Appendix 2: A grid of studies on technology in social work education from 1984 to 2002

Author	Type of Technology	Role of Technology	Design	Outcome Measures	Limitations	Sample	Conclusions
1) Weinbach, Gandy & Tartaglia, 1984	Interactive closed circuit TV	Courses taught off campus at 19 sites	pre- and posttest of faculty and posttest of students	Pre- and posttest of faculty attitude and posttest of student attitude	Off-site, part-time students, taking course for convenience or no choice for onsite Descriptive design of attitudes	Faculty (N=5) 162 students (N=162) 1st year MSW courses excluding methods	Increased positive attitude of faculty although preferred traditional onsite teaching Satisfactory/positive experience for part-time offsite students
2) Finnegan & Ivanoff, 1991	Computers for word processing	Lectures on computer use (word processing).	Nonequivalent comparison group pretest posttest	Pre- and posttest instrument on interest in, use of, and attitudes toward computers.	No random assignment. Treatment-group interaction, History. Maturation.	First year MSW students (N=36), 2 sections Introduction to Social Work Practice. N= 17 (training) & N=19 (comparison).	Students in both groups increased computer use. Students said they would use computers in the future. Non-significant differences between the two groups.
3) Maypole, 1991	Interactive video disks	N/A	Survey of interest of 96 MSW programs	Mail out questionnaire Use of videodisk in social work education	Survey/snapshot	59/96 graduate programs	2/59 programs using interactive videodisks. Most programs interested in using video disks but concerned about funding to purchase or produce disks as well as faculty technical expertise
4) Kelley, 1993	Interactive Television via satellite or microwave	ITV Lecture of 3 practice, 1 policy and 1 theory	Nonequivalent comparison group	Discontinuance of enrolment Student satisfaction	Large classes, Uneven exposure to professors, Problems with	N=297 (over five MSW courses over three semesters), 5	Rather poor evaluations though improvement with time after bugs worked out. Poorer evaluations for

		course One off-site facilitator for an offsite class	design, pre-, mid- and posttest	Evaluations at pre-mid-and end of course	technology	courses over 3 semesters, advanced practice, policy, and theory class	practice courses than for policy and theory. More positive for offsite students (for pragmatic reasons) Electronic teaching unable to replace faculty -- on site instructor necessary.
5) Seabury & Maple, 1993	Interactive Video Disk	Computer-assisted instructional programs using interactive videodisks Was it adjunct or stand-alone class?	Research design not described, presumably a descriptive design of students in each of the classes over a 3-4 year period.	Student reactions to 2 computer assisted instructional programs and 2 interactive video disk programs. Questionnaire administered to students.	Number not completing questionnaire not reported The learning program was not described. Study over 4 years and course fidelity not assured	Education level not specified Used in Introduction to Interpersonal Goal-focused Interviewing (N=79), Crisis Counseling (N=51) and Group Treatment (N= 36 students) classes N=385 over 3 to 4 yrs	84% thought they could take skills into practice 61% reported that course was facilitated by computer format 95% for the Goal-focused Interviewing disk reported learning about interviewing skills 94% of those in Crisis Counseling program reported that interest increased 98% said that method of instruction helped them pay attention to concepts 91% of Group Treatment students said it facilitated learning
6) Latting, 1994	Email	Email to supplement class.	Posttest attitudinal survey	Student email use, achievement motivation (questionnaire), accessibility of computer resources outside school, prior contact with instructor	Small N Descriptive design	18 MSW students Organizational Theory	Initial resistance to use of computers and emails due to technological problems. Students concerned about unequal access to computers.

