision	6	6	0
Time intensive	4	3	1
Solitary	1	1	0
Simultaneous course/curriculum development	3	0	3
Program status	2	0	2
Workload comparison			
Equal	4	3	1
Greater	9	3	6
Far greater	8	3	5
Online course implementation description			
Description of stressful situations	3	3	NA
Description of change in student understanding	7	7	NA
Mention of adjudicated youth	4	4	NA
Advice for new online instructors			
Expect failures	2	2	NA
Make frequent student contacts	8	8	NA
Plan ahead	1	1	NA
Get online experience	1	1	NA
Notice student differences	1	1	NA
Strong curriculum	1	1	NA

Interview Topic *Node Title*	All Participants N=21	Full participants N=9	Partial Participants N=12
Reasons for not completing the program			
Personal equipment	2	NA	2
Uncertain program funding/longevity	3	NA	3
Not enough development time	8	NA	8
More personal initiative	2	NA	2
Compensation	1	NA	1
Accountability	1	NA	1
Personal circumstances	2	NA	2
Not a style fit	2	NA	2
Supports that would assist program completion			
Additional time for course development	6	NA	6
More collegial support	4	NA	4
Additional compensation	3	NA	3
Better personal equipment	2	NA	2
Advice for new online course developers			
Collaborate	3	NA	3
Involve students	1	NA	1
Be comfortable with technology	2	NA	2
Get online experience	3	NA	3
Get more time	2	NA	2

Interview Topic *Node Title*	All Participants N=21	Full participants N=9	Partial Participants N=12
Perceived effects of online instruction for students			
Reduced behavior management	2	2	NA
Different type of class participation	7	7	NA
Credit make-up vs. traditional success	4	4	NA
Perceived effects of participationin the online course development program			
More technology use	5	2	3
Increase in curriculum materials	9	4	5
Change in instruct. design practices	3	3	0
Use of online units to assist absent students	2	2	0
New mode of success for some students	6	3	3
Personal growth	9	4	5
Future of online learning programs			
Continuing, but funding dependent	15	7	8
Expanding	16	6	10
Limits	3	1	2
Rural appeal	2	2	0
Collaborative with other districts	4	3	1