

IOWA STATE UNIVERSITY

Department of Agricultural & Educational Studies

Motivations to Teach and Plans to Continue Teaching for High School Agriculture Teachers in Iowa

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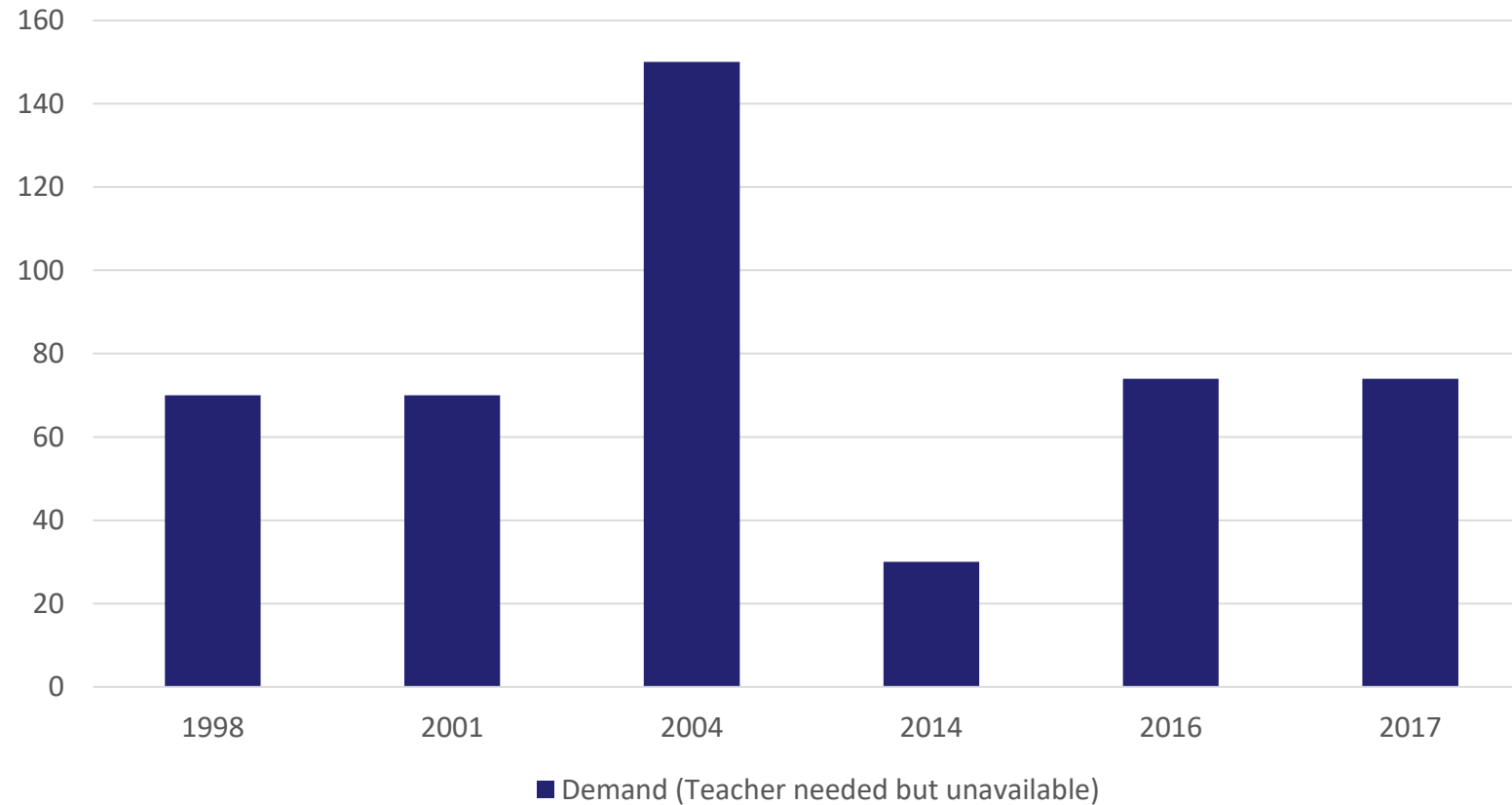
Quick Overview

- Background of Research
- Purpose of Study
- Literature Review
- Methodology
- Findings
- Discussion, Conclusion, and Recommendations