7) Petracchi & Morgenbesser, 1995	Videotape and 1-way TV aired over public TV. Students outside broadcast area mailed tapes	Videotape of 1987 class given to 1991 distance students. Not designed for interaction with instructor for optimal learning!	Descriptive, post hoc, non equivalent comparison group	A *similar* closed-ended, multiple choice mid-term and final examinations measuring recall/rote learning	Unable to compare demographics. Grades and statistics not provided. Recall learning measured. Course offered 4 years apart. Outcomes similar, not exact. Distance students could replay lectures	Drug and alcohol abuse course delivered as continuing education. Three groups of upper division undergraduate students: traditional on-campus (N=214) in 1987, distance (N=248) in 1991	Distance students who viewed videotape did better than traditional students All students showed statistically significant improvement in learning between mid-term and final exams Learner independence and motivation significantly related to learning Distance students could re-play lectures Need more rigorous evaluations of knowledge and participant learning Need for controlled study
8) Folaron, 1995	Email in a practice class	Adjunct to class lectures, students to post 16 email messages to other students.	Posttest	Weekly email messages re. how students perceived the lectures and activities; Feedback on email experience; Instructor perceptions	Descriptive study	BSW practice course, N=24.	Students enjoyed experience. Need for faculty feedback decreased because students gave others feedback. Students became involved in course material; students increased efforts in completing reading assignments.
9) Morgan, 1996	22 hrs of teaching use of SW Information and IT in lab	Taught word processing skills, use of email	Structured 30 minute interview post	Attitudinal scale conducted by face-to-face student interviews on how IT felt and how it impacted them	Social desirability Descriptive design Outcome measure on attitude not learning	1st year diploma students in the UK (N=35)	Students positive about learning word processing skills and email use in a computer lab.

					outcomes		
10) Thyer, Polk, & Gaudin, 1997	ITV	18 students exposed to televised instruction and live teaching	Post course assessment of appraisals of the instruction. Comparison group	Biner's (1993) standardized instrument evaluating attitudes	Small sample size Attitudes measured but not achievement Convenience sample	MSW Child Welfare course N=11 main campus (3 live sessions) N=9 distant campus (5 live sessions)	Live instruction rated significantly higher than distance learning for class quality Distance learning technology has potential for augmenting social work education, it has not yet demonstrated comparable outcomes in terms of student learning
11) Forster & Rehner, 1998	ITV Presumably main campus and remote site connected via ITV.	Sole medium for 6 courses in remote site, 18 hours out of a 60-hour curriculum. On-campus students got "75%" in person.	Nonequivalent comparison group design. Unclear if on-campus students on receiving end of ITV occasionally. Six courses compared posttest.	Students' final grades, Semi-structured interviews with 3 faculty and 14-item student feedback survey.	No standard deviations given. Grades a problem due to possible grade inflation. Confounds to outcomes by group – only way remote students could get classes was ITV. Mixed formats for both groups. Social desirability. Researcher bias. Groups not equivalent. Convenience sample	Part time MSW students (N=18). Connected with between 26 and 4 on-campus students. Remote site students working full time and older. Course included HBSE, Policy, Practice, Diversity, Research, Field, Families, Groups, & Communities	No significant differences in grades. Traditional students had slightly higher grades. Remote students had difficulty sustaining attention. Students said learning compromised with technology. Instructors said learning objectives met. Remote students rated instructional effectiveness better than on-site students. Problems covering material due to technical difficulties. Faculty reported ability to engage "casually" and "spontaneously" with remote students severely constrained. No students said ITV improved interaction. On-site student interaction same, on-site to ITV student interaction "strained." No student considered ITV environment better. ITV students

							disadvantaged in student-student and teacher-student interaction. Polarization and antagonism between two groups. Conclusion: The education was comparable. Remote students understood necessity of technology; on-site students did not. ITV is "educational nuisance to be endured."
12) Freddolino, 1998	ITV (compressed video).	Half way through the program, usually class sent from main campus, but could originate in remote sites	Nonequival ent comparison group. Two part time distance MSW programs compared with on-site. In-class adjunct faculty member posted at each site.	Structured open-ended telephone interviews looking at demographics, motivation for entering program, how well ITV working, knowledge and use of technology	Preliminary report Program not completed at publication.	2 remote sites (N=41 & 37), on-campus (N=37), the whole range of MSW level course taught on site as well by ITV to the two remote sites	On campus and remote site students entered program for different reasons. Remote students noted close and convenient location of their program. Most positive thing about ITV is it allowed students to get an education off campus. Limitations: not having professor on-site; time delays and tech glitches, especially audio; deterred class participation, lack of human contact, discomfort with camera. Conclusion: viable alternative to the traditional program but not the "preferred option." On-site students did not believe they should make sacrifices to technology.
13) Miller-Cribbs & Chadila, 1998	Internet assignment	Students given internet assignment:	Survey	Basic survey of agreement and disagreement of evaluation	No choice of alternative assignment given Descriptive and	Over four courses in Human Diversity (N=60). Level not	Overall, students liked assignment of searching for a website on diversity topic and gathering information from it.

