

## The Relationship Between Student Teacher Heart and Career Intent

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### Abstract

*Students enter an agricultural teacher preparation program planning to teach agriculture. However, career intent appears to change during the preservice program for many students. The teacher's "heart" is the combination of a teacher's: mission, faith in teaching, caring for their students, and enthusiasm displayed in the classroom. There is no published research that examines the development of the teacher's "heart" and how it relates to career intent. Further, Palmer (1998) stated that teacher "heart" cannot be developed; only diminished. However, Peterson and Seligman (2004) stated that the virtues of care, enthusiasm, hope, faith, and mission can be developed. No published research exists to discern the "heart" of a teacher, its development or lack thereof, and its change during the preservice program. The purpose of this descriptive correlational study was to determine the level of a teacher's "heart". The study also investigated whether the level of the teacher's "heart" explained the intent to pursue a career in agricultural education. The study found at the conclusion of the student teaching experience, 26% of the variance in career intent was due to the level of the teacher's "heart". Over the period of the student teaching experience, the level of teachers' "heart" significantly increased.*

### Introduction/Theoretical Framework

The interaction between a teacher and a student in the classroom determines the quality and effectiveness of the instruction, and is often measured by student achievement. Above socio-economic status, educational level of parents, and the school in which the student was enrolled, the teacher has been identified as making the greatest difference, when considering the source of student achievement (Brophy & Good, 1970; Good, 1987; Good & Weinstein, 1986; Darling-Hammond, 1997; Alvidrez & Weinstein, 1999). Since teachers make the greatest difference, teachers are an invaluable asset to the learning experience. Palmer (Intrator, 2002) shared that:

Teaching, like any truly human activity, emerges from one's inwardness, for better or worse. As I teach, I project the condition of my soul onto my students, my subject, and our way of being together. The entanglements I experience in the classroom are often no more or less that the convolutions of my inner life. (p. 2)

In considering the teaching experience, the core human experience must also be acknowledged. In this study, the innate qualities a teacher possesses is referred to as a teacher "heart", in addition to their skills and perceptions that shape the teaching experience, and by extension, the experience of the learners they instruct. Each factor likely plays an instrumental role in the longevity and success of each teacher (Hoy, 2000; Tschannen-Moran, Hoy, & Hoy, 1998; Palmer, 1998).

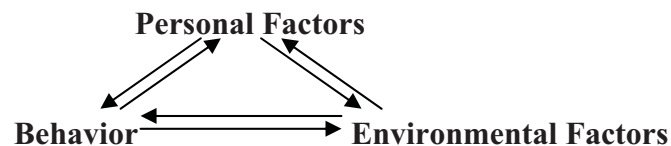
Initially, it appears that the number of undergraduate students enrolling in teacher education programs is promising in regards to meeting the expected shortfall in the teacher supply for the next decade (Kantrovich, 2007). However, through their preservice teacher preparation program experience, a very large number of students discontinue their quest to become teachers before they begin their first teaching job. The lack of program completers puts a major responsibility on teacher education programs across the country to retain and prepare preservice teachers to fill the positions.

The most recent national attrition rates available for preservice agricultural education teachers indicated that those teachers who became qualified to teach, compared to those who actually entered the teaching profession, was 59.4% in 2001 (Camp, Broyles, & Skelton, 2002), and was projected by Kantrovich (2007) to reach 53% in 2007. Further, Camp et al. (2002) found that 35 secondary agricultural education programs across the United States closed in 2001, 55 in 1998, and 41 in 1995 due to the lack of highly qualified teachers. According to Rocca and Washburn (2005) "...agricultural education literature provides little explanation of the factors that contribute to the teacher shortage" (p. 270).

The student teaching experience is the capstone in the preparation process to launch successful teaching careers. Pfister (1983) strongly believed that the student teaching experience had to be of the highest quality because it was the most important piece in preparing teachers. Thus, the changes that occur during the student teaching experience are central to the understanding of what makes quality teachers who have successful careers.

