Using Educational Psychology Courses at a Military Academy to Help Foster Mentoring Relationships between Officers and Cadets

Andrew D. Katayama, Mark H. Jordan, and Camilo Guerrero

In the “hands on” mentoring program describing in this paper, cadets enrolled in a traditional undergraduate Educational Psychology course at the U.S. Air Force Academy were mentored by Air Officer Commanders (AOCs) enrolled in a graduate level Educational Psychology course. This mentoring program was ideal for both groups of students, as the mentors were all experienced military officers and the undergraduates were a year away from being commissioned military officers. This mentoring program was specifically designed to enable the graduate students to mentor the undergraduates by sharing both their educational and military experiences as they relate them to the theories and concepts we discussed in class. Evaluations were given at the mid-point and end of the semester to all of the students to assess their development and attitudes about their respective course. A combination of quantitative and qualitative methods was used to describe the students’ attitudes and applications of the course. In general, positive feedback about the mentoring process was received from both the mentors and the mentees.

Keywords: Educational Psychology, Mentors, Military Personnel, Professional Development

MENTORING

Various academic scholars have defined mentoring as a nurturing process in which a skilled or more experienced person, serving as a role model, teaches, sponsors, encourages, counsels a less skilled or less experienced person for the purpose of promoting professional development (see Lee, Theoharis, Fitzpatrick, Kim, Liss, Williams, Griswold, & Thomas, 2006). More specifically, Portner (1998) defines a mentor as someone who helps you and shows you the ropes of your surroundings in a new working environment (e.g., college professor, family member, co-worker). For example, in education, mentors tend to be experienced teachers who support colleagues and help those who are new to the profession to become acclimated to the everyday activities that take place in the schools. Ultimately, such mentors can help their mentees by encouraging them and helping them become better teachers (Mullen, 2000; Newton, Bergstrom, Brennan, Dunne, Gilbert, Ibarguen, Perez-Selles, & Thomas, 1994).

In Education

In recent history, educational reform has been spearheaded by the concept of mentoring, which has been an important vehicle for educational advancement. During the Clinton administration, it was reported that more than 30 U. S. states had implemented some type of mentoring experience for beginning teachers as a part of their teacher education programs (Portner, 1998). In response to this challenge, increasing numbers of educational programs recruited experienced teachers to mentor pre-service teachers and help first year teachers develop beyond their first year experience (Maynard, 1997). Additionally, both the National Education Association (NEA) and the American Federation of Teachers (AFT), the nation’s largest teachers’ unions, have called for the establishment of peer review and assistance programs under which all beginning teachers would be assigned a mentor. More recently, a review of over 300 research articles in the area of education has identified the tremendous need and opportunity to provide more effective mentoring programs within our educational system, especially as we train teachers who may not have a background in teacher education (Ehrich, Hansford, & Tennent 2004).

In Other Fields

Mentors in any setting or profession can build and maintain relationships with their mentees based on mutual respect, trust, and professionalism (Newton et al, 1994) while engaging in a partnership for learning and instruction (Mullen, 2000). In a second part of the mentorship, reported to be more difficult, mentors wean their mentees away from dependence by guiding them through the process of reflecting on decisions and actions for themselves and encouraging the mentees to construct their own informed teaching and learning approaches (Portner, 1998). Therefore, a “good” mentoring program should help the mentee assess his or her personal and professional interests in the light of actual experiences and plan for professional development and adaptations (Haack, 2006). For instance, IBM has used a mentoring model for
building their Global Services department for the past twenty years (Gongla & Rizzuto, 2001). Following IBM’s success with its mentoring program, several Fortune 500 companies have implemented their own mentoring and coaching strategies to help develop and maintain high levels of performance (Hegstad & Wentling, 2004). Mentoring and coaching programs have also been successfully implemented in other professions such as nursing (Hom, 2003), higher education (Katayama, 2001), and agricultural industry (Hulela & Miller, 2006).