		to find web site.		questions	anecdotal	specified	Felt the internet allowed greater access to more current information.
14) Patchner, Petracchi & Wise, 1998	Traditional class and simultaneous broadcast ITV to remote site	The instructor once reversed the class, teaching from the remote site	Pre and posttest comparison group design	Multiple choice exam on research knowledge Scale about attitudes towards research Scale assessing attitudes towards ITV	Convenience sample Small N; Groups not equivalent; low statistical power	MSW Research Methods, face-to-face students (N=13), ITV students (N=8) ITV students all part-time	No difference in outcome measure of research knowledge gained Face-to-face students scored better on all the measures – face-to-face scored better on midterm. ITV students would have preferred face-to-face instruction yet ITV acceptable if no access to face-to-face. Traditional class full of ITV equipment and instructor talked to equipment
15) Petracchi, 1998	Large lecture course compared to videotapes of course delivered to distance students	Instructor and teaching assistant available to distance students, but not reported how they were used	Post-hoc comparison group design of 2 groups in classes offered 4 years apart. Seems same as Pettrachi & Morgenbesser (1995)	Learning measured by mid-term and final examination, measured as rote/recall ability.	No RA; Large lecture class of 214 students compared to watching videotape of same large lecture (N=248). (Both androgogy). Face-to-face taught in 1987, distance in 1991. No demographics	Substance abuse class. 462 BSW students divided nearly evenly between one large lecture class and one course viewing videotapes of studio-filmed broadcasts of the above course	Distance students preformed better on both mid-term and final examinations Distance students found it helpful to replay videotapes as often as they wished to learn the material Problems with lack of opportunities for students to interact with instructor not only in large lecture format but more so for distance students Sounds like the same study as Petracchi and Morgenbesser (1995)
16) Siegel, Jennings,	Distance education in	N/A	Survey of programs to	Survey of accredited	Survey design Snapshot picture	429 undergraduate	41 in distance learning, large public institutions most

Conklin, & Flynn, 1998	programs		determine use of distance learning	social work programs between1995 and 1996 Assess current usage of distance learning in social work 28-question instrument: types of distance ed offered, duration of use, courses offered, training and selection, demographic information	Descriptive	and graduate social work programs in US surveyed, 259 responses returned (60% response rate)	frequent users. 39% combined programs, 1.5% BSW and 10 MSW; 22% had plans Problems: adaptation of instructional materials, faculty preparation, faculty interest, student adjustment, scheduling, institutional support, study-faculty contact Reasons for not: no need, lack of technological resources, lack of faculty training resources Systems used: satellite transmission (42%), television, compressed video Courses: HBSE (51%), Policy (46%), Research (37%), Methods (24%), seminars for field instructors. [non-interactional courses] "The predisposition in social work education that we cannot or should not offer practice or field integration seminar courses via distance…" (p. 4/10) Selection of faculty: 33% faculty appointed and 76% volunteered (76%), 68% used second person at receiving site; 54% of instructors given additional prep time Barriers: costs, philosophic (how much lost in perceived

							quality of classroom interaction), potential socialization of students, and relationship with instructor as mentor and role model; paradigm shift; support "a second person at the receiving site is critical both for teaching and for helping with technical aspects, and this can mean additional costs" Almost 2/3 of faculty who taught via distance learning received specialized training in distance learning delivery
17) Stafford & Namorato, 1998	Training of faculty in multi media technology	Faculty introduced to flat-bed scanners, slide scanners, video captive devices, digital cameras, digitalized sound	Posttest	Qualitative feedback from faculty	Survey	N=20 faculty taking part in training	Problems with compatibility of computers, and other technological problems, considerable investment in time.
18) Thyer, Artelt, Markward, & Dozier, 1998	Face-to-face and televised instruction alternated each week	Instructor at alternative site every second class to teach live; students had equal amounts of	Post-test only, alternative treatment control group design, replication	Two Biner's (1993) evaluation forms looking at quality of instruction, one pertaining to televised	Measure of attitudes toward televised instruction rather than student learning.	MSW in Child and Adolescent Assessment & Psychopathology (N=38), Substance Abuse (N=19). Remote site 50 miles	No difference in appraisals of Child and Adolescent course. Substance abuse favored live instruction. When classes combined, all favored live instruction. Transmission difficulties.