Background of the research

- Previous evidence & literature related to teacher retention in U.S
 - Reasons for teacher retention (*Billingsley & Cross, 1992; Weiss,1999; Adam,1996; Henke & Zahn,& Carrol,2001; Ingersoll,2001; Inman & Marlow,2004;Borman & Dowling, 2006; Guarino et al. 2006*)
 - National Agricultural Education Supply and Demand Study
- Priority 3 of the National Research Agenda focuses on creating a sufficient professional workforce that address the challenges of 21st century (*Roberts & Brashears,2016*)

National Study of Supply and Demand in Agricultural Education



(Camp, 2000; Camp, Broyles, & Skelton 2002; Kantrovich, 2007; Kantrovich, 2010; Foster, Lawver & Smith, 2014; Smith, Lawver, & Foster, 2016; Smith, Lawver, & Foster, 2017)

Purpose of the Study

(1) Determine high school agriculture teachers' motivations (*intrinsic, extrinsic, and altruistic*) to teach & (2) Predict three different teachers' plans to continue teaching.

Literature Review

Motivation factors to teach

Intrinsic

- Individual's interest in doing enjoyable activities (*Ryan & Deci, 2000; Hardre & Reeve, 2003; Reeve, Deci & Ryan, 2004*)
- Refer to agriculture teachers' feelings, desires, and incentives, which originate within the behaviour itself (*Dictionary of Behavioural Sciences, 1989*)
- Previous studies (*Reilly & Welton, 1980; Dinham & Scott, 1997; Ashideu & Scott-Ladd, 2012; Roness, 2011*).

Extrinsic

- Refer to the motivation that stems from positive or negative external reinforcement of agriculture teachers (*Dictionary of Behavioural Sciences, 1989*)
- Previous studies (*Rice, LaVergne & Gartin, 2011; Crutchfield et al, 2013 & Hellsten & Prytula, 2011*).