Palmer (1998) asserted that the "heart" of the teacher was the key to vitality of both the teacher and learner within any classroom. Korthagen (2004) identified the most central notion of a teacher's "heart" as the mission of the teacher. The teacher mission illustrated by Korthagen (2004) is similar to Palmer's (1998) "heart" of a teacher. Palmer suggested that the level of a teacher's "heart" cannot increase, but through discouragement and lack of edification, the level of a teacher's "heart" could decrease.

The theoretical foundation of this study was based upon Social Cognitive Theory (Bandura, 1986; 1997) and explains how personal factors such as the teacher's "heart", interacted with their environment. Further, individual's behaviors were shaped by the environment they encountered as well as the personal factors they possessed (Bandura, 1986; 1997). Social Cognitive Theory utilized a triadic reciprocity to illustrate (*Figure 1*) how behavior was shaped through personal and environmental factors. To tie these factors and behaviors together, Bandura theorized that people were producers and products of their environment (1986).



*Figure 1:* Triadic Reciprocity Illustrating Social Cognitive Theory (Bandura, 1986).

The Social Cognitive Theory can be utilized within the context of student teachers and their student teaching experience. Personal factors are characteristics that student teachers bring to the student teaching experience such as learning style, personality, gender roles, level of motivation, level of cognition, level of “heart”, and personal beliefs. Environmental factors are characteristics such as interactions with students, cooperating teacher(s), other faculty, administrators, and student’s parents. In addition, other environmental factors include school and community environments. Behavior is the observable action of the student teacher. Interaction between the three areas of personal factors, environmental factors, and behavior occurs constantly and simultaneously.

The interaction of personal factors, environmental factors, and behavior transcends into how a teacher teaches and who they are in their “heart” (Palmer, 1998). The Teacher Heart Model illustrated the components of a teacher’s “heart” in relation to the classroom environment in which the teacher interacted with the students. The Teacher Heart Model (*Figure 2*), developed out of Korthagen’s (2004) Onion Model (p. 80) by the researchers, which illustrated the environment interacting with the teacher’s behavior (first layer), followed by subsequent interior layers: competencies, beliefs, identities, and mission (at the core).

The teacher’s “heart” is the combination of a teacher’s mission, the teacher’s faith in teaching, the teacher’s caring for the students they teach, and the teacher’s enthusiasm they display in the classroom (Palmer, 1998; Intrator, 2002). The teacher’s mission is at the core of the teacher’s “heart”. The teacher’s mission underlies the teacher’s faith, in that what the teacher does, impacts the student’s lives for their future. The teacher’s faith in teaching underlies the level of care and enthusiasm observed in the classroom environment by students and evaluators. Within the model there are two areas within the teacher’s “heart”, the teacher’s inner-landscape (teacher mission and faith) and the teacher’s observable behaviors (caring and enthusiasm).

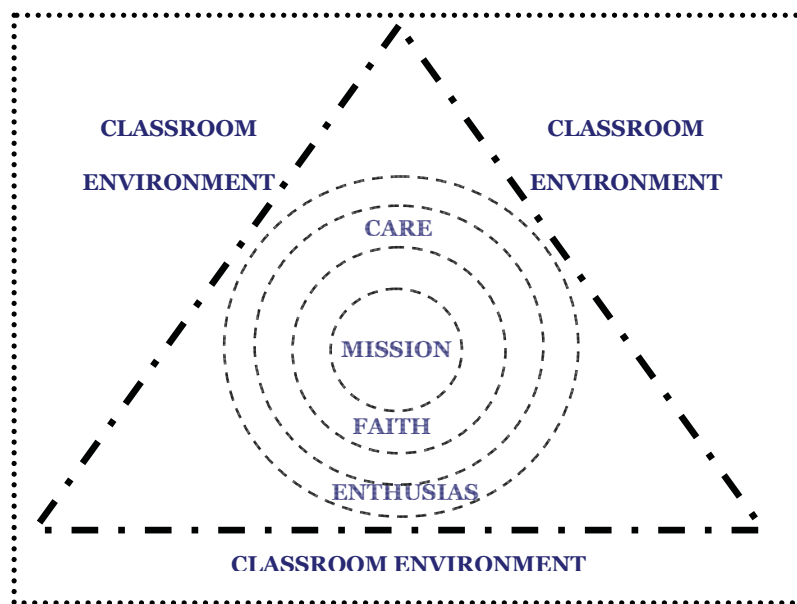


Figure 2: Teacher Heart Model.