		live & televised class	of earlier (1997) study	instruction, another to live instruction. (attitudinal measure)		away. Campus group alternate weeks of live and televised.	
19) Ligon, Markward & Yegidis, 1999	Two-way audio and video with an assigned doctoral student as a TA for both locations	ITV, Instructor of "Assessment and Psychopathology with Children and Youth" present in each site every other week (N=36), TA doctoral student at both sites.	Survey Nonequivalent comparison group design	20-item course evaluation and a 7-item qualitative questionnaire on the usefulness of the course format	Lack of demographic information about participants	14 distance learning and 122 on-site courses between 1994 and 1996 Advanced MSW: Practice (N= 84), HBSE (N=9), Research (N=10), Policy (N=3), Cultural Diversity (N=5) and Field (N=25) 3 courses: 2 Family practice and Substance Abuse course taught in both formats 39 qualitative questionnaires	Distance course rated higher than traditional courses with primarily lecture content. Ratings for clinical courses lower in distance format 73% reported distance learning technology interfered with class participation. 19/35 would take another distance course (particularly if choices were limited) On-site courses on Abusive and Neglectful families, Family Treatment higher on site and Substance Abuse higher in remote 25/39 Psychopathology course said technology interfered with discussion, class participation, class time taken away due to faulty technology, technology distracting, intimidated in front of camera "In order to take a particular course, students are willing to sacrifice an ideal learning experience."
20) Coe & Elliott, 1999	Mixed format (face-to-face and satellite	Two distance groups	Nonequivalent group post-test	Grades compared, Researcher-	Groups not equivalent. Distance students	3 graduate MSW practice courses in child welfare.	Barriers in the learning environment and access to support services. Distance

	TV) compared with on campus direct practice course	received combination of ITV and in-person instruction. ITV included 6 3-hr. face-to-face and 8 3-hour ITV. Classes received "similar instruction, exams, and assignments. "	only design	designed instruments looking at: interaction with instructor, perceptions of instruction, quality of resources, ident-ification with university, advisement, classroom socialization	worked together in job Grades compared but different assignments and instructors. All grades high, little variance. Instruments: not standardized, reliability and validity unclear. Confounding variables (i.e., socializ-ation in pre-established (distance) group). Distance students older and more experienced, had group assignments. Rationale for taking distance course not known. Different instructors. Statistics confusing	Two distance samples and one face-to-face sample. 3 classes: 1 on-campus, 2 distance. 30 on-campus and 47 off-campus students	problems included identifying with the program, accessing support resources. Distance program is meeting the need for professional social workers in child welfare rural settings. Problems in learning environment centered on technology problems: small TV, need for more microphones and audio problems. Distance learners socialized more outside the classroom (they all worked together).
21) Padgett & Conceicao-Runlee, 2000	A Virtual Guild (i.e., training of faculty in computer usage)	In-house faculty training workshops on computer usage	Evaluation after each training session	Questions around program structure and staff motivation	Small sample size, no comparison group, evaluation of training workshops	N=12 faculty	Most faculty motivated to learn different computer applications yet concerns about faculty time commitments in terms of workloads and incentives
22) Faux &	Internet	Traditional	Pre- and	Test on the	Small sample	BSW,	Traditional section showed

Black-Hughes, 2000	website, traditional classroom, mixed traditional and website	group given lecture and discussion, Internet group given instructions on how for website and self-directed learning. Mixed format group in discussion on contents of assignment.	posttest on Social Work History, random assignment, creation of a website by researchers for internet group, 2 hour assignment	course segment involving social work history and questionnaire seeking qualitative data.	size	Introduction to Social Work. 3 sections: traditional group (N=13), internet group (N=13), mixed formats methods (N=7) (randomly assigned)	most improvement at posttest. Students uncomfortable with learning from internet; wanted auditory stimulation. Internet is less effective way to teach social work history than traditional lecture and discussion. Concerns about use of internet as a primary learning tool.
23) Cauble, & Thurston, 2000	Interactive multimedia	Interactive multimedia training curriculum for child welfare workers, 10 computer based instruction units.	Pre-test and posttest comparison design. Comparison was based on selecting items in a unit the student did not view.	Student attitudes toward technology and multimedia, Instructional efficacy and feasibility for social work education. Student gains in knowledge and their confidence to perform competencies pre and posttest. BFF Competency	How was technology used? Adjunct, supplement or sole use? Students developed some of the skills measured in other classes – interference/contamination from other classes. Anecdotally, the process of practicing skills in class increased students' feelings of competence.	BSW students selected from Building Family Foundations course compared with items that students did not view. Child welfare issues in generalist social work practice, 10 Interactive Multimedia computer-based instruction units; 38 undergraduate students. 2 groups: Group 1 (N=18) in one class that viewed	Increase score on CRS from 2.71 to 4.07 Increase from pretest to posttest on CWKA from 12.18 to 16.18 TRS pretest mean of 2.25 and posttest mean of 2.25 Confidence and knowledge increased after viewing the units. One group increased confidence and ability on a unit they did not use. Increased comfort with technology

