

The Role of Socialization in College of Agriculture Master's Students Persistence in College¹

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Abstract

To investigate factors relating to academic and social integration as predictors of intention to persist for graduate students, College of Agriculture Master's students in U.S. campus and online degree programs were surveyed. Data were gathered using an online questionnaire. In addition to demographics, the questionnaire included three scales, academic integration, social integration and intention to persist. Academic integration was measured with the subscales of advisor relationship and academic interaction. Social integration was measured with the subscales of peer group support, faculty interactions and involvement in social interactions. The subscales for each scale were combined to create academic integration, social integration and socialization scores. Mean scores were formulated from descriptive statistics. Polychoric correlation was used to identify relationships followed by regression analysis with academic and social integration as predictor variables and intention to persist as the criteria variable. A significant positive relationship between academic integration and social integration was identified. A significant positive relationship was also identified between academic integration and social integration and intention to persist. Demographic variables were examined in relationship to the scales. Overall this study indicates that socialization as explained through academic and social integration is an important factor of persistence in College of Agriculture Masters Students.

Introduction

There are numerous studies on student persistence at the undergraduate level (e.g., Spady, 1971; Tinto, 1975; 1987; Bean, 1980; Bean and Metzger, 1985; Astin, 1993, 1973; Pascarella et al., 1993; Milem and Berger, 1997; Sadler, 1997) and doctoral level (e.g., Girves and Wemmerus, 1988; Carlson, 1995; Bauer, 1997; Bair and Haworth, 1999; Mastekaasa, 2006; Most, 2008). Through these studies many of the variables that affect whether a

student persists or drops out have been used to develop and test persistence models. However, master's level students have not received much attention. Is it because retention is not a problem at the master's level?

Cohen (2012) states, "Currently, the national six-year graduation rate for undergraduate students is 55.9% while doctoral student's ten-year graduation rate is 47-64%, depending on the field of study (U.S. Department of Education). While no national databases track the actual degree completion rate for master's degree students, the few studies of master's student persistence have found that degree completion rates for master's students range from 63% to 78% , depending on the number of years of study and the type of academic program" (Girves and Wemmerus, 1988; Luan, 1992; Xiao, 1998, p.3). Thus, although master's degree students finish their degrees at slightly higher rates than doctoral and undergraduate students, a third to a quarter of students will not complete their degree.

This study tested one student retention model - socialization - with master's degree students. Socialization is the process through which students learn how to behave and what it means to succeed or fail (Gardner, 2008). Socialization can be divided into two different constructs, academic integration and social integration. Social integration involves interpersonal relationships, support, interactions with others and a sense of belonging at a university (Spady, 1970; Tinto, 1975). Social integration stems from extracurricular activities, informal dealings with peer groups and interactions with faculty and staff (Tinto, 1975). When these activities are successful, they will help a student develop friendships, support, affiliation and channels of communication (Tinto, 1975). Eaton and Bean (1993) theorized that, "Social and academic integration can be considered to be primary indicators of adjustment to the college environment" (p. 9).

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Academic integration is described through grade performance and intellectual development. Grade performance reflects an ability to meet the standards of the academic system; intellectual development involves a student valuing their education as a process of development in which they gain knowledge and ideas (Tinto, 1975). Academic integration is key because it involves students becoming integrated into the academic system that will allow them to achieve their goal of becoming professionals in their disciplines (Lovitts, 1996).

The above models provide a basis for which to examine graduate student persistence. However, there are differences that need to be considered when examining graduate education versus undergraduate education.

First, persistence is likely to be influenced by the characteristics of a field of study (Tinto, 1993). Therefore, the pattern of persistence will be more similar among the same field of study across institutions than among different fields at the same university (Zwick, 1991). Also, social integration is much more closely tied to academic integration at the graduate level (Tinto, 1993). Students' social interactions with peers and faculty are closely linked with students' intellectual development. Social membership becomes part of a student's academic membership and, ultimately, membership in the student's field (Tinto, 1993)

Additionally, the goal of the process of socialization is different. According to Baird (1992) and Rosen and Bates (1967), the goal of graduate school is to take a raw scholar and turn him into an academic professional. This is achieved through instilling within him a large amount of specialized knowledge, while at the same time socializing him to the norms, values, ways of thinking and modes of discourse (Lovitts, 1996). Finally, the effect of the community changes over time (Tinto, 1993). For example, Tinto (1993) describes that for a doctoral student, persistence in the later part of the degree, which involves mostly research, is likely to be influenced by a single faculty member or a small group of faculty members. This is not so much the case in the beginning stages of a doctoral student's degree.

