

"Final Report for the 2008 Teacher Retention Study"

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This study was conducted to create a longitudinal dataset to be utilized to highlight or predict trends within the beginning agriculture teachers in Illinois. Similar data was collected in the 2005-2006 and 2006-2007 academic years. Data was collected from the "Program Development for Entry Level Teachers in Agricultural Education" course (AgEd 500). The course began with 21 participants and ended with 21 participants by year's end, so the dataset was finalized with 21 usable surveys.

This study also collected demographic data. One such variable was gender. Of the 21 participants, twelve were male and nine were female. The study was also able to distribute an identification number for each participant to track the variation over time. The study collected data from the participants in August, October, January, February, and April of the 2007-2008 school year. The study collected perceptual data on the same 14 variables utilized in the 2005-2006 and 2006-2007 projects.

Participants were asked to assess their confidence levels on the following variables at the different time intervals:

- 1) Instructional preparation
- 2) Classroom management
- 3) Time management
- 4) Knowledge of subject matter
- 5) Classroom methodologies
- 6) FFA activities
- 7) Developing SAE's
- 8) Acceptance in the school
- 9) Acceptance in section
- 10) Acceptance in community
- 11) Confidence in signing a contract for the 2008-2009 academic year
- 12) Relationship with students
- 13) Administrative support
- 14) Safety

The first seven variables outline items within the agricultural education model, which illustrate three overlapping circles, which include classroom instruction, SAE activities, and FFA activities. The other seven variables outline items associated with environmental situations within agriculture programs, like acceptance in the community, section, and school.

The variable that received the highest confidence rating again for this study was their ability to sign a contract for the 2008-2009 academic year. The variable that received the lowest confidence rating again for this study was their ability to develop SAE's. Once again, the top four variables dealt with environmental situations surrounding the agriculture program. Time management, developing SAE's, and managing FFA activities hold some of the lowest confidence levels with this group. Administrative support also continues to be a variable that is sought after among beginning teachers in past studies, but this year's group ranked administrative support very high. It could be that the openings this year had administrators with strong support for their agriculture programs. This year's group appears to be more consistent in their confidence levels. They started with lower confidence levels and rose steadily over of the course of the academic year. This year's group also appeared to be very confident in their student relations, administrative support, and school acceptance. The variables are ranked from highest to lowest:

Rankings in the 2005-2006 study (N=31)

- 1) Confidence in a 2006-2007 contract
- 2) Relationship with students
- 3) Acceptance in community
- 4) Acceptance in school
- 5) Instructional preparation
- 6) Knowledge of subject matter
- 7) Acceptance in section
- 8) Classroom methodologies
- 9) Administrative support
- 10) Safety
- 11) Time management
- 12) Classroom management
- 13) FFA activities
- 14) Developing SAE's

Rankings in the 2006-2007 study (N=14)

- 1) Confidence in a 2007-2008 contract
- 2) Acceptance in section
- 3) Safety
- 4) Acceptance in school
- 5) Knowledge of subject matter
- 6) Classroom management
- 7) Relationship with students
- 8) Classroom methodologies
- 9) Acceptance in community
- 10) Instructional preparation
- 11) FFA activities
- 12) Time management
- 13) Administrative support
- 14) Developing SAE's

Rankings in the 2007-2008 study (N=21)

- 1) Confidence in a 2008-2009 contract
- 2) Acceptance in school
- 3) Administrative support
- 4) Relationship with students
- 5) Safety
- 6) Acceptance in section
- 7) Classroom management
- 8) Acceptance in community
- 9) Classroom methodologies
- 10) Instructional preparation
- 11) Knowledge of subject matter
- 12) FFA activities
- 13) Time management
- 14) Developing SAE's

The following tables illustrate the variable mean differentials between academic years and differentials throughout the academic year between groups.

Variable Mean Differentials During the 2005-2006 Academic Year (N=31)

Variable	October	December	February	March
Instructional preparation	7.22	7.74	8.05	8.45
Classroom management	7.26	7.52	7.36	7.84
Time management	7.26	7.37	7.68	8.07
Knowledge subject matter	7.26	7.59	8.14	8.45
Classroom methods	7.44	7.67	7.77	8.29
FFA activities	7.00	7.26	7.27	7.87
Developing SAE's	5.78	6.07	6.23	6.94
Acceptance in school	7.78	7.89	7.98	7.84
Acceptance in section	7.41	7.96	8.05	7.87
Acceptance in community	8.37	8.30	7.36	7.74
2006-2007 contract	7.78	8.11	8.32	9.23
Relationship with students	8.48	8.48	7.68	8.52
Administrative support	7.41	8.11	7.73	7.58
Safety	7.11	7.59	7.45	8.36
Totals	7.39	7.67	7.65	8.08

Variable Mean Differentials During the 2006-2007 Academic Year (N=14)

Variable	August	October	January	March	April
Instructional preparation	7.06	8.07	8.00	8.53	8.46
Classroom management	7.88	8.33	8.33	8.66	8.46
Time management	6.94	7.80	7.80	8.27	8.08
Knowledge subject matter	7.41	8.67	8.67	8.53	8.77
Classroom methods	7.82	8.07	8.07	8.60	8.54
FFA activities	7.35	7.80	7.80	7.87	8.23
Developing SAE's	6.76	7.13	6.87	7.53	7.46
Acceptance in school	8.32	8.97	8.33	8.20	8.31
Acceptance in section	8.12	9.40	8.60	9.00	8.92
Acceptance in community	7.82	8.60	8.07	8.30	8.15
2007-2008 contract	8.56	9.07	9.20	9.40	8.77
Relationship with students	6.77	8.40	8.47	8.73	8.77
Administrative support	8.29	7.27	7.40	7.53	7.69
Safety	8.88	8.40	8.60	8.73	8.69
Totals	7.71	8.28	8.16	8.42	8.38

