FROM TURTLES TO TWEETS: A SUCCESSFUL DOCTORAL COHORT REPORTS ON THE DEVELOPMENT OF WITHIN-GROUP ALTRUISM

Jill A. Hartmann*
Ed.D. Program in Leadership and Learning, Rivier University,
Sara Stetson, Ed.D.**
Adjunct Faculty, Division of Education, Rivier University,
and
Ann M. Gaffney, Ed.D.***
Adjunct Faculty, Division of Education, Rivier University

Abstract

Cohort groups have become increasingly popular as a means for developing cooperative learning environments in doctoral programs of education. Despite widespread use, a review of the literature suggests cohort models often have a negative influence on cooperation. Characteristics of successful cohorts have been documented, but little is known about the mechanisms by which successful cohorts develop. The purpose of this study was to compare a successful cohort with other cohorts from the same program. Current and former students were surveyed on dimensions of cohort effectiveness, conflict resolution style, and altruism. These domains were chosen through discussion among members of a successful cohort group. The authors are members of this cohort. Analysis of qualitative data resulted in themes of helping behavior, competition, and collaboration. Conversely, a quantitative comparison of the three surveys resulted in no relationship between cohort success and altruism; and a strong association between cohort success and competition. These contradictory results are explained in the context of how competitive altruism develops in groups. Social media is discussed as a signaling behavior that serves to build trust and social capital in successful cohort groups.

Introduction

Cohort groups have become increasingly popular in graduate leadership programs in education (Browne-Ferrigno & Muth, 2004; Robey & Bauer, 2013) because cohorts are thought to promote a cooperative learning environment and leadership skills (Wheelan & Lisk, 2000). A cohort is a group of students who begin and complete a program of studies and other common group learning experiences such as residencies or retreats together (Barnett & Muse, 1993; Wheelan & Lisk, 2000). Common learning opportunities are designed to foster team membership, connectedness to the program, and group development (Wheelan & Lisk, 2000). Despite the prevailing belief that cohort models provide supportive structures (Sapon-Shevin and Chandler-Olcott, 2001) and improve the academic and leadership skills (e.g., Barnett, et al., 2000; Basom, et al., 1996, 1997) of participants, empirical evidence on the effectiveness of cohort models in educational leadership programs is contradictory (Mandzuk, Hasinoff, & Seifert, 2003; Mather & Hanley, 1999; Sapon-Shevin & Chandler-Olcott, 2001; Slemp, 2005; Teitel, 1997; Wheelan & Lisk, 2000).

Cohesion or Conflict?

Group cultures that develop within cohorts are either very positive or highly dysfunctional (Mandzuk, Hasinoff & Seifert, 2003; Radencich, et al., 1998; Sapon-Shevin & Chandler-Olcott, 2001; Wheelan & Lisk, 2000). A number of positive and negative characteristics of cohorts in educational leadership programs have been identified, but little is known about the conditions that give rise to successful or dysfunctional cohort groups. For example, in a study of 19 cohort groups, Wheelan and Lisk (2000) found 16 successful cohorts and 2 dysfunctional cohorts in the same university program. Sapon-Shevin and Chandler-Olcott (2001) also found wide variation among cohorts from the same institution. With retention rates of only 50% in American doctoral programs (Dorn, et al., 1995; King, 2008), cohort effectiveness is a critical problem that deserves the attention of higher education administrators.

Cohesion

A successful cohort model allows for its members to build relationships. Effective cohorts have improved performance (Burnett, 1999), provide support in and out of class (Milstein, 1995), and result in educational leaders who recreate their experience in their work settings (Barnett & Muse, 1993). The bonds that cohort members develop with each other increase the personal persistence necessary to complete taxing programs (Shulte, 2002; Teitel, 1997); resulting in higher rates of program completion (Barnett, Basom, Yerkes, & Norris, 2000; Burnett, 1999; Dorn, Papalewis, & Brown, 1995). Members feel a responsibility to the group and also are supported both emotionally and academically throughout the process (Brown, 2011; Ross, Stafford, Church-Pupke, & Bondy, 2006).