While the source of enthusiasm comes from within, the related behavior is observable. Thus, a teachers' enthusiasm is tied to the investment in the hopes of ensuring that students become successful in learning in the classroom today, and for their future ahead (Intrator, 2002). A yearning and passion for teaching and maintaining that passion, and is a prerequisite to remaining in the profession for any length of time (Intrator, 2002). Effective teachers display a high level of enthusiasm (Rosenshine & Furst, 1971).

Another observable behavior of teachers is the level of care with which they treat their students. The quantity of care a teacher extends to the students is reflective of the degree to which the teacher believes the student's success depends upon the teacher (Intrator, 2002). Caring entails:

The assertion of a common humanity in which others are worthy of attention and affirmation for no utilitarian reasons but for their own sake. The affective or emotional ground of such kindness distinguishes it from a merely dutiful or principle-based respect for other persons" ... (example: caring) ... "that are not based on an assurance of reciprocity, reputational gain, or any other benefits to self. (Peterson & Seligman, 2004, p. 326)

The National Commission on Teaching and America's Future (NCTAF, 1996) proposed that by the year 2006, every child in America would have access to qualified, competent, and caring teachers. In addition to this report, the No Child Left Behind Act (United States Department of Education, 2002) followed-up on the NCTAF report by stating that a need existed to decrease the barriers that qualify people to get credentials and to increase the competence (subject knowledge) level people must have to join the teaching profession. Noddings (2001) shared that the amount a teacher cares for their students cannot be legislated nor coerced. However, care should be measured and used as one of several measures to allow or not allow entry into professional standing. Further, Noddings believed that the care a student receives is only as good as the level of care the student believed they receive.

In addition to the belief that teachers' efforts will benefit students in the future, they have a faith and self confidence that the advice given to students is correct. It is therefore desirable for students to seek out and accept advice. As Intrator (2002) stated, teachers enjoy the opportunity for "...young people [to] look to [them] for direction, support, and guidance" (p. xxxvi). Naturally, teachers with faith desire to make a difference in the lives of students and seek opportunities to interact for the purpose of enrichment (Intrator, 2002).

In terms of student teachers' career intent between the beginning and end of student teaching, no data existed that examined a change. With approximately only one-third of agricultural education qualified preservice teachers committing to teaching agriculture as a career in the recent past, establishing whether these students career intent changes is important. Negative changes, as a result of the student teaching experience, would warrant investigation into the student teaching experience itself.

## Purpose and Objectives

The purpose of this descriptive correlational study was to determine the level of a preservice teacher's "heart" and how these levels changed through the preservice student teaching experience. The study also investigated to what degree the level of the preservice teacher's "heart" explained the student teacher's level of career intent to enter a career in education.

The following research objectives guided this study:

1. Determine if changes in teacher "heart" occurred between post-spring term block, pre-student teaching experience, and post-student teaching experience.
2. Determine if change occurred in student teachers' career intent from pre-student teaching experience to post-student teaching experience.
3. Determine if the relationship between the levels of student teacher "heart" and career intent at the end of the student teaching experience.

## Methods and Procedures

This descriptive correlational study examined the level of student teachers' "heart" at three benchmark points (post-spring block, pre-student teaching experience, and post-student teaching experience) in their development as potential teachers. The population for this study was the 34 preservice teachers of who student taught in the fall at a Land Grant University ( $N=34$ ). This study only included one teacher preparation program, perhaps limiting the findings of this study.

The study utilized the Pulse of a Teacher (PT) Instrument. The PT instrument was developed by the researchers as an interpretation of the work by Intrator (2002) and Palmer (1998). The PT utilized an anchor scale on 20 items. The 9-point scale was anchored with a 1 = "none/nothing", 3 = "very little", 5 = "some", 7 = "quite a bit", and 9 = "a great deal". The instrument was reviewed by six teacher educators at three universities for face and content validity. To determine reliability, a group of 33 preservice teachers, none of which were in the study, completed the instrument. The overall reliability of the PT instrument produced a Cronbach's alpha of .77.