Academic and social integration have been linked to graduate student retention and success (Church, 2008; Gardner, 2008, 2010; Tinto, 1993; Valero, 2001). However, none of these studies has truly explored factors relating to socialization or social integration and graduate student retention within colleges that focus on Agriculture. Therefore the objectives of this study were to explore factors relating to academic and social integration of graduate students: specifically, do these constructs that are shown to explain persistence in undergraduate and Ph. D. students also explain persistence in College of Agriculture Masters Students?

Materials and Methods

For this study a survey method was used to collect data using a questionnaire type instrument. The

questionnaire was given to Master's students from various U.S universities. Students were surveyed using an online format of the questionnaire in Axio Survey (Axio Learning, Manhattan, KS). The Kansas State University Institutional Review Board approved the study protocol and all participants gave informed consent prior to participation in the study.

Instrumentation

Overall measurement of integration

The first subscale contained questions relating to student's academic integration. Lovitts (1996) identified that academic integration was influenced by participation in academic events and activities. Also having an advisor as well as the quality of a student's relationship with their advisor is critical in completing graduate school (Baird 1992; Lovitts, 1996; Rosen and Bates 1967). Therefore the two variables included in measuring academic integration were advisor relationship and academic participation. A mean score of the two variables was calculated to create an academic integration score.

The advisor relationship variable consisted of eight questions. The first, do you have an advisor consisted of a yes or no response. The remainder of the questions measured the quality of the relationship between the student and their advisor. These included questions such as: "my advisor advises me effectively" and "my relationship with my advisor has had a positive influence on my intellectual growth." They were adapted from Sorokosh (2004) and Little (2009) and had reported Cronbach's alpha reliability ranging from .81 to .96. Cronbach's alpha is a measure of internal consistency for a set of related items. A reliability coefficient of .70 or higher is considered acceptable in most social science research situations. The responses were based on a six point Likert type scale measuring extent of agreement with each statement.

The participation in academic interactions variable contained seven questions designed to measure the frequency students participated in academically focused interactions with others. The questions were adapted from Cardenas' (2005) questionnaire designed to measure doctoral student involvement. Some of the interactions asked about were "attended professional conferences or meetings" and "attended research seminars in yours or others disciplines." The reported overall Cronbach's alpha reliability of the instrument was .93. The responses were based on a six point scale, asking how often they have done various interactions. The responses ranged from "never" to "twice a week or more."

The second subscale of the instrument contained questions relating to social integration. The three variables included in measuring social integration were peer group support, faculty interactions and involvement in social interactions. A mean score of the three variables was calculated to create a social integration score.

The peer group support variable contained 11 questions designed to measure the strength and

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usefulness of student's support from their peers. Some of these questions were adapted from Sorokosh (2004) and Little (2009) and were found to predict intention to persist and to have a reported Cronbach's alpha reliability ranging from .81 to .96. The remainder was adapted from Donatellis' (2010) institutional integration scale with a reported Cronbach's alpha reliability ranging from .88 to .92. The variable included questions like "since starting this program I have developed close personal relationships with other students" and "few of the students I know would be willing to listen to me and help me if I had a personal problem." The responses were based on a six point Likert type scale measuring extent of agreement with each statement.

The faculty interactions variable contained 11 questions designed to measure the opportunities and ease students had interacting with faculty members as well as the impacts these interactions had on students. Some of these questions were adapted from Sorokosh (2004) and Little (2009), which were found to have a Cronbach's alpha reliability ranging from .81 to .96. The remainder were adapted from Donatelli (2010) and were found to have a Cronbach's alpha reliability ranging from .88 to .92. Students were asked to rate, on a six point Likert type scale, the extent to which they agreed with statements. Some statements were "I am satisfied with the opportunities to meet and interact informally with faculty members" and "faculty are very accessible."

The final variable was involvement in social interactions. This variable contained six questions designed to measure student's involvement in informal social interactions. Some interactions asked about were "attended informal dinners and get-togethers with other fellow students" and "met with students to talk about course work, plans of work and faculty." The questions were adapted from Cardenas' (2005) questionnaire designed to measure doctoral student involvement. The reported overall reliability of the instrument was .93. The responses were based on a six point scale, asking how often they have done various interactions. Finally, to measure a student's overall socialization, which includes academic integration and social integration, scores from the integration scales were combined into one overall mean score.