Some studies report data indicating cohort membership improves student achievement (Barnett & Muse, 1993; Barnett, 1989; Ross, et al., 2006). For example, in a survey by Ross and colleagues, all members of the cohort studied felt that the cohort structure had contributed to their academic success. In a larger study of 19 cohort groups, Wheelan and Lisk (2000) found a positive relationship between student achievement as measured by grade point average and the level of group development a cohort attains. At higher levels of group development, the group has a common goal and develops both cohesion (Brown, 2011; Larson & Lafasto, 1989) and a common history of shared meaning (Feldman, 1984). Cohorts provide a structure for the development of these shared meanings (Maher, 2005).

There is broad evidence that cohort experiences can positively influence carryover of leadership skills (Barnett, et al., 2000; Basom, et al., 1996, 1997) and influence professional practices. For example, Leithwood and colleagues (1995) found a positive relationship between the cohort experience and graduate principals' effective leadership practices as measured by teacher ratings. In a large scale principal preparation study commissioned by the Wallace Foundation, Davis and colleagues (2005) found that cohort structure is a critical design feature in effective principal preparation programs.

Cohort participants also report greater feelings of mutual respect, affiliation and support (see Hiel, 1992; Milstein, 1995; Ross, et al., 2006; Shulte, 2002). Shulte (2002) compared cohort and non-cohort students' perceptions of the ethical climate of an educational leadership program. Cohort members' perceptions of the ethical climate of their program were significantly more positive than non-cohort members' perceptions. Ethical climate was defined by characteristics of positive student interactions, a sense of community and affiliation, and a strong student support system. When a cohort develops a strong sense of community, cohort participation results in a sense of psychological safety in participants' ability to more freely express themselves on controversial topics such as race (Ross, et al., 2006; Teitel, 1997; Uyder, 2010).

What happens when a cohort model limits individual freedom and expression? Is there a cost to community? A number of negative characteristics of cohorts have been identified in both small and large-scale studies.

Conflict

Cohort models also have some negative characteristics. The success of the cohort is dependent on the cooperation and collaboration of faculty, departments, and administrator systems within the University (Bista & Cox, 2014). Faculty that teach within the cohort model report finding it difficult to teach because the demands of the cohort are higher than in a traditional system (Brown, 2011; Barnett et al., 2000). Faculty also reported the discussions that take place in a cohort model tend to focus on the details of assignments rather than on the content of the academics (Brown, 2011; Seifert & Mandzuk, 2006). These discussions can be more social than academic, which is thought to reduce the rigor of the program (Brown, 2011; Seifert & Mandzuk, 2006).

Some individuals in the cohort program indicate that they feel they don't get enough attention and support from faculty members teaching in the cohort model (Bista & Cox, 2014). If they do not conform to the norms of the cohort, they feel isolated (Bista & Cox, 2014). When personality conflicts occur in the cohort model, they tend to be highly magnified because the cohort relationship lasts throughout the course of study, not just one class (Bista & Cox, 2014; Brown, 2011; Barnett et al., 2000). Individuals bring personal problems into the group and the problems become cohort problems (Brown, 2011; Barnett et al., 2000). In addition, cohort members may not have the flexibility to deviate from the course path set out for the cohort (Bista & Cox, 2014). As a result of the cohort, members feel they have limited interaction with students outside the cohort and are limited to only the perspectives and knowledge of the members of the group (Bista & Cox, 2014).

The focus in cohort education is the group rather than the individual, which can be seen as a drawback. This can take away from the development of individual knowledge as it focuses on the development of the group knowledge base (Brown, 2011; Seifert & Mandzuk, 2006). This group focus does not always allow for the individual to develop. Things that are important to an individual may be deemed as unimportant to the cohort and do not get discussed (Brown, 2011; Seifert & Mandzuk, 2006). This lack of individuality may lead to a lack of confidence and a lack of commitment to the program (Brown, 2011; Seifert & Mandzuk, 2006).

The group dynamics can be looked at as a negative aspect if the group is dominated by only a few students (Brown, 2011; Seifert & Mandzuk, 2006). Cohort members indicated that roles within the cohort were difficult to change once they were established (Brown, 2011; Teitel, 1997). Certain members dominated the discussions on a regular basis, while others remained silent (Brown, 2011; Teitel, 1997). In addition, some members of cohorts feel the need to monitor the progress of members they do not feel are progressing well enough (Brown, 2011; Barnett et al., 2000).