There were three points of measurement during the study. Point I (conclusion of the 2004 Spring Quarter block), Point II (1<sup>st</sup> week of the student teaching experience), and Point III (2<sup>nd</sup> week of November at the conclusion of the student teaching experience). At all three points of measurement, the PT instrument was administered to the student teachers, allowing 10 minutes to complete. At the third and final point of measurement, the group was asked to circle only one number for each of the following two questions: "Prior to your student teaching experience, on a scale of 1 to 10, how likely were you to enter a career in teaching?" and "Now that your student teaching experience is completed, on a scale of 1 to 10, how likely are you to enter a career in teaching?" The end of the scale with a corresponding 1 indicated "not likely at all" and the opposite end with a corresponding 10 indicated "highly likely".

The twenty items of the PT instrument measuring a teacher's "heart" were summated and then divided by 20 to give a summated mean PT score. To detect changes of teacher "heart"

between the three points (Objective 1): post-Spring block, pre-student teaching experience, and post-student teaching experience, analysis of variance (ANOVA) was used and set *a priori* at .05. To determine if change occurred in student teachers' career intent from pre-student teaching experience to post-student teaching experience (Objective 2), means were calculated for both pre and post student teaching experience. To determine if the level of student teacher "heart" influenced the student teacher career intent at the end of the student teaching experience (Objective 3), linear regression was utilized. Teacher "heart" was identified as the independent variable, and the dependent variable was career intent at the end of student teaching.

### Results and Findings

Objective 1 was to determine if changes in teacher "heart" occurred between Point I, II, and III. The group of student teachers' ( $N = 34$ ) "heart" score decreased between points I and II by -.0103, moving from 7.304 to 7.294, but increased over the student teaching experience (between points II and III) by .306, changing from 7.294 to 7.600. The "heart" scores increased between Point I and III by .296, changing from 7.304 to 7.600. *Table 1* represents the scores of teacher "heart" in the study.

Table 1  
*Teacher "Heart" Mean Scores Between Points I, II, and III.*

Measure	Point I to II	Point II to III	Point I to III
	▲ 1 <i>M (SD)</i>	▲ 2 <i>M (SD)</i>	▲ 3 <i>M (SD)</i>
Teacher "Heart"	7.294 (.678)	7.600 (.699)	7.600 (.699)
	- 7.304 (.713)	- 7.294 (.678)	- 7.304 (.713)
Mean Change	-.0103	+.306	+.295
Effect Size	.015	.450	.419

*Note. Scale: 1 = none/nothing, 3 = very little, 5 = some, 7 = quite a bit, 9 = a great deal.*

To determine if the Teacher "Heart" mean scores were significantly different between Points I, II, and III, a paired-samples t-test was completed for every set of points, set at the .05 level. Teacher "Heart" mean scores were significantly different between Points I and III, and between Points II and III, both at the .05 level. *Table 2* illustrates the levels of statistical significance for the Teacher "Heart" between Points I, II, and III.

Table 2  
*Statistical Significance Between Points I, II, and III on the Teacher "Heart" Summated Mean Scores.*

Measure	Points	Df	Significance (2-tailed)
Teacher "Heart"	I & II	33	.894
	I & III	33	.002*
	II & III	33	.003*

*Note. \*Significant at the .05 level*



Objective 2 was to determine if change occurred in student teachers' career intent from pre-student teaching experience to post-student teaching experience. The group ( $N=34$ ) increased its' desire to enter education as a career score from 8.18 to 8.82 on a scale of 1 = not likely at all, to 10 = highly likely. Pre-student teaching experience responses ranged from 2 to 10, while post-student teaching experience responses ranged from 1 to 10. *Table 3* represents the scores in the student teacher's career intent.

Table 3.  
*Career Intent from Pre-Student Teaching Experience to Post- Student Teaching Experience.*

		Career Intent		▲ In Response
		Pre-S.T.E. Point II	Post-S.T.E. Point III	Point III – Point II
Overall (N=34)	Mean	8.15	8.82	+.67
	S.D.	1.925	2.067	D = -.335

*Note. Likelihood of entering education profession: 1 = “not likely at all” and 10 = “highly likely”*  
*Note. \*Significant at the .05 level*

Objective 3 determined if the student teachers' level of “heart” influenced the student teachers' career intent at the end of the student teaching experience. The student teachers' “heart” mean score explained 26.0 % of the variance in explaining their career intent (*Table 4*).