Intention to Persist Instrument

Several studies have found a link between intention to persist and student's actual persistence (Bean 1982, 1990; Faghihi and Ethington, 1996). Therefore a scale measuring intent to persist was included in the questionnaire. The scale consisted of five questions and responses were based on a six point Likert type scale measuring extent of agreement. Some questions included were "I am confident I made the right decision to enroll in this program" and "I am sure that I will complete this degree program."

Sample

The sample was drawn from students in College of Agriculture programs where there are equivalent campus based and online pathways of earning similar degrees. At the universities, these online and campus based programs have similar requirements, professors and structure. This project was part of a larger study on retention in similar campus-based and online programs. The programs were identified using online university and departmental websites. Seven universities containing relevant programs were identified, University of Nebraska, Texas Tech, Virginia Tech, Iowa State, North Carolina State, Texas A and M and Washington State. The programs included horticulture, agriculture, crop science, agriculture education, soil science, plant breeding, plant science and pest management focuses. A total of fourteen programs at six universities (Texas A and M declined to participate) were identified as fitting the criteria for participation in the study.

Data Collection

The instrument was pilot tested using Axio Survey. M.S. students in the Kansas State University Horticulture department received an e-mail asking for their participation. The e-mail included a link that took them to the questionnaire. Once they clicked on the link in the email they were taken to the beginning of the questionnaire. There they saw a statement with privacy information and were asked if they consented to be included in the pilot test for the study. They were then taken to the remainder of the questionnaire. After the data were collected Cronbach's reliability coefficients were calculated and a correlational matrix was constructed. Because the Cronbach's alpha's were all above 0.70 no questions were removed. Also, no patterns indicating that the scales were measuring different constructs were identified.

The national survey was, like the pilot study, offered online through Axio Survey. Once programs were identified, e-mails were sent out to the graduate directors of the programs (n=14). In some cases the same person was the director of both the online and campus program at the university; otherwise the e-mail was sent to both the campus and online graduate director. The e-mail included some information about the study and a request to forward a message and survey link to all the master's degree graduate students that were currently enrolled in their program(s). The e-mail also included a request for the graduate directors to respond as to whether or not they forwarded the message to their students and an e-mail address to contact if they had any questions. The message for the students and the link to the online survey was included in the bottom of the e-mail to the graduate directors. The message to the students also included some information about the study, a request for their participation, an incentive, which was a \$5 Starbucks gift card and a link to the online questionnaire.

One follow up e-mail was sent to the graduate directors with the same information and request for them to forward a message to all the students enrolled in their program. The message to the students included a reminder request, information about the incentive and a link to the online survey. Both the original and follow up e-mail were sent in the same semester. This process resulted in nine out of ten graduate directors forwarding the email request to their M.S. students.

As mentioned above, students received the invitation to participate in the survey through our email that was forwarded to them from their graduate director. Included in the email was a link to the online survey. Once students clicked on the link in the email they were taken to the beginning of the questionnaire. There they saw a statement with privacy information and were asked if they consented to be included in the study. Students were then taken to the remainder of the questionnaire. The questionnaire was completely anonymous. After the end of the questionnaire students were given the option to provide an e-mail address which would be used to send them their incentive. One reminder was sent. The total number of student responses was 54 and of these 42 surveys were complete and therefore usable. The total number of students receiving our email request was solicited from the program directors. Unfortunately, we were not successful in getting that from all program directors, thus we cannot determine response rate. In addition to not knowing the extent of the population we were drawing from, non-respondent bias is acknowledged.

Data Analysis

Data was downloaded from Axio Survey to Excel (Microsoft, 2010, Redmond, Washington) and then analyzed using Minitab® (Minitab, Inc, 16, State College, PA). Responses were coded such that a response of strongly disagree was given 1 point and a response of strongly agree, 6 points. A few statements were reverse coded with strongly disagree as 6 points and strongly agree as 1 point due to how the statement was written.

Descriptive statistics were used to formulate percentages as well as mean scores for the overall scales of socialization, academic integration, social integration, intention to persist and also on the subscales, advisor relationship, academic interactions, peer group support, faculty interactions and social interactions. Polychoric correlation was used to identify relationships between socialization, academic integration, social integration and intention to persist scales. Polychoric correlation was used because the ordinal variables were obtained by assigning categories to an underlying variable (agreement) that can be thought of as continuous. Coote (1998) stated that information gathered from Likert scales should be analyzed using polychoric correlations.