One area in which institutions have had limited success is in maintaining students' collaborative relationships beyond graduation. The phenomenon of a cohort that continues without the framework of the original institution and transforms into a community of practice has not yet been studied. Despite evidence of cohorts that exhibit these positive and transformative characteristics (e.g., Norris & Barnett, 1994), there is little mention in the literature of what student characteristics promote successful cohorts. There is even less information about what cohort or student characteristics may promote the transition from university supported cohort to a professional learning community that transcends the boundaries of the university program and degree completion.

Cohort to Community

A professional learning community is a group of professionals who voluntarily come together into a community of practice (DuFour, 2004) based on sharing and collaborative work (DuFour, DuFour, Eaker, & Many, 2006). Stoll and colleagues (2005) define professional learning communities as: "An inclusive group of people, motivated by a shared learning vision, who support and work with each other to inquire on their practice and together learn new and better approaches to enhance student learning" (Stoll, Bolam, McMahon, Thomas, Wallace, Greenwood et al., 2005; Stoll, Bollam, McMahon, Wallace, & Thomas, 2006). Although there are many variations, common elements in definitions of professional learning communities include collaboration (DuFour, 2005; Hord, 1997), critical reflection (DuFour, et al., 2006; Stoll, et al., 2005), inclusiveness (McREL, 2003; Stoll, et al., 2005), common goals, and mutual learning (Hord, 1997); in pursuit of those goals. This positive interdependence is the difference between a team and a community (Norris & Barnett, 1995). To be truly interdependent, group members must shift the focus from their own personal gain to the well-being of the cohort. In other words, developing a community of practice requires altruism among group members.

Altruism

Altruism is commonly defined as costly helping behavior (De Waal, 2008). There are numerous examples of altruism among animals. For example, meerkat and mongoose groups have sentries that sacrifice their own foraging time and draw the attention of predators by using warning calls (Clutton-Brock, et al., 2013; Manser, Seyfarth, & Cheney, 2002). The idea that one member of the group can act in such a way as to secure the survival of the whole or majority of the group is known as group selection (Wilson, 1975). In other words, natural selection can work at the level of the individual or the group/genome.

People are the most altruistic of all groups because they routinely exhibit altruistic behavior toward non-kin and even people they do not know. People are unique in that they can discern the emotional status and intent of others. Social psychologists call this ability Theory of Mind, and it is thought to be the basis for empathy. We are more likely to help people when we can empathize with their feelings (Batson, Sager, Garst, Kang, Rubchinsky, & Dawson, 1997). Empathy evolves from familiarity and previous experience of cooperation within a group. According to De Waal (2008), the emotional engagement brought about by empathy is required for truly altruistic behavior (Batson, 2010). While we are more likely to help family or friends, there is evidence that a strong sense of altruism can develop in randomly formed groups. The societal norms inherent in groups may influence the emergence of altruistic behavior (Speigal, 2012). Groups exert tacit pressure to contribute to the greater goals of the group. In a group situation, there is always a push-pull between one's individual needs and the needs of the group as a whole. The focus of this study is the group and individual characteristics that give rise to situations in which people may regularly choose the group over individual needs to form a successful ongoing collaboration.

Common Goods

Common goods are shared resources people in groups manage through agreed upon norms or practices (Barclay, 2004; Bollier & Helfrich, 2012). Examples of common goods include shared irrigation systems, fishing grounds, and grazing lands (Barclay, 2004); or public services such as public television, radio, open source software, and Wikipedia (Wagner & Prasarnphanich, 2007). In a cohort group, examples of common goods might be knowledge, class notes, professional networks, or shared contributions to group projects. Common goods are costly to provide, but everyone benefits. If a cohort

member posts study notes on a group WIKI, everyone can benefit from the work. Thus common goods are vulnerable to exploitation by people who do not share the burden of their provision (Barclay, 2004). If several people decide to use the public notes to study without providing their own, early contributors will eventually stop posting and the system breaks down. This situation is known as the tragedy of the commons (Hardin, 1968).

