

## **Education in Rural Missouri via Two-way Interactive Television: Evaluation of Learning and Technology.**

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Three clusters of rural Missouri high schools formed two-way interactive television (I-TV) networks during the summer of 1993 to share teachers and students between districts. A total of twenty-three high school and dual-credit classes were offered to approximately 300 students during the first year of operation—including twelve advanced science and math courses. A number of different qualitative and quantitative measurements were taken to assess the effectiveness of providing courses via this distance learning technology to rural high school students. Quarterly attitudinal surveys completed by students and teachers showed a favorable attitude toward I-TV which did not change appreciably over the course of the year. In addition, students completed a motivational survey focusing on the areas of attention, relevance, confidence and satisfaction. The data from the Missouri surveys were compared with similar data from two groups of Open University Thailand correspondence students (one text only and one combined text and videotape) and Kansas high school Spanish by satellite students. The survey results indicated a slightly higher mean score for I-TV than for the other technologies: two-way I-TV (3.46); one-way satellite (3.43), correspondence with text and media (3.29); correspondence with text only (3.12). Income and location adjusted SAT Achievement Series test scores, compared against mean US and Missouri scores, showed I-TV students in the Missouri schools fared as well or better than students in traditional classrooms. Two-way interactive television appears to be the preferred distance learning medium for teaching high school courses, although teacher surveys showed that some special accommodations had to be made for teaching advanced science and mathematics courses over the networks.

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