In the Military

Given the success of mentoring programs in these areas, perhaps it comes as no surprise that military organizations have also embraced a variety of mentoring programs as well (Hunsinger, 2004; Payne & Huffman, 2005). In fact, over the past two decades mentoring programs have established a niche in military leadership programs (Baker, Hocevar, & Johnson, 2003). The U. S. Air Force publishes Operating Instructions (OI) that provide specific guidance on mentoring and requires all supervisors, raters, and evaluators to be familiar with these guidelines. The Air Force mentoring program was initially established to bring about a cultural change in the way in which professional development was viewed, and the U. S. Air Force Academy (USAFA) sees mentoring as an essential ingredient in developing well-rounded, professional, and competent future leaders (AFOI 36-3401). Accordingly, a mentor is “a trusted counselor or guide” and mentoring occurs within “a relationship in which a person with greater experience and wisdom guides another person to develop both personally and professionally” (AFOI 36-3401).

At the Air Force Academy

There are several mentoring programs that follow these guidelines at the Air Force Academy, which is considered by many as the Air Force’s premier academic and training institution. Although most of these programs are developed and carried out by the cadre training wing of the Academy, there are a few programs that include an emphasis on academic and intellectual development among its future officers. This study focuses on one of the current academic mentoring programs, involving mentoring relationships established between undergraduate cadets at the U. S. Air Force Academy and master level Air Officer Commanders (AOC’s) who were taking an Educational Psychology for Leaders course as an elective to fulfill their requirements for a Master of Arts in Counseling and Leadership degree.

Our study incorporated Manthei’s (1990) recommended criteria to evaluate the

successfulness of this mentoring program implemented at the USAFA. Manthei (1990) asserts that three characteristics are essential in building a solid mentoring relationship: (1) collegial and ongoing, (2) presents personal dialogue on how humans learn, and (3) helps to develop self-reliance for the mentee and self-assurance for the mentor. Using Educational Psychology courses at the USAFA as the platform for this program, we saw ways to incorporate the three aforementioned objectives by engaging the mentor and mentee with meaningful experiences that help bridge the theory-practice gap as proposed by Smith, Malkani, and Yun Dai (2005). Instead of using outlines and dilemmas, we decided to use discussions and mentor/mentee group activities to promote vicarious teaching and learning experiences.

In the Present Study

While it may seem a bit extraordinary for a military academy to offer a course in Educational Psychology, it is in effect quite appropriate in meeting the intellectual and professional needs of developing officers. This is especially true when incorporating Vygotsky’s notions of the Zone of Proximal Development (ZPD) and scaffolding (Wood & Wood, 1996). We believed that our cadets could learn significantly from both classroom instructors and mentors, especially when the mentors often have more military experience than the classroom instructors. Therefore we incorporated a semi-formal mentoring program into our courses, to allow cadets to benefit not only from their classroom instructors’ expertise but also from the different, but equally valuable, expertise of an AOC with years of hands-on experience in the operational Air Force. While the nature of the relationship between AOCs and cadets is traditionally a “military” one, it certainly can be an academic or intellectual relationship as well. The AOCs are looked up to as “role-models” who have demonstrated how to have a successful military career. The less-emphasized factor is that the Air Force also expects these highly decorated officers to advance their knowledge by obtaining a graduate degree. Being selected as an AOC at the United States Air Force Academy is a highly selective process, so it is generally perceived as a highly regarded assignment, since the Air Force usually reserves these spots for highly accomplished officers (Majors). One of the great “perks” of being selected as an AOC at the USAFA is that the Air Force pays for each selectee to obtain a Masters of Counseling degree while they are on assignment at the USAFA. Completing their graduate degree is their primary duty in their first year of the program. The following two years are spent as the Commanding Officer for a cadet squadron where
they fulfill the role of military mentor and advisor. Therefore, a first year mentoring experience also educates the new AOCs on how they will be expected to mentor over 100 cadets in their squadrons when they assume command the following year.

