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## Identifying Professional Development Needs of Secondary Education Professionals

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# Identifying Professional Development Needs of Secondary Education Professionals

Denton R. Perkins, Tyson J. Sorensen, Kelsey Hall, Joshua J. Dallin, & Dave Francis | Utah State University

## Introduction/Need for Research

- The increasingly important issues and top U.S. priorities of food security, sustainable energy, and environmental quality demand highly qualified graduates with expertise in Agriculture, Food, & Natural Resources (AFNR).
- 32% of U.S. employers report difficulties filling job vacancies due to a lack of skills and training among potential employees (ManPower, 2015).
- More job openings expected annually in AFNR careers than AFNR graduates to fill them.
- Educational professionals play a role in student's career decisions, yet they often lack knowledge or have negative perceptions of AFNR careers (Boone & Boone, 2007; Thompson & Russell, 1993).

## Methodology

- Target Population; guidance counselors, school, and district administrators involved in aspects of student career development or exploration (CTE directors), work-based learning coordinators, and middle and high school teachers, including agriculture teachers in Utah.
- Surveys were administered at a "career day" event hosted in a central location of the state.
- Participants were asked to rate on a scale of 1 (*not important or not competent*) to 5 (*very important or very competent*) their perceived importance and their perceived ability concerning eight different career areas within AFNR.
- Seventeen participants representing schools across the state completed surveys.
- The Borich Model was used to analyze data and calculate mean weighted discrepancy scores (MWDS, Borich, 1980).

## Findings

*Secondary Education Professionals' Training Needs in AFNR Areas*

- ...6. Climate Change & Agriculture (MWDS=5.41)
- 7. Aquaponics (MWDS=5.38)
- 8. Urban Forestry (MWDS=5.18)

1. **Biotechnology in Agriculture**  
(MWDS=8.40)

2. **Unmanned Aerial Vehicles (UAVs) in Agriculture**  
(MWDS=8.39)

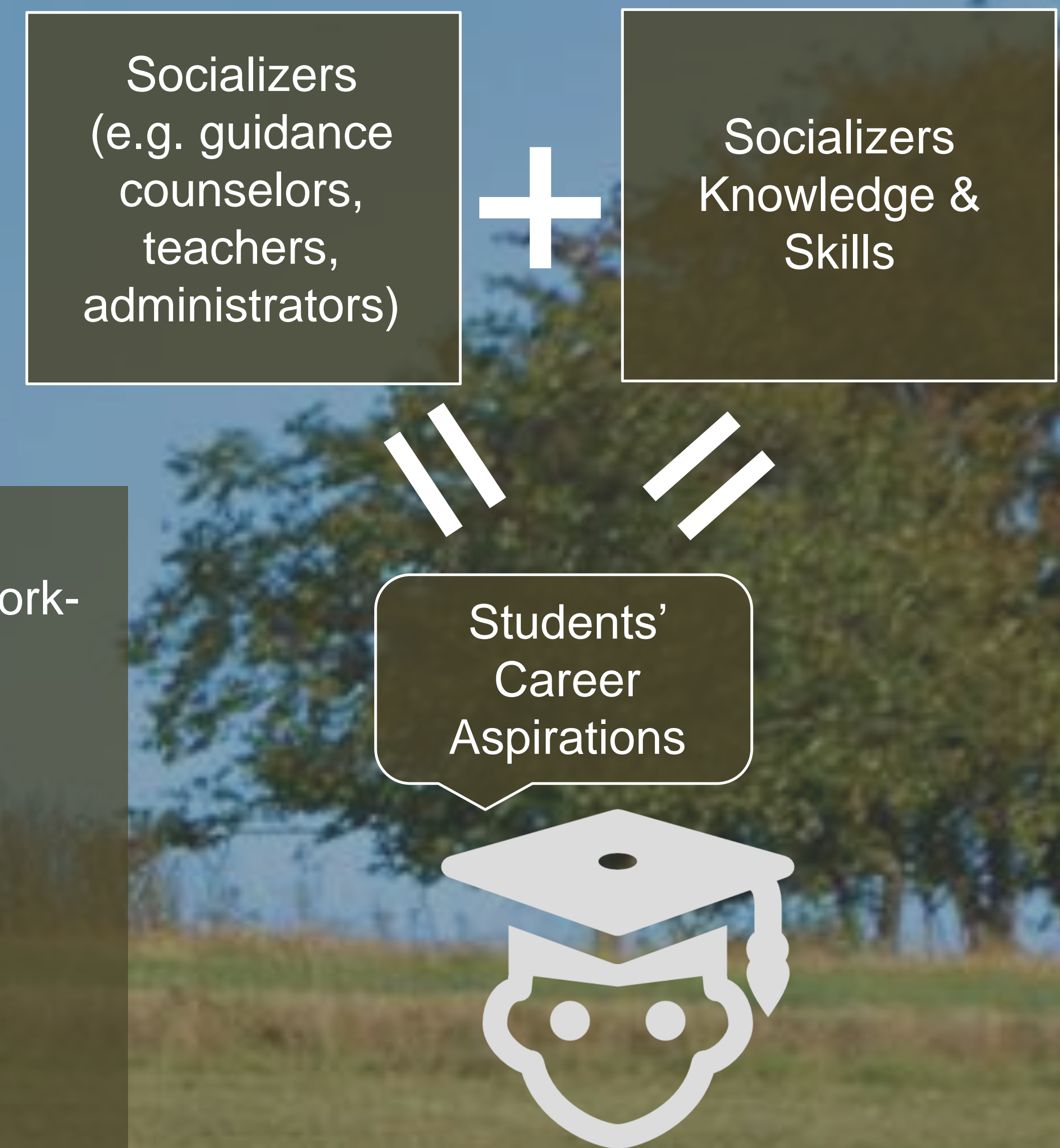
3. **Urban Agriculture**  
(MWDS=7.08)

4. **Water Quality & Environmental Sciences**  
(MWDS=6.11)

5. **Natural Resources**  
(MWDS=5.51)...

## Theoretical and Conceptual Framework

- Model of Career choice (Dick & Rallis, 1991)



## Conclusions

- Findings suggest secondary school educational professionals have little knowledge of AFNR careers, yet feel they are important.
- There is a need to provide these professionals with professional development opportunities about AFNR careers.
- Providing educational professionals with training in these areas related to AFNR careers can lessen misconceptions surrounding career opportunities for students in AFNR among administration and other educational professionals.

## Implications/Recommendations/Impact on Profession

- Similar research studies should be employed, including needs assessment research, exploring the perceptions of school professionals regarding AFNR careers.
- Agricultural education professionals should provide workshops to educational professionals related to the career opportunities in the areas of biotechnology in agriculture, UAVs in agriculture, urban agriculture, water quality, and more.
- By educating those who play a role in students' career decisions, more students can be prepared for careers in AFNR areas, and by so doing, adequately supply the agricultural industry with the qualified graduates they need to solve the complex problems feeding the world, promoting sustainable energy, and protecting and preserving the environment.