In a dyad or small group, reciprocal altruism is common. It is easy to adopt an expectation that if I help you, you will help me at some later date. This expectation of reciprocity is stronger in non-kinship groups than kinship groups, even when relationships are close (Rotkirch, Lyons, David-Barrett, & Jokela, 2014). Direct reciprocity works well when there is a guarantee of repeated encounters between the same two people and both people are able to give something (Nowak, 2006). In larger groups, the expectation of return is more indirect: I may contribute to the group with the tacit understanding that if I am a giving or cooperative group member, my efforts will be repaid by someone at some time (Tennie, Frith, & Frith, 2010; Barclay, 2010). Competition in groups is important in the development and maintenance of cooperative behavior. For example, in a donation game where participants are given information about the donation rank of other players, overall giving increases over repeated trials (Duffy & Kornienko, 2010) and people compete for the most desirable partners. Thus the mechanism that supports collaboration and cooperation is reputation (Barclay, 2004, 2010; Hardy & Van Vugt, 2006a, 2006b; Milinski, Semmann, & Krambeck, 2002; Tennie, et al., 2010). Competitive altruism signals our willingness to cooperate and advertises skills we may offer the group. By competing for social capital gained through altruistic behavior, common goods are maintained.

Turtle Hunting

People put forth and respond to specific signaling behaviors that alert group members to their trustworthiness, skills, and willingness to cooperate (Bliege Bird & Smith, 2005; Tennie, et al., 2010). In order to be selected by good partners, one must be recognized as a good partner. An example of conspicuous signaling behavior is obtaining food for the group (Alden-Smith & Bliege Bird, 2000; Bliege-Bird and Alden-Smith, 2005). The more costly the signal, the more reputation gained and the more attractive one becomes as a partner in future group activities. Turtle hunting in Australia's Torres Strait is a costly signaling activity. Hunters dive into the ocean to secure and harpoon 200-350 pound turtles for public feasts. The hunt is a dramatic and dangerous (i.e., costly) public signal of bravery, skill, and agility. Hunt leaders signal leadership skills and generosity. Turtle meat is freely given to the group with no direct expectation of reciprocity. In fact, turtles are only hunted in the context of public goods. It is the *reputational* benefit that maintains cooperation in this case. Indirect benefit occurs in the form of social capital such as respect from elders that may expand a hunter's sphere of influence, as well as choice of mates and future benefits such as support from the collective during times of hardship or old age (Alden-Smith & Bliege-Bird, 2000). Turtle hunting is a social insurance policy.

Observing the Hunt

Dramatic acts of bravery and generosity are not the only vehicles by which we can gain and maintain social capital in a group. More subtle forms of public observation or even gossip about group members' abilities can promote cooperation and identify non-cooperators or less desirable partners (Feinberg, Willer, & Schultz, 2014; Sommerfeld, Krambeck, & Milinski, 2008). We don't all need to hunt turtles. People are highly sensitive to the observations of others. For example, awards increase blood donation, but only when publicly posted (Lacerta & Macis, 2010) or tangible such as donation badges or ribbons (Low & Heinen, 1993). Even the suggestion of being watched is enough to change our level of cooperation and to deter cheating or defecting behavior. Bateson and colleagues (2006) found that

images of eyes placed above a coffee station honor box increased equitable contributions. Images of eyes coupled with posters admonishing students to clear their litter decreased littering behavior in a college cafeteria. Images of eyes coupled with a "Bike Thieves We are Watching You" sign decreased bike theft at another university by 60 percent (Bateson, Nettle, & Roberts, 2006; Ernest-Jones, Nettle, & Bateson, 2011; Nettle, Nott, & Bateson, 2012). People are more likely to give to the Salvation Army when they have seen someone give recently, they are more likely to stop and help someone change a tire when they have recently seen someone helping (Bryan & Test, 1967), and they are more likely to donate during a public goods game when they have opportunities to choose partners based on reputation (Barclay, 2004). In short, people contribute more when they feel they are being observed and when they observe others.

Purpose and Rationale

The characteristics of successful cohorts (Besom, et al., 1996; Maher, 2005; Ross et al., 2006; Slemp, 2005; Teitel, 1997) and professional learning communities (DuFour, et al, 2006; Stoll, et al., 2005) have been established. While some studies report on *program* components that may promote successful cohorts (e.g., Browne-Ferrigno & Muth, 2004; Salazar, Pezey, & Zembik, 2013; Teitel, 1997), little is known about the *participant* characteristics and group dynamics that promote the development of successful cohorts. Moreover, little is known about the transformation of cohorts into self-sustaining professional communities of practice.