Table 4  
*ANOVA of Teacher “Heart” Mean Score and Teacher Career Intent.*

	Adjusted R Square	F	Significance
Teacher “Heart” Mean Score	.260	12.605	.001

### Conclusions, Recommendations and Implications

The teacher “heart” mean scores significantly increased between Points I and III, and Points II and III. All “heart” mean scores indicated that the student teaching group had “quite a bit” of teacher “heart”. By employing the Teacher Heart Model, since the teacher “heart” increased over the student teaching experience, it can be projected that the level of care and enthusiasm in the classroom could be observed at the end of the student teaching experience.

Further research, following the current study's group of novice teachers through their careers would track the development of their teacher “heart”. In addition, investigating teacher “heart” at earlier transition points in the pre-service curriculum would also be beneficial in tracking development. Investigating the relationship between teacher “heart” and teacher burnout in relation to teacher experience would also be a worthwhile venture.

Utilizing the Social Cognitive Theory (Bandura, 1986, 1997), it can also be concluded that the student teachers' behavior and interaction within the classroom environment developed a positive change in the teacher “heart”. Although the actual factors within the teacher “heart” model through factor analysis are not known, we do know that teacher “heart” can be developed

and changed positively (Peterson & Seligman, 2004). Steps can be taken to improve and strengthen the teacher “heart. The question now becomes how much can teacher “heart” increase?

It is recommended that a factor analysis of the Pulse of a Teacher instrument be conducted. In order to perform factor analysis on the Pulse of a Teacher instrument, the instrument would need to be completed by a larger group of education professional, providing an adequate sample size of at least 300. Interpreting factors from the instrument will greatly assist the development of the Teacher Heart Model. Understanding the interaction between components of the Teacher Heart Model (Mission, Faith, Care, and Enthusiasm) will give better direction to teacher educators on how best to develop and sustain novice teachers in pre-service and in-service education.

It is also recommended that the Positive Psychology framework (Peterson & Seligman, 2004) be utilized to guide the interpretation of the emerging factors at the completion of the factor analysis. Catapulting novice teachers past the critical third year of their teaching career is essential. Since it is known that teacher “heart” is increasable (Peterson & Seligman, 2004), components of the Positive Psychology framework (Peterson & Seligman, 2004) shared within the Teacher Heart Model should be investigated.

At the conclusion of the student teaching experience, an overwhelming majority (88%) intend to enter education as a career. The level of teacher “heart” at the end of the student teaching experience explained 26% of the variance in the score of the group’s career intent to enter the education profession. This leaves 74% of the variance unexplained. Since the program has recently only had one third of the graduates enter the teaching profession, it does not align with 88% intending to enter the profession at the conclusion of the student teaching experience. Perhaps there are experiences or factors that contribute to much less than 88% of the candidates going into the profession.

It is recommended that future studies evaluating the potential connection between career intent and actual job attainment in education, and more specifically agricultural education, be completed. Additional research may reveal more information regarding the nature of career intent as it relates to teacher “heart”.

Further recommendations for this line of inquiry would be the utilization of the Pulse of the Teacher instrument as a counseling tool regarding recruitment and career redirection. High school teachers and counselors could administer the instrument to high school students who show potential for teaching. These students could easily be identified as participants with an Agricultural Education Supervised Agricultural Experience related to teaching, and those students participating in future educator student organizations. Teacher educators could administer the instrument before admitting students into professional standing in conjunction with an interview and screening of grade point average to provide a gate keeping mechanism. And lastly, if a pre-service teacher appears to be a poor teacher, perhaps re-administering the instrument to the individual may be in order. Based on the results of this follow-up, counseling the individual to redirect their career choice would be in everyone’s best interest.

As teacher preparation programs are charged with providing an abundance of highly qualified preservice teachers for successful careers, teacher educators must be keenly aware of the



teacher's "heart". Students need teachers: with a strong sense of purpose (mission), that have faith in what they are doing will make a difference, that deeply care about them and that are enthusiastic about what occurs in the classroom.

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