UNIT REPORT

Sustainable Agriculture and Food Environment MAG - Assessment Plan Summary

Sustainable Agriculture and Food Environment MAG

1- Knowledge Leveling Addressing Sustainable/Alternative Agriculture

Goal Description:

Leveling student understanding of sustainable/alternative agriculture to fill knowledge gaps.

RELATED ITEMS/ELEMENTS

RELATED ITEM LEVEL 1

1- Knowledge Leveling Addressing Sustainable/Alternative Agriculture

Learning Objective Description:

Leveling of student understanding of sustainable/alternative agriculture to ameliorate knowledge gaps due to the diversity of student academic backgrounds entering the SAFE program.

RELATED ITEM LEVEL 2

1- Knowledge Leveling Addressing Sustainable/Alternative Agriculture

Indicator Description:

Students entering the SAFE program come from extremely diverse academic and personal backgrounds. Though a portion of SAFE students have training in the sciences, it is not ubiquitous across all students. Therefore, filling knowledge gaps related to the science behind sustainable/alternative agriculture is critical in establishing a baseline among students to best prepare them for future classes they will take.

To assess student knowledge and potential gaps in understanding, a pre/post-instrument will be administered in SAFE 5371- Alternative Agricultural Enterprises.

Criterion Description:

SAFE faculty expect that a statistically significant difference in student understanding of key questions focusing on sustainability, ethics, health and the environment will emerge from the pre/post assessment.

Findings Description:

To assess student knowledge and potential gaps in understanding, a pre/post-instrument was administered in SAFE 5371- Alternative Agricultural Enterprises with key questions focusing on sustainability, ethics, health and the environment.

For Sustainability, the question, "Do you believe sustainable agriculture is organic?" helps to determine if students are able to understand the differences between the two systems and if they are able to distinguish how they are different. On this question, students were able to respond with No, Not sure, and Yes, which were then converted into numerical values (0, 1, and 2, respectively) for an analysis using a paired t-Test. On the pre-survey, students (n=20) responded with an average value of 0.9, indicating that they were unsure if the two systems were the same. On the post-survey, students responded with an average value of 0.6, indicating that while they were moving toward answering the question with No, the two systems are not the same. Yet, there responses failed to move far enough to create a significant difference (P=0.21) between the pre/post assessment.

For Health, the question, "Is a meat base diet bad for your health?" helps to determine how students view multiple types of diets and determine their healthfulness. On this question, students were able to respond with No, Not sure, and Yes, which were then converted into numerical values (0, 1, and 2, respectively) for an analysis using a paired t-Test. On the pre-survey, students (n=24) responded with an average value of 0.16, indicating that they believed that meat based diets were unhealthy. On the post-survey, students responded with an average value of 0.58, indicating that they moved significantly (p=0.01) toward Yes, meat based diets may be healthy.

For Ethics, the question, "Do animals have the right to a certain quality of life?" helps to determine how students view animals and their role in society. On this question, students were able to respond with No, Only certain animals, and Yes, which were then converted into numerical values (0, 1, and 2, respectively) for an analysis using a paired t-Test. On the pre-survey, students (n=24) responded with an average value of 1.83, indicating that they, with few exceptions, believed that animals had the right to a certain quality of life. On the post-survey, students unanimously responded with an average value of 2, believing that animals had the right to a certain quality of life. While this was only significant at the 90% CI (p= 0.10), that is likely because after a unanimous response, there wad not further way to respond.

For Environment, the question, "At what level does animal agriculture industry adversely affect the environment? " helps to determine how students view agriculture's impact on the environment. On this question, students were able to respond with None, Slight affect, Moderate affect, or Severe affect which were then converted into numerical values (0, 1, 2, and 3 respectively) for an analysis using a paired t-Test.

On the pre-survey, students (n=24) responded with an average value of 1.75, indicating that they, with few exceptions, believed that agriculture had a moderate affect on the environment. On the post-survey, students responded with an average value of 2.375, indicating that they moved significantly (P<0.01) toward the belief that agriculture had a severe affect on the environment.

RELATED ITEM LEVEL 3

1- Knowledge Leveling Addressing Sustainable/Alternative Agriculture

Action Description:

Those SAFE students completing SAFE 5371- Alternative Agricultural Enterprises course met or exceeded expectations established in all baseline areas except for sustainability, indicating this is the area where knowledge gaps exist, yet are not yet being filled. A stronger focus will then be adopted in the deficient areas in order to ensure that students in the SAFE program have the baseline knowledge needed for future classes. Outcomes in other baseline areas are expect to continue.

Update to Previous Cycle's Plan for Continuous Improvement

Previous Cycle's Plan For Continuous Improvement (Do Not Modify):

This is the first outcomes assessment in the new SAFE program. To assess student knowledge and potential gaps in understanding due to the wide diversity in academic and personal backgrounds of students, a pre/post-instrument was administered in SAFE 5371- Alternative Agricultural Enterprises with key questions focusing on sustainability, ethics, health and the environment.

Students in the SAFE program that were involved in SAFE 5371 met or exceeded expectations established in all baseline areas except for sustainability. Due to this area of sustainability being a deficiency a stronger focus on the material pertaining to sustainability will then be adopted to make sure that students in the SAFE program have the level baseline knowledge expected in other SAFE courses. Outcomes in other baseline areas are expect to continue.

Update of Progress to the Previous Cycle's PCI:

Students in the SAFE program that were involved in SAFE 5371 met or exceeded expectations established in all baseline areas except for sustainability. Due to this area of sustainability being a deficiency a stronger focus on the material pertaining to sustainability will then be adopted to make sure that students in the SAFE program have the level baseline knowledge expected in other SAFE courses. Outcomes in other baseline areas are expect to continue.

Plan for Continuous Improvement

Closing Summary:

1. Knowledge Leveling Addressing Sustainable/Alternative Agriculture: Students in the SAFE program that were involved in the course, SAFE 5371- Alternative Agricultural Enterprises course met or exceeded expectations established in all baseline areas except for sustainability. Due to this area of sustainability being a deficiency a stronger focus on the material pertaining to sustainability will then be adopted to make sure that students in the SAFE program have the level baseline knowledge expected in other SAFE courses. Outcomes in other baseline areas are expect to continue.