For the purpose of our study, we were interested in studying the AOCs during their first year of their program (when they were enrolled in the graduate Educational Psychology class) to see how effective they were at academic mentoring as well as professional mentoring (military) with the cadets enrolled in the undergraduate Educational Psychology course. For this study, we define mentoring as "a relationship based on mutual respect, trust and professionalism where both parties of the relationship gain knowledge to further their development in their respective careers" (Allen & Eby 2006; Ragins, Cotton, & Miller, 2000).

This study focused on the following research questions: (1) Could we implement a mentoring program with a small number of cadets and officers at the USAF Academy that would allow them to learn together the principles commonly covered in Educational Psychology and (2) can the mentoring relationship help foster officer development at the Air Force Academy?

**METHOD**

**Participants**

Participants in our study consisted of six cadets at the United States Air Force Academy (USAFA) and six Air Officer Commanders (AOCs) enrolled in a Masters program in counseling and leadership as part of their joint graduate program with the USAFA, the Air Force Institute of Technology (AFIT), and the University of Colorado at Colorado Springs (UCCS). Cadets all had attained upper-class standing and ranged in age from 20-23 (M = 21.5). There were three male and three female cadets, all enrolled in Behavioral Science 470, the undergraduate Educational Psychology class. This class was an elective that served to fulfill the requirements for graduation at the Air Force Academy. The AOC Master's students ranged in age from 34-37 (M = 35.8). All AOCs carried the military rank of Major with an average of 12 years military experience. Of the six AOC's, three were male and three were female. The AOC Master's students were all enrolled in Teacher Education (TED) 522 as an elective to fulfill requirements for their graduate degree. All participants volunteered to take part in this semester-long project.

While there is no overwhelming evidence to suggest same-sex mentoring is optimal in either formal or informal settings (Bailey, 2003), we chose to keep the mentoring teams within the same gender simply because women in the Air Force and the Air Force Academy continue to have unique experiences and challenges in this traditionally male-dominated culture. Thus, we thought perhaps our female participants would benefit most from a same-sex mentoring relationship as they discussed class topics and issues pertinent to the profession of arms (Hunsinger, 2004).

**Procedure**

At the very beginning of the semester, we briefed both the cadets and the AOCs about the intention of this mentoring program. We emphasized that this program was not just about learning Educational Psychology principles together, but more an opportunity to build and sustain a professional relationship where qualities needed to become an Air Force officer could be learned and developed in and out of the classroom setting. We told the participants that this could only be done by breaking down some of the barriers that exist within the hierarchical structures common to the military. Only by building a collegial relationship would we be able to successfully implement a mentoring program between two groups of people who resided in two entirely different structures. At first the cadets were a bit intimidated by the prospects of being mentored by a uniformed superior, a Major and soon-to-be commander of a cadet squadron. However, after the initial meeting, the cadets immediately realized that this program would allow them to see their mentor as “real people” with “real experiences” rather than just “high ranking” military officers.

The mentoring program consisted of both formal mentoring activities (see Allen and Eby, 2006) as well as informal activities (see Dubois & Silverthorn, 2005). By design, we required every mentoring team to complete two formal activities during the semester: one at the beginning and one at the end. We also required the mentoring teams to complete three additional informal activities sandwiched in between the formal activities. We provided a list of informal activities for them to consider, but also welcomed participants' suggestions of other possible informal activities (e.g., a “ladies night out” to discuss gender issues within the Air Force). Essentially, the three informal activities were left completely up to the mentoring teams to decide on by the fifth week of class. We felt strongly that the participants should have considerable input in deciding what the informal activities should be in order to foster higher intrinsic motivation (Chao, Walz, and Gardner, 1992). Even though the three additional activities were required in the course, there was nearly 100% latitude for the teams to construct their own activities as they
saw fit and to suit their career ambitions (e.g., flying, intelligence, personnel). Appendix A presents the breakdown of formal and informal mentoring activities that took place during our study (modified from the students’ course syllabi).