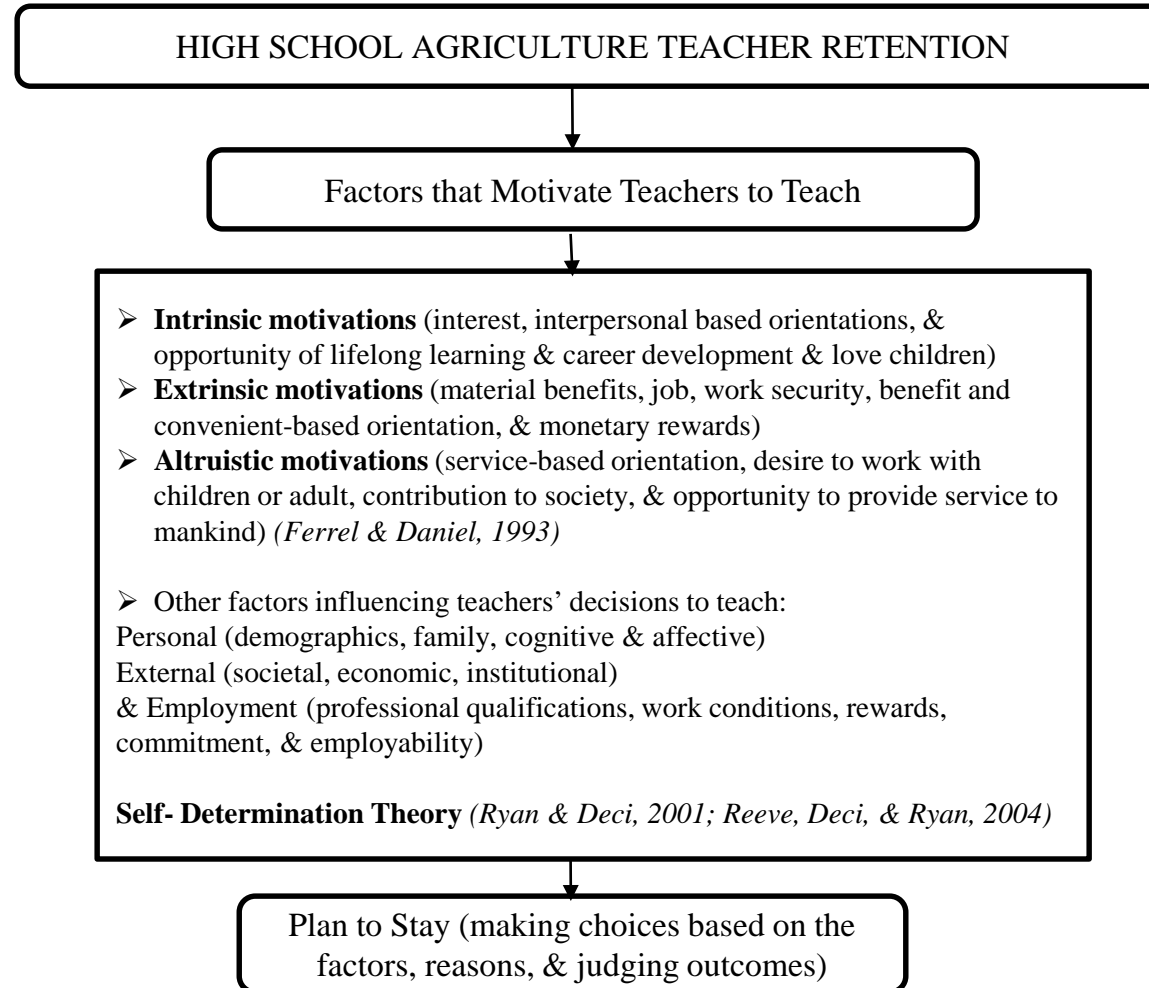
Altruistic

- Refer to behaviour performed voluntarily, must be a goal for itself and performed without expecting any external reward (*Bar-Tal, 1976; Berkowitz, 1972; Krebs, 1970; Leeds, 1963 & Staub, 1978*)
- Previous studies (*Brookhart & Freeman, 1992; Richardson and Watt, 2006; OECD, 2005 & Yu & Bieger, 2013*)

Teachers' Plan to Stay

Research on teachers' plan to continue teaching(*Adam, 1996; Henke & Zahn, & Carrol, 2001; Ingersoll, 2001; Hughes, 2012 ;Hanusken, Kain, Rivkin,2004*)