				Rating Scale (CRS) Child Welfare Knowledge Assessment (CWKA), [designed by program developers] Technology Rating Scale		Unit A; Group 2 (N=20) in another class that viewed Units A, B, C, and D. All students in Unit E	
24) Van Soest, Canon, & Grant, 2000	The use of 4 interactive web forums designed to create a safe, respectful and open classroom environment to discuss diversity content	Technology as adjunct to class that used various teaching methods. Internet dialogue assignment 2 web pages, one for submitting comments and another for reading, pseudonyms	Descriptive, survey design	Usage patterns of the website and student evaluations of the forum, 10 items	Some duplicate evaluations completed, online evaluations discarded, Demographics not collected Descriptive	1st year MSW HBSE course that combines cultural diversity and social justice (N=106); 65 students evaluated	629 forum entries, ranging from 4.2 to 8.7 entries per student Heavier participation at the beginning of semester Peak usage around gay issues, women's issues Some comments re. offensiveness of some postings, More openness on Web than in classroom 67.7% of students reported comfort discussing sensitive issue in classroom 78.5 % of students found forum useful for discussing sensitive issues 84.8 % appreciated anonymous comments Open-ended: liked anonymity, especially re. sensitive issues, extended discussion time, helped classroom participation but

							when posted on web, students did not want to discuss in classroom Dislikes: Negative student comments, patterns of participation, technical issues
25) Schoech, 2000	Web site, list serve, discussion forum and chat rooms	Instructor becomes curriculum designer, guide, and monitor	Pre and post test questionnaire	Pre and posttest of attitudes, course evaluation, participant observation	Small sample size, bias because of convenience of taking course off campus	PhD course on technology supported practice (N=8)	Additional faculty time required, technology problems, (e.g., Need for fast typing in chat rooms). Lack of informal student contact, okay for a course that is primarily readings and class discussion Chat room well liked
26) McFall & Freddolino, 2000	Electronically mediated instruction ITV, compared with home campus	Local coordinators in distance sites	Nonequivalent comparison group design	Focus groups and individual interviews on impact of distance education program. 4 versions of survey instrument 14 Likert-type items mailed surveys	Part time students in distance sites, primarily looked at perception of field instruction environment	51 MSW students, 5 field instructors, 9 agency directors commenting on their field environment	All students with overall positive perceptions of field instruction environments and even higher ratings for off site students
27) Freddolino & Sutherland, 2000	ITV, traditional classroom	Primary medium for 2 sites, beamed from an on-campus site.	Nonequivalent comparison group posttest (toward end of class), Same	Score on Adult Classroom Environment Scale (ACES) measuring: affiliation, influence on course content,	No random assignment. Groups different (remote had lower GPA, older, white, more experience) Faculty	Four years of MSW students in 2 remote sites over 13 courses (N=158), (N=78 on-campus, 42 in site A, 38 in site B). 978 ACES	No statistically significant differences in ACES scores between off and on-campus. When examined by course, no difference across sites for HBSE and Research. In Policy, site B had better perceptions than site A. Sites