Variable Mean Differentials During the 2007-2008 Academic Year (N=21)

Variable	August	October	January	February	April
Instructional preparation	6.71	7.50	7.65	7.52	8.28
Classroom management	7.62	7.50	7.50	7.71	8.38
Time management	6.19	7.05	7.20	7.14	7.85
Knowledge subject matter	6.67	7.33	7.60	7.66	8.28
Classroom methods	7.33	7.28	7.45	7.66	7.95
FFA activities	6.67	6.85	7.30	7.43	8.00
Developing SAE's	6.43	5.85	6.05	6.81	7.76
Acceptance in school	7.80	8.52	8.70	8.52	8.05
Acceptance in section	7.40	7.81	7.85	7.90	8.47
Acceptance in community	6.95	7.90	7.85	7.61	8.09
2008-2009 contract	8.62	8.66	9.05	9.05	9.00
Relationship with students	7.14	8.00	8.00	8.23	8.52
Administrative support	8.29	8.28	8.20	8.20	7.76
Safety	7.76	7.62	7.90	8.47	8.09
Totals	7.25	7.58	7.73	7.85	8.18

The 2006-2007 study did find a strong correlation between completing the AgEd 500 course and signing a 2007-2008 contract. This group started with 19 participants and ended with 14 participants. Those teachers that did not complete the course had a high correlation in not signing a 2007-2008 contract. However, this year's study did not possess this type of participant, because the study started and finished with 21 participants. The 2007-2008 participants ranked this variable highest, meaning that they possessed high levels of confidence that they would sign a 2008-2009 contract. The 2006-2007 study was also able to discover that females (8.45 overall mean) were more confident among the 14 variables than their male counterparts (7.87 overall mean). The highest overall confidence rating among participants was a male with a 9.47 overall mean and the highest overall confidence rating for a female was a 9.31. The lowest overall confidence rating among the participants was a male with a 6.09 overall mean and the lowest confidence rating for a female was a 7.43. The 2007-2008 group was more balanced in the confidence levels. The average confidence rating by the female participants was 7.547 and the average confidence rating by the male participants was 7.828. The highest ranked score by an individual was an 8.886 rating by a female participant and the lowest ranked score by an individual was a 6.428 rating by a male participant.

This study is instilling confidence in the Moir Model that indicates that beginning teachers start the year with the most confidence ready to accept their new found environment in the education field. They then drop off and then begin to build up confidence as the school year progresses. However, most of the variables analyzed in this study began at a lower confidence level and continued to rise as the school year

progressed, which is a positive indicator that they are gaining confidence. For instance, the lowest confidence level for “relationship with students” is in August. Beginning teachers may be less confident in themselves until they get into the classroom with their students. This is truly indicated in the variable “knowledge in subject matter”, which starts low and increases over time. Trends are beginning to take shape when comparing the two different groups. Developing SAE’s, time management, and managing FFA activities continue to be areas of need among beginning teachers. It is our hope to integrate more instructional activities in the area of SAE development and managing FFA activities with the 2008-2009 group in Ag Ed 500. An independent study course was completed by a graduate student to assist in these areas. The materials developed appear to be very useful in assisting beginning teachers in these areas.

This project also has the opportunity to evaluate other in-service graduate level courses offered by Western Illinois University. An evaluation survey was distributed to the participants in the Ag Ed 520 course that was offered in District 5 in 2007. The participants completed the survey prior to instruction and then again at the end of instruction to determine their comfort levels teaching specific areas of agricultural mechanics. There were 17 variables that were analyzed for this study. The variables are:

- 1) Teaching principles of electricity
- 2) Teaching electrical calculations
- 3) Teaching residential wiring
- 4) Teaching floor plans and symbols
- 5) Teaching wiring circuits
- 6) Teaching carpentry craftsmanship
- 7) Teaching completing wood projects
- 8) Teaching carpentry tools
- 9) Teaching wood frame construction
- 10) Teaching concrete construction
- 11) Teaching surveying principles
- 12) Teaching SMAW principles
- 13) Teaching GMAW principles
- 14) Teaching Oxy-fuel welding principles
- 15) Teaching precision measuring tools
- 16) Teaching principles of small gas engines
- 17) Teaching troubleshooting in small gas engines

Once the database was created and analyzed, it was found that 15 out of the 17 variables possessed significant differences when the two surveys were compared. The analysis indicated a positive difference between the comfort levels prior to instruction when compared to comfort levels after instruction. The participants in this course felt more comfortable with teaching 15 out of the 17 variables after instruction in this course. This is great news! The two variables that did not indicate significant differences were teaching wood frame construction and carpentry craftsmanship. It was found that this particular course was not able to construct a wood shed like previous AgEd 520 courses. This particular activity would have a direct impact on these two variables. The design and objectives of this course is to teach and then practice their knowledge on specific lab activities. Without having the ability to practice carpentry principles, participants felt less comfortable with teaching these variables. This study does not evaluate the residual effect of this course. This study could not evaluate if the participants actually went back to their programs and integrated their knowledge into specific areas of agricultural mechanics. It would be interesting to see if the participants did in fact go home and put into practice what they had learned from this course.