**Data Collection**

All data were collected by the authors. Surveys at the mid-point and the end-point of the course were administered by the course instructor. The first survey was handed out in class at the mid-point, and the students were allowed to take it outside of class to complete and turn it in at the next class period (two days later). The second survey was handed out on the second-to-last class period and was due back on the final class meeting. Because we knew we wanted to gather identifiable information for each participant, we were not interested in maintaining any sort of anonymity with the data. For instance, on the survey itself we asked each participant to identify their corresponding mentee/mentor. This enabled each participant to openly write about their experiences with their mentee/mentor by name and also simplified our task in pairing up responses by team.

**RESULTS**

The research questions of this study addressed both the process of implementing a mentoring program with a small number of cadets and officers at the USAF Academy to allow them to learn together the principles commonly covered in Educational Psychology and ways in which the mentoring relationships helped foster officer development at the Air Force Academy?

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<tr>
<th>Table 1. Summary Results from the Mid-Term and End of Course Evaluations</th>
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<td>Selected Items/Questions (concerning the outcomes of the study)</td>
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<td>1. Course organization and mentoring activities were organized:</td>
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<td>AOC’s</td>
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<td>2. Clarity of the course objectives and expectations were:</td>
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<td>3. The degree to which the course met the stated objectives concerning mentoring practices were:</td>
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<td>4. The degree to which creative problem-solving activities were used in the course was:</td>
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<td>5. Reasonableness (difficulty and amount) of assigned mentoring activities was:</td>
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<td>6. Intellectual challenge and encouragement of independent and collective thought were:</td>
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<td>7. Overall quality and usefulness of the course text(s) were:</td>
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<td>8. Overall quality and usefulness of the course activities were:</td>
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<td>9. Evaluative and grading techniques (tests, papers, projects, portfolios) were:</td>
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<td>10. Relevance and usefulness of the course content was:</td>
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A 6-point Likert type scale was used: 1= very poor, 2=poor, 3= fair, 4=good, 5=very good, 6=excellent
Results indicate that both the cadets and the AOC master students gained valuable experiences throughout the mentoring program. Descriptive statistics from the quantitative questions on the course evaluation survey are summarized in Table 1; clearly, most participants found the course overall to be useful and satisfying. Responses on the written portion of the course evaluations were mainly positive with regard to the mentoring program. Among the AOCs, 86.6% (26 out of 30) of the responses were positive. Among the cadets, 80% (24 out of 30 responses) were positive. After looking over the "type" of responses given by both groups, two obvious patterns stood out: 1) Among the AOCs, the more feedback they provided the instructor on the surveys, the more positive were their responses, and 2) the AOCs by and large provided significantly more feedback (M = 3.5 pages per survey) than did the cadets (M = 2 pages per survey).

We acknowledge that there are some obvious biases that enter into these results. The fact that the participants were engaging in the mentoring activities in order to receive course credit could have definitely influenced the relationships between mentors and mentees in ways that may not have occurred in a "non-graded" environment. Similarly, there are inherent personality variables that could have impacted the participants' experiences in a study like this, variables difficult to tease out. While it is indeed difficult to assess how either of these factors affected the outcome, we see the study as supporting the potential value of such programs in the academic military environment, while recognizing the need for caution in generalizing the results beyond this particular pilot group. Clearly, these results are merely descriptive rather than prescriptive. However, we are convinced that the mentoring group interaction enhanced the transfer of learning in this particular professional context (as explained by Jeffries and Maeder, 2006) by providing a more genuine context for creative and critical thinking. The following comments, drawn from surveys completed by both AOCs and cadets, highlight several common themes that support our conviction:

1. WERE YOUR MENTORING EXPECTATIONS MET IN THIS CLASS? EXPLAIN.

AOC: This mentoring experience exceeded my expectations. From the first day I met with Cadet T, she was very open and excited about having a mentor. This was a relief for me because on some level I expected she might be a bit apprehensive or just going through the motions because mentoring was part of the class criteria. It turned out that Cadet T wanted to use my experience to help her and I really liked that. She even wants to continue our meetings after she returns from Summer Research because she really wants to ensure she is prepared for active duty and has some questions she would like answered from a female officer perspective. I look forward to our meetings.