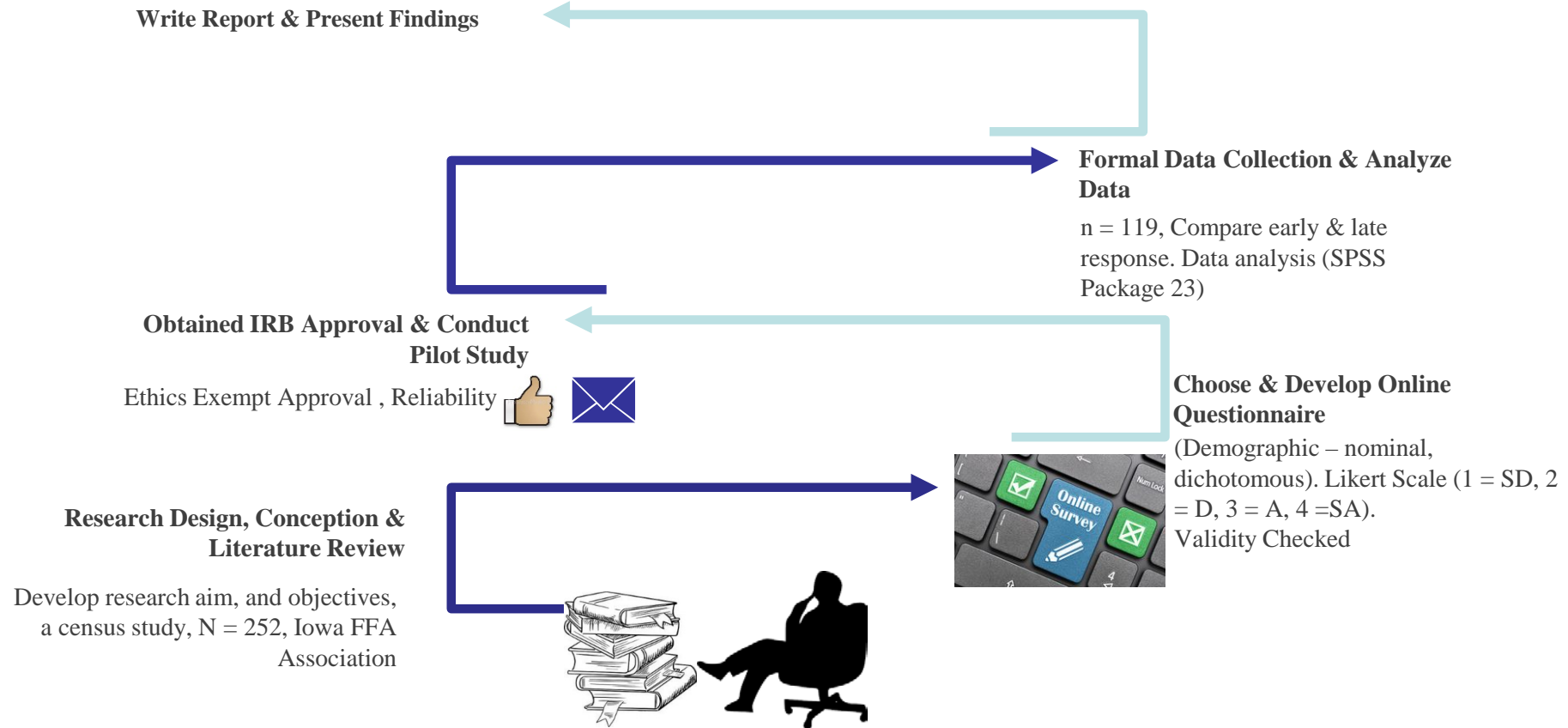
Summary of Literature Review



Method

Descriptive Research

Tailored Design Survey Method (*Dillman et al., 2009*)



Findings

Table 1

Descriptive Analysis for Age, Gender, Intrinsic, Extrinsic and Altruistic Motivation and Plan to Continue Teaching

Variables	Mean	Std. Dev	Minimum	Maximum
Demographic				
Age	38.15	13.12	21	65
Gender	1.53	0.50	1	2
Motivation Factors				
Intrinsic	3.26	0.32	1	4
Altruistic	3.18	0.36	1	4
Extrinsic	2.54	0.32	1	4
Plan to Continue Teaching				
1 to 5 years	44		37.0	
6 to 10 years	21		17.6	
11 or more years	54		45.8	

Findings

Table 2

Stepwise Multinomial Logistic Regression (Final model included significant variable at .05 level of significance)

<i>Plan to Continue Teaching Category</i>		<i>Estimate</i>	<i>SE</i>	<i>Wald</i>	<i>df</i>	<i>p</i>	<i>Odd. ratio</i>
6 to 10 years	Intercept	0.67	0.87	0.60	1	0.43	
	AGE	-0.03	0.02	2.70	1	0.10	0.96
11 or more years	Intercept	2.47	0.70	12.7	1	0.00	
	AGE	-0.06	0.02	11.6	1	0.00	0.94

Note: ($n = 119$). The reference category is 1-5 years. Model fit; Chi-square = 12.85; $p < .05$, Pseudo R^2 (Nagelkerke) = 0.12

Discussion & Conclusion

- Agriculture teachers had an average age of 38.15 years
- Intrinsic motivation ($M=3.26, SD=0.32$)
- Altruistic motivation ($M=3.18, SD=0.36$)

Teachers agreed these factors impacted their decision to teach

Corroborates previous research (*Hellsten & Prytula, 2011; Roness, 2011; Sinclair, 2008; Kyriacou et al., 1999; Manuel & Brindley, 2005; Manuel & Hughes, 2006; Brookhart and Freeman, 1992*)

- Extrinsic motivation ($M=2.54, SD=0.32$)

Not strongly impacted on teachers' decision to teach

- 45.8% planned to continue = 11 or more years
- 37% planned to continue = 1 to 5 years
- 17.6% planned to continue = 6 to 10 years

Discussion & Conclusion

- Multiple Logistic Regression Analysis
 - Predict Plans to Continue Teaching
 - Model was statistically significant ($\chi^2 = 12.85; p < .05$)
 - Age was a significant predictor ($p < .001$)
- Further Analysis
 - Substantial early career teachers planned to leave 1- 5 years
 - Older teachers more likely planned to teach to reach normal retirement age
- Findings are consistent with previous research
 - Considerable number of teachers planning to quit teaching after five or fewer years of experience (Hanusken, Kain, Rivkin, 2004; Kirby, 1999; Adam, 1996; Hughes, 2012)

Recommendations

- Induction Program
- Annual Mentoring Programs
- Annual Awards Program – recognized outstanding new teacher
- Network – Professional Organization, National Association of Agricultural Educators - Communities of Practice, Teach Ag Campaign
- High School Agriculture Teacher Professional Development Model & Mentoring and Induction Model
- Annual Survey of New Teachers, Mentors, and School Administration

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