THE SS-AAEA QUIZBOWL: SUCCESS IN AND OUT OF THE CLASSROOM A THREE YEAR STUDY

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Impacts of University Financial and Academic Support on Student Performance at the SS-AAEA Quizbowl Competition and in the Classroom

This paper summarizes some of the results of the 2001-2003 surveys of Quizbowl team members and their advisers regarding the potential benefits of the SS-AAEA Quizbowl Competition to students' academic performance and the diversity of university's academic and/or financial support of participants.

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Introduction

For many years, agricultural economic instructors have reported the benefits of games to the learning process. These advocated games are generally part of a structured university course and specific to one speciality within a discipline (e.g, Arellano et al, 2001; Delemeester and Brauer, 2000; Gremmen and Potters, 1997; Lowry, 1999; Popp and Keisling, 2001). The Academic Quizbowl Competition (Quizbowl) of the student section of the American Agricultural Economics Association (SS-AAEA) provides students with an opportunity to test their skills across a wide range of agricultural economics topics outside of the university environment. Over the years, both student participation in the program and the level of difficulty of the questions has increased. Furthermore, Competition organizers have experimented with the rules of the game and the distribution of travel funds.

Over a three year period, from 2001 to 2003, a survey was conducted during the annual American Agricultural Economics Association (AAEA) meetings to investigate the usefulness of the Quizbowl competition on academic performance and to assess students' opinions of the evolvement of the game and funding opportunities over the years. A follow up survey was sent to Quizbowl team advisors to assess the type and degree of support that students received from their home institutions to complete in Quizbowl. The purpose of this paper is to provide a brief discussion of some of the survey results. Complete results will be released at a later date. The author hopes that this information may be useful to competition organizers and university instructors and administrators in making their decision to financially and/or academically support the students wishing to participate in Quizbowl in the future.

Background

Overview of the SS-AAEA Quizbowl Competition

In the late 1980s, Quizbowl was introduced as a student team activity of the SS-AAEA during the annual meetings of the American Agricultural Economics Association. Each team consists of three students from a US or Canadian university[1]. The purpose of the Quizbowl game is to test students' knowledge in ten areas arranged into eight categories: agribusiness/finance, agricultural policy/ natural resources, macroeconomics, management, marketing, microeconomics, quantitative techniques, and a potpourri category which is often devoted to general agriculture or questions from the other seven categories. Each university can send a maximum of two complete teams to represent their university. Any additional students who wish to participate will be placed on "mixed"(players from multiple universities) teams.

A windows based software program developed in the early 1990s is used to run the game[2]. Each round of play consists of 40 questions posed at five skill levels worth 5 to 25 points each. During a Quizbowl competition, the two teams sit on either side of a moderator and a computer operator. Two judges are also provided with a laptop on which they can view answers to the questions. Each team member is given a Quizbowl buzzer. Categories, point values, scores and questions are projected onto a screen and seen by the Quizbowl participants, a moderator, two judges and the audience. The teams have 15 playing minutes to correctly (as determined by the two

[1]Quizbowl activities were also added to the Student Section of the Southern Agricultural Economics Association meetings in the early 1990s. However, in this competition students are randomly assigned to mixed teams. Each three person team usually includes students from three different universities.

[2] The latest version of this Quizbowl software and sample questions/answers may be downloaded freely from the Student Section of the American Agricultural Economics Association website at http://www.aaea.org/sections/studentsection/Quizbowl.htm. This software can be run on most Windows 95 or Windows 98 based desktop or laptop computers. A newer version is expected soon.

judges) answer as many questions as possible. The team with the most points at the end of the round wins. Teams historically have been eliminated from the competition after the loss of two rounds. In 2002, this was changed to three round. The last two teams remaining at the end of the one and a half day event compete one last time for the Championship title which in recent years has taken place at the AAEA awards session.