CADET: Yes, my mentoring expectations have been met in this class. I learned a lot from Major O and just talking with her made me more excited to enter the Air Force. I always enjoy listening to people's stories in the AF and see what they learned from or how they reacted in a certain way. I also hope to have taught her what cadets here are really like and what to expect during her years as an AOC. We were also able to work very well with my presentation and with the relationship we built; we trusted each other to get our part of the work done.

Common theme: The expectations were met as perceived by both the AOCs and cadets.

2. WHAT WAS THE BEST PART OF BEING INVOLVED IN THIS MENTORING PROJECT?

AOC: The best part of the mentoring experience for me was being able to work one-on-one in a flexible way with a cadet. I really enjoyed being able to meet with the cadet in settings that were convenient for the both of us (this really help facilitate the relationship). In the end I learned more about what the cadets struggle with in the cadet wing.

CADET: The best part was being able to understand the Air Force system in a new perspective, partly in the eyes of an experienced major with 14 years of experience. Before this semester, I was a little nervous and unsure of what to expect beyond graduation from USAFA, but now I have a better and clearer picture of what I will encounter.

Common theme: Both the AOCs andCadets walked away from the project with a better understanding of what to expect when they assume their new positions next year.

3. WHAT IS ONE THING YOU WOULD DO DIFFERENTLY TO IMPROVE FUTURE PROJECTS?

AOC: Try to get all the cadets and Mentors together at the end of the semester for a discussion of lessons learned and what they liked/didn't like about the mentoring process. This would give you good...
feedback, but would also be educational for everyone else.

CADET: I definitely recommend bringing the AOCs into class within the first couple of lessons, and then let us know very early who our mentors will be. I believe it would be beneficial to meet more than the required three times. I would have like to meet with Major K a little more, and not necessarily have a required item to talk about.

Common theme: Participants desired more opportunities to talk, discuss, and get feedback from one another.

4. WHAT WAS YOUR FAVORITE MENTORING ACTIVITY AND WHY?

AOC: I liked when we went to the Jaime Escalante talk at UCCS because it was fun to hear someone we had studied talk in person. Also, we went out to Boston Market afterwards for dinner and just got to talk about a lot of things, which was nice to get others' thoughts on different topics.

CADET: Definitely the trip to Buckley (Air Force Base) because we actually got to see pilots and other officers doing their jobs; not just hearing about it from a Major sitting behind a desk.

Common Theme: Informal bonding outside of the typical classroom setting.

DISCUSSION & CONCLUSION

Again, this study focused on the following research questions: (1) Could we implement a similar mentoring program with a small number of cadets and officers at the USAF Academy to allow them to learn together the principles commonly covered in Educational Psychology, and (2) Could the mentoring relationship help foster officer development at the Air Force Academy?

