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Polling Your Audience with Wireless Technology

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Polling Your Audience with Wireless Technology

Abstract

New audience response systems have number of unique qualities that are particularly well suited to Extension, especially economic and policy workshops. They preserve anonymity, can be used in a manner that is more comfortable for participants, and enable discussion of sensitive personal and policy information. This article provides an overview of the technology, discusses unique applications for Extension, and reviews its use in a recent farm business planning workshop. The technology enabled tailoring of the workshop to participants' interests and facilitated discussion of minority views.

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Recent advances in wireless technology provide new opportunities to engage audiences in Extension workshops. While audience response systems have been around for years, they were often cumbersome to use and fixed in location. New systems, such as the Personal Response System (PRS), are user friendly and transportable, and create the excitement of "polling the audience" on Who Wants to Be a Millionaire. This article provides an overview of the technology, discusses unique applications for Extension, and reviews its use in a recent farm business planning workshop.

Personal Response Technologies

Modern audience response systems (ARS) consist of a handheld response unit that is the size of a cell phone, with an embedded keypad, a receiver, and software that tabulates, summarizes, graphs, and records individual audience responses. At North Dakota State University, two-thirds of freshmen now use ARS in their classes. Instructors routinely use the system to monitor attendance, enhance student-teacher interaction, and assess student performance. Edmonds (2005), Elliot (2003), and Hake (1998) discuss other classroom applications and note that active learning, depth of learning, and student interest all increase.

Off-campus use of ARS has been minimal to date, but offers great potential. Salmon and Stahl (2005) found no significant difference in learning with ARS in their off-campus workshops. However, ARS possesses a number of other unique qualities that are particularly well suited to Extension.

First, traditional participants in Extension workshops (farmers and other rural citizens) are often not accustomed to raising their hands and volunteering information publicly like students in a classroom. ARS preserves individual anonymity and can be used in a discreet manner that is more comfortable for participants.

Second, many Extension programs involve sensitive personal information, especially workshops on

economic and finance topics. When participants in these programs really get involved, they often desire responses to their own personal situation, but are reluctant to volunteer information about their problem. Periodic planned examples can assist educators with development of examples that are more relevant to individual needs.

Third, when discussing topics of a policy nature, ARS provides an opportunity to express minority interests who otherwise would not speak up. Finally, ARS methods may be an interesting way to break up day-long sessions and increase interaction (Ponessa, 1999).

Strategies for Use

Instructors can pose a question orally, write it on an overhead, or project it internally through ARS. Respondents have an allotted time to enter their response and can revise their answer if needed. Once the question is asked, a clock is started, and time remaining is shown. A grid on the projector's screen indicates when individual handsets have responded. Respondents can check their handset number to see if their entry has been recorded. Questions can be Yes=1, No=0, multiple choice (e.g., select one of five possible answers), or numeric (e.g., estimate your city's population).

Classroom instructors frequently pause during their lecture and pose a question with ARS to monitor student comprehension of a topic. This technique could be readily adopted in Extension workshops to gauge audience understanding at the beginning of a workshop. Newer ARS have the capability of posing questions directly in PowerPoint slides for a more seamless integration of the technology.

Extension educators could also use ARS to gauge learning for assessment purposes by posing questions at the outset and conclusion of each workshop. Audience responses can be quantitatively measured and more conveniently obtained than pre- and post-paper testing.

ARS can operate either in anonymous or named mode. In most Extension workshops, ARS will probably be used anonymously. However, named mode may be useful when monitoring completion of certification programs. Further, named responses over time might reveal progress in lifelong learning.

Extension educators are advised to review their institution's Institutional Review Board policies. Depending on the nature of individual responses received, proper assurances might need to be provided to workshop participants.

Farm Business Planning

ARS was recently used to enhance producer involvement in a series of farm business planning workshops held in North and South Dakota. At the beginning of the workshop, producers were divided in small groups and asked to identify important risks facing their operation (e.g., weather, disease outbreaks, border/trade issues, etc.). The group then reassembled and used ARS to vote for the 2-3 most important issues facing the group as a whole. These topics were then integrated into the remaining curriculum throughout the workshop.

In a discussion of household expenses, participants used ARS to identify the average level of household expenditures for North Dakota farms. They were presented with five possible responses (\$15-\$40,000. Most were surprised that the average level was the highest choice (over \$40,000). Their modal response was \$25,000.

When discussing labor issues, participants were presented with a problem employee situation and asked to use ARS to select the best strategy for responding. Responses were equally divided among the alternatives selected. This provided the instructor an opportunity to discuss the merits of all the alternatives and did not allow one member of the audience or idea to dominate the discussion.

Conclusion

New wireless audience response systems are rapidly being adopted in academic classrooms and may offer several opportunities for Extension. This article reviews the merits of ARS and discusses a recent trial in a farm business planning workshop. Educators will have to invest some initial energy learning the software and integrating the system into their materials. However, heightened audience interaction and more personalized responses make the effort worthwhile.

References

Edmonds, V. Turning point student response system. Retrieved April 6, 2005, from: <http://www.campus-technology.com/print.asp?id=9864>

Elliot, C. Using a personal response system in economics teaching. *International Review of Economics Education*, 1:1(2003), 80-86.

Hake, R. R. (1998). Interactive-engagement versus traditional methods: A six-thousand-student

survey of mechanics test data for introductory physics courses. *American Journal of Physics*, 66:1(1998), 64-74.

Personal Response System. Retrieved April 5, 2005, from:
<http://www.gtcocalcomp.com/interwriteprs.htm>

Ponessa, J. T. (1999). Gaining audience involvement: Interactive teaching exercises. *Journal of Extension* [On-line], 37(3), Available at: <http://www.joe.org/joe/1999june/tt1.html>

Salmon, T. P., & Stahl, J. N. (2005) Wireless audience response system: Does it make a difference? *Journal of Extension* [On-line], 43(3) Article 3RIB8. Available at:
<http://www.joe.org/joe/2005june/rb10.shtml>

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