Overview of Financial Considerations for Quizbowl

While the numbers of undergraduate students participating in the SS-AAEA activities, and in particular Quizbowl, has been on the rise in recent years so have been the costs to attend these meetings. For example, the costs of sending six students (or two Quizbowl teams) from University of Arkansas to the AAEA meetings were $ 3,457 in 2001 (Chicago), roughly $4000 in 2002 (Long Beach) and $5,320 in 2003 (Montreal)[3]. These are conservative estimates that do not include costs of transportation to and from the home airport with the cheapest flight (up 220 miles round trip) and other incidentals such as team shirts. Costs faced by students from other universities will vary greatly based on transportation needs. However, as future meetings cycle through a three city rotation, it is likely that any given university will be faced with extensive transportation costs at least once every three years.

In general, students who wish to participate in the competition can seek funds to cover these expenses from three sources: AAEA travel grants, university grants/funding, and team fund raising. Through 2002, AAEA provided travel grants to all universities who applied. Given the limited amount of available funds and the large number of universities requesting funds, travel grants generally only covered a small portion of travel expenses. In 2003, part of the travel grant awards

[3]These costs include: Quizbowl team registration, early student registration , 2 rooms for 3 nights lodging, 3 days meals at University of Arkansas per diem rate , lowest available airfare, and travel from airport to hotel.

were reserved for those who placed in Quizbowl and other SS-AAEA competitive events. Remaining funds were used to support a student social.

Students may also receive support from their universities, either through direct funds from university administrators or departmental club (such as an agricultural business club) fund raisers. As this paper will show, the availability and amount of funding received by students from these sources varies greatly. Finally Quizbowl team members can conduct their own fund raisers.

Overview of the Role of the Competition

In recent years, there has been some dispute over the appropriate nature of the Quizbowl competition. Discussion continues as to the appropriate make up of a team: three students from the same university, as historically managed at the AAEA or three students from different universities, as historically managed at the Southern Agricultural Economics Association (SAEA) annual Quizbowl competition. Some advisers believe that students perform better and work harder when allowed to compete as a team representing their university. Others believe that the purpose of the event is to help build economic knowledge and interact with students from other universities. This study helps to formalize these thoughts by sharing three years of opinions. of Quizbowl team advisers regarding the impact of financial contributions and a competitive environment on the participation in and outcome of, the Quizbowl competition.

Methodology

From 2001 through 2003, students participating in the Quizbowl competition were asked to complete a survey to ascertain the benefits - both in and out of the classroom - of participating in the Quizbowl competition. The survey included questions related to: 1) the usefulness of preparing and competing in Quizbowl for understanding course topics, 2) the methods used and time spent to

prepare for the competition, 3) their overall level of satisfaction with the Quizbowl experience, and 4) student information (e.g., class standing, grade point average, geographical region of their home university). In 2003, questions were added to the student survey regarding the means used to fund the trip and their opinion on use of AAEA funds for student mixer and competition awards. Summary statistics were compiled for each question.

Following each annual competition a survey was sent to the Quizbowl team advisors to ascertain what kind of support, if any, students receive to participate in the annual SS-AAEA Quizbowl competition. The brief survey included questions related to: 1) the number of years the school had participated in Quizbowl, 2) degree of faculty/staff involvement in preparation for the competition, and 3) percentages of various costs categories paid by university sources. In 2002, two questions were added regarding opinions on the purpose of Quizbowl (social vs academic exercise) and Quizbowl team management (university representation on a team vs team made up of students from three schools). The following includes a summary of some of these results.

Results

Respondent Demographics - Students and Advisors

Over the three year period 300 students completed the survey; 108 in 2001, 102 in 2003 and 90 in 2003. Respondents came from midwestern (110), southern (101) Western (54) US and Canada (35 respondents). Roughly 55 percent of respondents were male. The majority of the student participants were juniors and seniors and over 70 percent held a grade point average of 3.0 or better.

Over the three year period, 56 advisors responded to the survey, 17 in 2001, 23 in 2002 and 16 in 2003. As in the student response, the Southern (19) and Midwestern (20) regions had the greatest representation whereas the Western (9) and Canadian (8) had the lowest.