			instructor, Same content, Same assignments, Different class facilitators. Student observations measured at single point in time.	meeting of personal goals, organization of course material, supportiveness of instructor.	associates not the same. Some individual students completed as many as 10 forms, and cannot assume independence of observations. Did on-site students rotate through the program quicker? Did not directly measure perceptions of various technological factors. "Students at the distance sites may have feared that the program would be discontinued if courses did not receive positive ratings"	forms collected (each form was considered a separate case)[349 in site A, 332 in site B, 295 on campus). The whole range of MSW courses were offered.	A and B combined had better perceptions than on-campus. In practice course differences between on-campus and sites A and B, and between sites B and A. Students in most remote site may have been excited that the program was being offered to them. On-campus and remote site may have been measuring different things: "Instead of measuring convenience, they were measuring pedagogical essentials" (p. 126). "The expectations of distance students …. Can never be the same as the expectations of students who are on campus, with all the conveniences to which they have become accustomed" (p.127).
28) Hollister & McGee, 2000	ITV compared with face-to-face	Emails used to supplement learning, visits to offsite classes made by	1997 remote students compared with 1998 traditional students. Not all were	Course grades ITV ratings of course impact on learning (questionnaire constructed for course) Instructor-	Small sample size. How comparable were the 2 courses in terms of instructor, content, assignments?	Course on Substance Abuse and Child Welfare content Graduate students at remote, experienced. (N=18)	Grades were comparable. One-third of distance and resident students said ITV enhanced their learning. 40-44% said it made no difference. 1/6 of distance and 1/10 of residence students said it hindered learning.

		instructors, and coordinators in each site. 10 3-hour class sessions. ITV class	social work students Posttest design	student communication using 7 items from standard university course evaluation. Comparison of student responses to "How much would you say you learned in this course?"	Statistics on grades not provided. Reliability of outcome measures unknown. Grades dependent on instructor judgment Nonequivalent groups Validity of university course evaluations questionable	Traditional students were mixed (N=10)	Instructor-student communication was the same. The 1998 traditional students' mean was ½ point higher than the 1997 distance students.
29) Huff, 2000	ITV, Email, Listserv.	ITV for distance class. Email for instructor-student contact. Listserv for weekly outline and sharing information.	Nonequival ent control group pretest posttest	California Critical Thinking Skills Test	No random assignment. Convenience sample. History (e.g., after technological problems, distance group received videotape) Most part-time students part of the same cohort making comparison group impossible.	62 MSW students in a Social Policy course; 38 distant and 24traditional students	No significant difference between two groups at pretest on critical thinking skills. Students in both groups increased critical thinking skills but no significant difference. Ethnicity was only variable with difference on CCTST scores. Site location did not make a difference on CCTST score gains. Distance students complained about technological problems, the condition of viewing sites and difficulties hearing instructor. Distance students would have enjoyed personal interaction. Campus students felt connected as a group.

							Distance students felt antagonism towards campus students. Email used to compensate for interaction difficulties.
30) Petracchi & Patchner, 2000	Traditional class including ITV out and ITV only	Different instructors for ITV course and traditional class	Comparison group Posttest	Instructor interactive skills Perceptions of resource availability Classroom experience with technological aspects of learning environment	No choice in remote site but to take ITV course Convenience sample with small N in each group Different instructors for courses	MSW Research N=23 in origin classroom, N=26 in offsite ITV classroom, N=16 in third site with ITV only and different course instructor.	No statistical difference found, concern about interaction quality of instructor for both ITV sites, some concerns about resources available for offsite students.
31) Petracchi, 2000	ITV compared prerecorded videotapes	Creation of videos	Comparison group design, survey mailed to students	Experiences with technology Learning environment Instructor teaching skills Perceived resource availability	Small sample size for ITV course Post-hoc design with limited courses Poor response rate Demographic characteristics missing	N=16 for ITV Foundation Research course. N=126 for pre-recorded videotape course on substance abuse. Unclear if BSW or MSW students	No significant differences for both courses, positive experience for both Positives about video course included convenience of when to play video, ability to practice client examples on the videos Drawback was motivation to watch a complete video in one sitting.
32) Johnson, & Huff, 2000	Computer Mediated Communication; TV monitors, Social Welfare Policy-	Distance students call in with questions, comments but instructor and on-site	Survey mailed to students and analysis of e-mail transmissions	How students used e-mail and list serve within context of the classes. Student opinions on CMC	Use of pre-existing nonequivalent groups, no random assignment, convenience sample, over-	MSW level 76 first year, part time students enrolled in distance courses 30 on site , 46 attended 12 other sites	422 course transmissions (45 were from the system – delivery failures, 27 from listserv coordinator). 369 transmissions by students. 74% student-to-instructor and 26% shared with instructor and classmates. 15.7% from