Because of the ordinal nature of the data, binary logistic regression was used (Elliot and Woodward, 2007) with the scales of academic integration, social integration and socialization as the independent variables and student’s intention to persist as the dependent variable to identify if any variables predicted student’s intention to persist. For this analysis, intention to persist was coded into a binary format. Because responses ranged from 3 to 6, a response of 3 or 4 was coded 0 for low and a response of 5 or 6 was coded 1 for high (Table 1).

Finally frequencies, analysis of variance and chi-square tests were run to determine if respondents program type, number of semesters enrolled, enrollment status, possession of an assistantship, total number of hours working for pay, gender or expected time needed to graduate, had any effect on the respondents’ scores on the research variables.

Results

Thirty-seven percent of the respondents were thesis-option students and 62% were non-thesis. Campus based respondents made up 48.8% of the sample, online 34.1% and mixed campus/online 17.1%. On average, 72.5% indicated they had been enrolled between two and five semesters. Sixty-two percent indicated they were full time, 37.5% were part time and 55% were on an assistantship. Including the work they

Table 1 College of Agriculture Master’s Students Responses^{z,y} to Statements from the Intention to Persist Instrument.

#	Statements	Mean	SD	Scale of Agreement											
				Strongly Agree		Somewhat Agree		Slightly Agree		Slightly Disagree		Somewhat Disagree		Strongly Disagree	
				# of 6’s	% of 6’s	# of 5’s	% of 5’s	# of 4’s	% of 4’s	# of 3’s	% of 3’s	# of 2’s	% of 2’s	# of 1’s	% of 1’s
1	I question whether I made the right decision to engage in graduate study	4.33	1.73	16	38	9	21	2	5	5	12	8	19	2	5
2	I am confident I made the right decision to enroll in this program	4.57	1.47	16	38	8	19	8	19	5	12	4	10	1	2
3	I intend to earn my graduate degree either here or at another university	5.60	0.86	33	79	3	7	5	12	2	5	0	0	0	0
4	I doubt that I can successfully complete requirements for this program	5.50	0.89	29	69	7	17	5	12	0	0	1	2	0	0
5	I am sure that I will complete this degree program	5.64	0.62	30	71	9	21	3	7	0	0	0	0	0	0

^z n = 42
^y Scores for all scales and subscales had a possible range of 1-6

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may do for their assistantship, 20% of students worked between 1-20 hours a week, 25% between 20 and 40 hours a week and 47.5% indicated they worked more than 40 hours a week. Fifty-four percent of the students also indicated the time needed for them to graduate was about what they expected, while 41.5% indicated it was more than they expected. Finally, out of the sample most (80%) answered they were White/Caucasian, 61% were female and 39% were male.

Out of a usable n of 42, the mean overall socialization score was 3.57. The mean scores for academic integration and social integration were similar at 3.5 (Table 2). The mean scores for the subscales varied. The academic integration subscales varied from 2.3 to 4.7. The social integration subscales varied from 2.3 to 4.4 (Table 2). The mean score for intention to persist was high, at 5.13 (Table 2). The range for all these scales was 1 to 6.

From the Polychoric analysis (Olsson, 1979) moderate to strong, positive correlations between academic integration and intention to persist ($r = 0.68$, $n = 42$, $p = 0.05$), between social integration and intention to persist ($r = 0.41$, $n = 42$, $p = 0.05$) and between academic integration and social integration ($r = 0.53$, $n = 42$, $p = 0.05$) were found.

From the logistic regression analysis several statistically significant relationships were found. There was a significant positive relationship between socialization and intention to persist (Table 3). This revealed that for every unit increase in the socialization score (from 1 to 6), it is 5.89 times more likely that there was a high intention to persist score. This model predicts 76.19% of the responses correctly and a Pseudo r^2 value of 0.28 indicates a moderate relationship between the variables. A significant positive relationship between academic integration and intention to persist was also found. The odds ratio indicates that for every unit increase in academic integration it is 3.33 times more likely that we will get a high intention to persist score. The Pseudo r^2 value of 0.22 indicates a moderate relationship with 76.19% of the responses being predicted correctly (Table 3). Finally, a significant positive relationship between social integration and intention to persist was discovered (Table 3). The odds ratio indicates that for every unit increase in social integration a high intention

to persist score was 3.54 times more likely. The Pseudo r^2 of 0.16 indicated that this was a weak relationship and that the model predicts 78.57% of the responses correctly.