Student Preparedness

The level of participation for the Quizbowl students can vary greatly. Some students meet on a regular (weekly or bi-weekly basis) either alone or with a team coach/adviser to go over potential questions and to practice their speed at reading questions in the Quizbowl program and responding with the buzzer. Other students meet infrequently without a coach or advisor in the months preceding the event, reviewing materials they have learned in class. These students are generally split in their use or non-use of the Quizbowl software program. Finally there are other students that do not prepare at all. A previous study (Popp, 2002) showed that level of preparedness greatly impacts students' performance in the competition.

Academic Benefits of Competition

Students were asked overall, how well past competitions and all practice sessions had helped them to understand concepts and techniques covered in their classes. Students could rank the benefit from 1 (helping to no extent) to 5 (helping to great extent). In the first year, the mean response was 3.35 and this increased marginally over time. In general, it has been found that the longer the time spent in preparation for the competition, the greater the perceived benefit to overall course understanding. Students were asked whether Quizbowl preparation and participation aided in understanding individual subjects covered in classes. The results were overwhelmingly positive. However, benefits to Quantitative and Agricultural Policy course understanding were lowest year after year. These generally are the same categories that prove to be most difficult in the competition.

An interesting result is that perceived benefits varied greatly by preparation time. Even if a student did not prepare for the competition there is belief that there is some inherent benefit for academic understanding just by participating in the Quizbowl competition. However, in most cases, the more time spent in preparation the greater benefit the students felt towards their classes. Overall benefit increased anywhere from 17 to 116 percent with increased study time, depending on course topic. The results actually exceeded the author's expectations, and clearly indicate that the students perceive that their understanding of course materials can be greatly improved by preparing and participating in the Quizbowl competition. Advisors generally agreed with roughly 90 percent stating that the competition provides at least some academic benefit.

Financial Considerations

Each year, the survey responses have included comments concerning the ever increasing cost of attending the meetings. Surprisingly, both student and advisor survey results suggest most students receive at least 50 percent of their funding from their universities. For some students, particularly in the Midwestern and southern regions, this percentage is much higher. However, both students and advisers agree that university funding is likely to decrease over time and therefore other means need to found to either decrease the cost of participation to students or increase available funding opportunities. In the 2003 student survey, respondents were asked their opinion of the best use of AAEA funds for SS-AAEA activities: 1) use to fund student mixer and competition winners only, 2) split between mixer/winners and regular travel grants, or 3) use as travel grants only. Twenty-one of the 87 people who responded suggested that funds are best suited for the mixer/competitions only, where the remaining 66 respondents were evenly split between using funds for travel grants only and splitting the funds between travel grants and mixer/competition winners.

Similarly, the 2003 advisers were asked to choose between using the funds for the mixer/competition winners only or travel grants only. Of the 16 respondents, 10 felt the funds should be used directly for travel grants whereas 6 felt the money was better suited for the mixer/competition winners. These results suggest that by nearly a two to one margin, students and advisers feel at least some of the funds should be used as travel grants to participants.

Overall Satisfaction with Quizbowl Event

All student respondents were asked to rate their experience at the annual Quizbowl competitions from one (terrible) to five (excellent). While mean scores varied by year, students consistently were happy with the event. In recent years at the events, some have suggested that the event has become too competitive, neither student nor adviser response bears that out. Students and advisors are happy to see students present their schools. However, some advisers have suggested that students have more time to attend the paper sessions and explore the city

Summary and Conclusion

This study summaries some of the results of a three year study as to the potential benefits of Quizbowl preparation and participation to student understanding of course subjects. Results indicate that students perceive that their understanding of economics-related courses can be enhanced through participating in the Quizbowl competition. However, that understanding can be further enhanced with time devoted to preparing for the quizbowl event. Therefore, Quizbowl may not only be an event that students enjoy, but one that may enhance their academic performance. Results also suggest that level of financial assistance may positively influence performance at the competition. As such there may be some truth to some students' assertion that they are competing on an uneven playing field. This report provides only an initial look at the three year study results.

Future reports will provide more insights into the perceived benefits of the Quizbowl competition, financial support for the competition and overall satisfaction with the event.

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