	listserv and E-mail, In HBSE Listserv to post lectures and study questions. E-mail to enhance TV transmission	students could not see. 10% of grade based on attendance & participation measured by presence or postings		techniques, e-mail transmissions coded for message content	reliance on self-reported data, potential for bias by respondents and researchers	All classes met for 2-hours/week for 15 week + 3 Sat. Distance students met on campus on Sat. 40 surveys completed (52.6% response rate) (37% by on-campus students and 64% were distant students) Social Welfare Policy HBSE	campus students. Average per student 6.5 from distance and 2.0 from on-campus. 17 sent no transmissions, 11 sent only 1 message. 71.5% of messages sent by 10 students. (One student sent 37 messages). 12 had no home access Students liked feedback and grades via email and some said technologies made instructor more accessible Listserv useful and helped connect classmates <u>Problems</u>: information overload, access problems, division within class between haves and have nots. Insurmountable technological challenges Authors found listserv helpful in exchanging information, high volume of incoming transmissions, need competent support staff Technology more appealing to distance students, used to remedy shortcomings rather augment learning Students used technology for practical reasons rather than augment learning Seldom used Listserv for extended discussions of course.

33) Wernet, Olliges, & Delicath, 2000	WebCT	WebCT used, but the capacity of its use was not described – e.g., was it a class enrichment or stand-alone	Posttest Survey	Researcher-constructed instrument examining student perceptions	Survey What was the intervention?	2 sections of Social Work Research (graduate and undergraduate) N = 39 students; 19 BSW and 20 MSW	Undergrads more experienced with e-mail; Grad students more likely to access the course Web site from home; Undergrads more enthusiastic, grad students less likely in future to enroll in courses using Web technology. Students did not use Web weekly. Undergrads least likely to make weekly use of hyper-links. Grad students used e-mail weekly. Only lecture notes, quizzes and tests increased course involvement. Mixed impact of WebCT upon course involvement, bulletin board not impact on improving course performance; Mixed impact of WebCT on grades: undergrads reported no improvement of grades due to hyperlinks, e-mail and online book but liked lectures online. Grad students felt quizzes and test and other online assignments improved course grade, Significant difference between on-site and off-site students in use of technology, course involvement, impact on course performance and impact on course grade; "In order for students to

							appreciate technology, they must see a utility or usefulness for the technology. For nontraditional students, technology helps balance competing demands. For traditional students, the utility is less apparent."
34) Stocks & Freddolino, 2000	Web based lectures containing notes, questions, listserv discussion group. 2 iterations of the class.	Stand-alone web-based courses.	Quasi experimental design. Second iteration of the class had enhanced interactivity components.	Computer Attitude Scale - comfort with computers. Technology Use Inventory - perception of technological proficiency. Demographic info. Classroom Relationship Inventory. Frequency of use of class Listserv	Non-probability samples. Control of extraneous variables weak.	MSW research course N= 48	1998 class posted more relevant items more often. Increase in content-related reply posts. 1998 class related more positive attitudes. Students in the more computer-experienced course used the class discussion list less.
35) Haga & Heitkamp, 2000	ITV	Stand-alone ITV courses and face-to-face courses offered between 1989 and 1993	Non equivalent comparison group, posttest	Student satisfaction comparing distance with on-campus students, Grades Professional accomplishments of alumni Course	Not every course section taught the same section No Standard Deviations given Major differences between on-campus and distance learners in terms of marital status,	BSW Social Welfare in Modern Society Social Welfare, Methods Senior Seminar, Social Welfare Policy, Social Work Administration, HBSE, Research	High degree of student satisfaction with course instruction. Little difference between students' perception of course instruction between distance and face-to-face course. Technical problems a concern.

				evaluation Distance students did own evaluation on basic measures, i.e., sound quality, etc. Alumni survey on who was practicing	age, income Small N for grades (16 and 16) No measure of educational quality	Methods	
36) Cascio & Gasker, 2001	Weekly email communication between MSW students and pre-professional baccalaureate students.	Email correspondence between MSW students and undergraduates.	Pretest and posttest survey with experimental and comparison group.	10-item Likert-type scale on social work values. Qualitative content analysis of student email correspondence. Data independently coded by both investigators.	Project was "voluntary," but extra credit given to students who chose to participate. Reliability and validity of the instrument unknown. Social desirability bias.	Mentoring. 12 undergraduate students, 15 comparison students, 14 graduate students. Students in pre-BSW program randomly paired with MSWs in Family Therapy course. Compared to another pre-professional group	Changes in average scores for comparison and graduate groups not significant. Average score for experimental group was significant, suggesting that professional identity was enhanced. MSW students liked the teaching aspects of their role, validation of BSW students' limited experiences, emotional support, normalizing (all reported by mentors).
37) Kleinpeter & Potts, 2002	ITV	Increased reliance on the use of site coordinator & assistant instructors. Need for 2-3	Comparison group design Posttest	Grades Faculty evaluations Field evaluations	Not sure if off site students part-time. Was choice offered between traditional or ITV?	On-site (N=26) Distance (N=52), MSW Practice Methods courses	No significant differences in grades, faculty evaluations or field evaluations