Even though it may seem a little incongruous for a military academy to offer courses in Educational Psychology, the course provided the impetus for a meaningful relationship to be formed between a mentor and a mentee while advancing the needs of a developing officer in terms of intellect and professionalism. Our study has gathered descriptive evidence to suggest that this combination of a formal and informal mentoring has allowed our participants to achieve the three elements of a successful mentoring program as recommended by Manthei (1990) and refined by Lee et al (2006). First, the mentoring was collegial and ongoing (based on respect and lasting through the semester). Some of the relationships continued even longer, with some of the cadet participants reported via email that they continued to seek advice from their former mentors about military and educational issues even post graduation. As a side note, we must say that receiving courtesy copies of emails from former students (both mentors and mentees) showing their mentoring relationships enduring beyond the course really confirmed our beliefs on the value of mentoring in Educational Psychology! Second, the mentoring relationship afforded personal dialogue on course related content (e.g., constructivism, information-processing, learning and instruction, assessment). Third, this program helped to develop self-reliance for the mentee and self-assurance for the mentor, thereby contributing to an effective mentoring relationship (Lee et al, 2006). Even though it took some time to develop these relationships, the participants were able to overcome initial differences in rank and experience (or lack thereof), and really rely on each other to accomplish the objectives of the course. Overall, this program provided a win-win-win situation for all involved: cadets, mentors, and the instructor. As part of the future of Educational Psychology at the United States Air Force Academy, this mentoring program should be seriously considered as an instructional system to help reinforce learning and professional development.

REFERENCES


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APPENDIX A

“Formal” Mentoring Tasks (Required for all mentoring teams)

- Review your “Philosophy of Leadership” with your cadet mentee
  - Use cadet mentee as a sounding board
  - Share with the cadet the origins and rationale of your philosophy
  - Relate your philosophy to the Officer Development System at the Air Force Academy
- Work together with your cadet and help them with their Behavioral Science 110 presentation at the end of the semester
  - Research the literature together (library and on-line)
  - Play “Devils Advocate” to help the cadets cover all bases
  - Play a supporting role in the cadet’s presentation

“Informal” Mentoring Activities (Choose any 3 from the list below):

- Communication Project – Discuss different ways people communicate (focusing on non-verbal communication). Emphasis is on the importance of active listening as a leader. Role playing to practice skill.
- Review the Air Force (AF) Officer Promotion System with cadet mentee. Engage in studying the system and quiz the mentee on knowledge.
- Meet and discuss “expectations” of a second lieutenant (2LT) and discuss the real expectations of a 2LT.
- Study/create case studies on challenges for a junior officer. Share the experiences you have had to help the cadet mentee grasp the real issues.
- Enforcing standards activity – engage in discussions on how to deal with subordinates and peers who do not meet AF standards.
  - Discuss ways to overcome the difficulty of handling peers.
  - Discuss ways to resolve conflicts among and between subordinates.
- Mentoring “Getaway” – Plan a 1-hour hike to perform a task analysis including all things necessary to prepare (i.e., concepts from Educational Psychology class, operational mission planning in the AF).
- Visit to the Base Education Center/Educational Training Office to orient the cadet mentee to the parallels of educational processes (USAFA=Active Duty).
- Meet with a fighter squadron (F-16) at Buckley AFB. Shadow the squadron to experience the level of preparation before, during, and after a simulated mission. De-brief the experience with mentor and instructor.
- Attend the guest lecture by Jaime Escalante at UCCS with your mentor/mentee. Meet afterwards to discuss the level of application to what we cover in our Educational Psychology class.
- Professional development and remaining current in the field by reading professional journals – discuss the importance of continuing to read professional material.
  - Gather different sources (i.e., Journal of Educational Psychology, Teaching Educational Psychology) to stay current. Discuss findings in class.
- Work on a learning portfolio together to address the chapters required for the cadet’s end of the year project.

*Educational Psychology Portfolio* Consisted of the following chapters:
- Chapter 1…My Educational Experiences: Elementary, Middle, High School and College
- Chapter 2…My Philosophy of Learning with References
- Chapter 3…Field Observations and “Hands-on Activity” at the Child Development Center
- Chapter 4…List of 10 Greatest Teachers of All Time and Justifications
- Chapter 5…Interview with a USAFA Professor (7 + 3 Questions)
- Chapter 6…Reaction Paper to “Stand & Deliver” and Teaching Philosophy
- Chapter 7…Lesson Plan with AOC mentor
- Appendix…School Pictures & Miscellaneous Artifacts