Socialization was affected by if students were in a thesis program or a non-thesis program and how many hours a week they worked (Table 4). Students working less than forty hours a week and in a thesis program reported higher socialization. Differences in academic integration were found on the number of semesters enrolled and average hours worked per week. Students enrolled in four or more semesters and that worked less than forty hours a week were more academically integrated (Table 4). There was a moderate, significant negative correlation ($r = -0.32$, $n = 41$, $p = 0.05$) between academic integration and age. Differences in social integration were found for students completing a thesis vs. non-thesis, receiving an assistantship and average hours worked per week (Table 4). Students completing a thesis that received assistantships and worked less than forty hours a week were more socially integrated (Table 4). A difference in intention to persist was found on the demographic variable of amount of time needed to graduate, those who indicated that the time needed to graduate was less or the same as expected indicated a higher intention to persist (Table 4). There were no significant differences in academic or social integration or intention to persist by the number of semesters a respondent had been enrolled, whether they were enrolled full or part time, or by respondent's gender (Table 4).

Upon further examination it was found that respondents who worked between 1 and 40 hours a week were more likely to have an assistantship ($X^2 = 15.89$, $n=39$, $p=0.001$), be enrolled full time ($X^2 = 17.03$, $n=39$, $p=0.001$), be a campus student ($X^2 = 20.88$, $n=31$, $p=0.001$) and were younger (Table 5). On the other hand those who worked more than forty hours a week were older (Table 5), did not have an assistantship ($X^2 = 15.89$, $n=39$, $p=0.001$), were an online student ($X^2 = 20.88$, $n=31$, $p=0.001$) and were likely enrolled part time ($X^2 = 17.03$, $n=39$, $p=0.001$).

Table 2. Mean Scores^{z,y} for College of Agriculture Master's Students for Academic Integration, Social Integration, and Intention to Persist; and Advisor Relationship, Academic Interactions, Peer Group Support, Faculty Interactions, and Social Interactions.

Scale	Sub Scales		
	Mean	Mean	SD
Socialization	3.57		
Academic Integration	3.53		
		Advisor Relationship	4.70 1.63
		Academic Interactions	2.35 1.38
Social Integration	3.55		
		Peer Group Support	3.91 1.60
		Faculty Interactions	4.40 1.55
		Social Interactions	2.33 1.45
Intention to Persist	5.13		1.30

^z n = 42

^y Scores for all scales and subscales had a possible range of 1-6

Table 3. Regression matrix indicating the Binary Logistic Regression analysis^z (dependent variable = High) between overall socialization scores and intention to persist scores.

	Socialization	Academic Integration	Social Integration
Intention to Persist			
Coefficient ^y	1.77	1.20	1.27
Z ^x	3.05**	3.0**	2.53**
Odds Ratio	5.89	3.33	3.54
Model Chi-square ^w	14.29***	11.64***	8.36**
McFadden's Pseudo r ²	0.28	0.22	0.16
Correctly Predicted	76.19%	76.19%	78.57%

^zn = 42

^yCoefficients represent the change in the logit for each unit change in the predictor

^xZ represents the parameter significance

^wModel Chi-square represents the significance of the overall model

*, **, ***Significant at P= 0.05, 0.01, or 0.001 respectively using Logistic Regression Analysis

Table 4 Demographic analysis of the overall sample of College of Agriculture masters students by program type, semesters enrolled, enrollment status, assistantship, number of hours working for pay, gender and amount of time expected to graduation.

Demographic Variable	n ^z	Academic Integration Mean Score ^y	Social Integration Mean Score ^y	Socialization Mean Score ^y	Intention to Persist Mean Score ^y
Program Type					
Thesis	26	3.36	3.98	3.81	5.11
Non- Thesis	15	2.99	3.36	3.30	5.19
Total	41				
<i>P</i>		0.27	0.03*	0.05*	0.76
Semesters Enrolled					
1 to 3	20	2.90	3.74	3.54	5.16
4 or more	20	3.53	3.76	3.69	5.07
Total	40				
<i>P</i>		0.05*	0.93	0.58	.072
Enrollment Status					
Full Time	25	3.31	3.97	3.77	5.08
Part Time	15	3.02	3.41	3.36	5.21
Total	40				
<i>P</i>		0.38	0.07	0.13	0.61
Assistantship					
Yes	22	3.34	4.04	3.83	4.99
No	18	3.14	3.41	3.37	5.28
Total	40				
<i>P</i>		0.53	0.03*	0.08	0.26
Average hours worked per week					
1 to 40	20	3.55	4.10	3.91	5.15
>40	20	2.85	3.46	3.34	5.13
Total	40				
<i>P</i>		0.03*	0.03 *	0.02*	0.94
Gender					
Male	16	3.22	3.88	3.73	5.23
Female	25	3.24	3.68	3.55	5.08
Total	41				
<i>P</i>		0.99	0.50	0.49	.057
Amount of time needed to graduate					
Less or same as expected	23	3.35	3.86	3.74	5.37
Greater than Expected	17	3.08	3.74	3.55	4.86
Total	40				
<i>P</i>		0.40	0.68	0.44	0.04*