		faculty visits					
38) Randolph & Krause, 2002	Use of website with linkages and discussion board to enhance mutual aid	Creating website and exercises	Exploratory post-test survey, alternative treatment, control group design	Survey mutual aid enhancement by website and website exercises	98% of students part-time, Poor response rate to survey	MSW students in Theories of Organizational Development (N=83) Onsite and 2 remote	Primarily like website and exercises for access to course tools yet passive learning with limited use of website for mutual aid through student interactions
39) Seabury, 2002	Two educational computer tutorial programs	Self instructional tutorials completed in about two hours by students, include a video simulation	Post test and comparison group design	Survey of attitudes, test results	No random assignment to groups	Crisis course tutorial (N=35) Suicide course tutorial (N=9) Also compared with students taking crisis course without computer tutorial. MSW students	Students completing the crisis tutorial scored higher as a group than the classroom groups.
40) Panos, Panos, Cox, Galbraith, & Matheson (2002)	Video conferencing	Video conferencing to international field sites. All began with email and phone. Semi-structured interviews with on-site directors	Exploratory posttest comparison group design. (Authors suggest it is experimenta l design but there is no indication of random assignment to groups).	Student opinions based on 2 or 3 questions. Interviews with agency directors.	No random assignment to groups. Small N.	13 MSW students in video conferencing group 11 MSW students in comparison group Field supervision course	Students isolated before video conferencing - phone calls and email inadequate. 91% challenged in clinical skills. 71% had site or personal challenges. After video conferencing, video students reported drop in isolation, access to video conferencing and visual contact with supervisor and other students reasons. 82% of video conferencing students rated video conferencing equivalent to live supervision. 5 agency directors reported experience

							positive, partly because of increased computer resources. Increased agency contact with university and decreased student dependency. Increase in "emotional bandwidth." Difficulties in hardware acquisition and maintenance (cost), and finding Service Provider in country. Technical difficulties, (e.g., software "crashing
41) Hick, 2002	On line course	"Introductio n to social welfare." Using a café, questions, topic discussion. Students do 2 replies to question a week. 3-day face-to-face meeting at outset.	Descriptive design, posttest	Focus group with 17 First Nation and 3 non-Native course participants Three questions asked: What they liked the most? What they liked the least? What were the major barriers?	Descriptive design	N=20 participants in remote areas	Likes: Learned about computer and Internet, convenience and flexibility. Learn at own pace. Liked on-line self-tests, weekly discussion groups, online glossary of terms, modular layout of course, connecting with other learners. Dislikes: Too much text and online readings, difficulty reading on computer screen (no access to a printer), too much time before instructor posted new discussion questions. Students wanted to connect with other students. Some adamant that face-to-face time is critical. Would prefer combination of face-to-face and online learning Barriers: Lack of computer and Web knowledge.

42) MacFadden, Maiter, & Dumbrill, 2002.	6-week online course	Cultural competency course.	Descriptive, posttest	Impressions about experiences.	Descriptive design Small N	N=19 MSW students	Students: Positive experience when successful "I don't feel quite so much like … baying at the moon or into cyberspace." Blurred identity such as age, appearance, etc. to move above stereotypical responses in face-to-face interaction. Students not knowing where they are in the online learning process – "loss of gravity." Confusion and anxiety from lack of physical cues in communicating. Lack of social cues causes problems for learning. Facilitators: Sense of achievement for course facilitators. Absence of normal referents due to virtual learning environment, removing cues that contribute to the processing of information (e.g., scanning room, eye contact, nods, etc. lack of referents disempowered facilitators.) "What does bored look like online?" "How do theories of group dynamics apply to an online group?"