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## **Disentangling Teamwork Dynamics: All Work for One or One Teaches All**

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### **Abstract**

Teamwork is a key component of an active learning strategy. Peer collaboration through teams may enhance the formation of social support and social learning. Whereas the classic case of “freeriding” involves one team member doing the work for the others, the “ideal” group dynamic allows for the acquisition of knowledge via a so-called “ripple effect.” This effect signifies that one group member may rise to the position of “team leader”, who is in charge of the other group members’ work. In particular, many agribusiness service-learning classes include a variety of students from different majors. Working in a team of non-major students, an agribusiness major may have a knowledge advantage and the opportunity for the technical subject matter to ripple-off and enhance the knowledge of other team members.

Our study determines the “ripple effect” of teamwork on an individual team member’s knowledge in the context of food marketing and distribution. We constructed a survey to assess the student’s individual information literacy abilities at both the beginning and end of the term in an introductory undergraduate agribusiness marketing course. To compare the group effect on students’ knowledge improvements, a final marketing term project was used as the vehicle to assess and teach information literacy. The ripple effect of group engagement was isolated based on student’s pre and post scores, student’s demographics, and project scores. Student groups were isolated as targets when they had low average scores on the pre-survey, high ranges in individual competencies (high min-max ranges), high standard deviations, and high change between pre and post scores.

Results show a positive relationship between teams with the widest dispersion in knowledge (pre-score standard deviation) and the team’s scores on the post evaluation ( $p=.001$ ). Teams with low standard deviations on the pre-test scored 66% on the post evaluation, while teams with high standard deviations on the pre-test scored 75% on the post evaluation ( $p=.008$ ). Consistent with that finding, teams with the highest range in pre-scores, experienced the largest change in scores between the evaluations ( $p=.043$ ). As expected, teams with low initial scores attribute the most

value to course assignments. This research provides a base for discussion regarding the role of teamwork and the composition of the ideal team. This research will fill a gap in the literature on fitting student improvements to differences in the students themselves, which has broad implications for motivating and educating students about food marketing and food distribution.

**Keywords:** teaching, teamwork, agribusiness, active learning