^z Number of respondents for each category varied due to non-responses.
^yRange for mean scores is 1-6
^{*}Significant at P=0.05 using ANOVA

Discussion

Students who were more academically integrated in their program and university are more likely to persist. These results support earlier research studies. Within academic integration, Tinto (1975) theorized that the decision to drop out is a “coping” response to a lack of fit between the student and the system and stems from, “*either insufficient intellectual development or insufficient congruency between the intellectual development of the individual and the normative climate of the academic systems (p. 106).*” Tinto (1993), Baird (1992) and Weiss (1981) also found that those social interactions which are academic in nature are linked with student intellectual development and persistence.

Additionally, Weiss (1981) found that out of all of a student’s relationships, the student-advisor relationship has a most critical role in a student’s persistence and commitment. Lovitts (1996) also theorized that an advisor is a critical resource for helping a student become socialized and integrated into their field of study and also provides valuable information about what is expected from the student and the way things work in the department and field (Lovitts 1996). Gardner (2007, 2010) also found that a student’s advisor can help students figure out how much independence is good

Table 5 Binary Logistic Regression analysis^z (dependent variable = > 40 hours) between age and hours worked.

	# Hours work per week
Age	
Coefficient ^y	0.46
Z ^x	2.47**
Odds Ratio	1.59
Model Chi-square ^w	18.67**
McFadden’s Pseudo r ²	0.36
Correctly Predicted	81.58%

^zn = 31
^yCoefficients represent the change in the logit for each unit change in the predictor
^xZ represents the parameter significance
^wModel Chi-square represents the significance of the overall model
^{**}Significant at P= 0.01, using Binary Logistic Regression Analysis

and provide support, which is often more important to students than having an advisor who was an expert in their field. Students in our study indicated a highly positive advisor relationship.

Students who were more socially integrated also showed a higher intention to persist. This supports findings from Weiss (1981) who demonstrated that the more faculty members a student knows professionally, the more likely a student is to have increased productivity, involvement and commitment. Gardner (2007, 2010) also supported the importance of faculty members in helping students gain needed skills and dispositions.

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Gardner (2010) theorizes that interactions with faculty members are important because they are the ones who initiate much of the development and also because students watch how faculty interact with each other in order to learn the norms of their field (Gardner, 2007). Students in our study reported positive interactions and relationships with the faculty in their programs.

Additionally, Gardner (2007) found that support is an important theme in the process of socialization of graduate students. Gardner (2007) found that support originates from two main sources, faculty and peers and that peer support was sometimes more important than faculty support and was important for students at all stages in a program. Beginning students mentioned peer support as what got them through the beginning of their program and students who were further along mentioned peer support as a way of gaining a clear picture of what is expected of you (Gardner, 2007). Students in our study reported slightly positive feelings of peer group support, however, their feelings of peer group support were lower than their relationships with advisors or other faculty members.

Overall, the data also showed that academic integration and social integration are associated with each other. When combined into an overall construct, higher socialization scores were related to an increase in intention to persist. For students in Master's Agriculture programs this model seems to support the literature that theorizes that academic integration and social integration complement each other and supports Tinto's belief (1993) that student's social and intellectual development are linked. The data also showed several demographics that may be important in a model of socialization. These demographics include whether or not a student has to complete a thesis, whether or not a student has an assistantship and the number of hours a student has to work per week. Further research needs to be conducted to investigate more in depth, the influence these variables may have on a student's socialization.

Summary

Academic and social integration have been shown to be important factors in graduate student persistence (Church, 2009; Gardner, 2008, 2010; Tinto, 1993; Valero, 2001). The findings of this study seem to support Tinto (1993) who theorized that the components of academic and social integration were related and intertwined with each other. These findings also support Lovitts (1996) who theorized that if students are separated from each other and from faculty, they cannot find the emotional support they need, they also cannot figure out how the system is supposed to work and they cannot voice their concerns (Lovitts 1996), placing everything on the students and their own resources. Overall integration, both academic and social, helps bind people to each other and their communities through an exchange of ideas, knowledge, impressions and feelings (Lovitts 1996).

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