Specifically, we wanted to investigate the relationship between cohort success and the potential moderators that arose during our discussions: conflict resolution style and altruism. Cohort success was defined as an inclusive and collaborative group that showed high affiliation and satisfaction on the cohort relationships section of the survey. Our first research question was: Is there a relationship between high performing cohorts and altruism? Our second research questions was: Is there a relationship between high performing cohorts and conflict resolution style?

Background and Methodology

In the summer of 2008, a small Catholic University in New Hampshire, U.S.A. accepted its first cohort in a new Ed.D. program in Leadership and Learning. Rivier University has an enrollment of 3000 and is best known for programs in nursing and education. The doctoral program has a mission of transformative leadership based in service: "To provide a unique forum and perspective for a discussion of transformational leadership, learning, and research to improve the lives of others—especially the poor, the vulnerable, and those in need". The program requires 3-4 years of coursework in a closed cohort format prior to dissertation advisement. Courses are taught face-to-face with regular contact between classes via discussion boards and virtual class meetings. The discussion boards are graded and semi-structured, but not facilitated. The program requires an initial multi-day residency.

Data Collection

Quantitative and qualitative methods were used to collect data on group dynamics within and between cohorts from 2008 through 2014. Data collection included a multi-part survey as well as a semi-structured interview with members of the first cohort. The survey consisted of a brief demographic section followed by four independent sets of questions. The first series of questions targeted the positive and negative aspects of cohorts as outlined in the literature review. The second series was an adapted version of the Self Report Altruism Scale (Witt & Boleman, 2009), and the third series was an adapted

version of the Conflict Management Styles scale (Adkins, 2006). The conflict resolution subscales measured were: collaborating, competing, avoiding, harmonizing, and compromising. The collaborating approach is defined as finding the best solution for all stakeholders. The competing style is defined as using an authoritarian approach. The avoiding style is defined as non-confrontation, and the harmonizing style is described as giving in to maintain relationships. Finally, the compromising style is defined as taking the middle ground (Adkins, 2006). All three sets of questions were presented in a Likert-like format. Correlations were computed to find the relationship between the cohort effectiveness scale and the altruism scale on the entire sample and by cohort group. Correlations were also computed to find the relationship between the sub-factors of the conflict resolution scale and cohort effectiveness.

The final set of questions was open ended. These questions probed for positive and negative cohort experiences as well as participant reflections on what experiences or student characteristics promote or detract from positive cohort development. Common themes were derived from the open-ended questions. First, elements of cohort effectiveness were identified through discussion and from the relevant literature. Then, responses to the open ended questions were reviewed and categorized into general themes.

Participants

A total of 109 surveys were distributed electronically to current and former students from the 2008-2014 cohort groups. The response rate was 44%. Limitations of the study include the small sample size of some of the cohort groups and the lack of sampling from students who failed to complete the program.

Of the respondents, 40 identified themselves as females (80%), 8 identified themselves as males (16%), and 2 respondents did not indicate their gender. The age range of the respondents is 28 years to 65 years.

The data reflects cohort members that joined their cohorts between the years of 2008 and 2014. Of these members, 12 (24%) joined their cohort in 2008, 3 (6%) joined in 2009, 6 (12%) joined in 2010, 5 (10%) joined in 2011, 5 (10%) joined in 2012, 10 (20%) joined in 2013, 4 (8%) joined in 2014, and 5 (10%) did not respond. When asked about the number of members in their cohort, respondents reported from 6 to 30 members (M = 12.87).

The results indicate that 39 (78%) of the respondents work in the field of education, 8 (16%) do not work in the field of education, and 3 (6%) did not respond. The data show 22 (44%) of the respondents are currently working on coursework; 12 (24%) are finished with everything except their dissertation; 6 (12%) are working on their dissertation; and 8 (16%) have graduated and 2 (4%) respondents did not answer.

Results

A Pearson product-moment correlation was calculated to determine the relationship between cohort satisfaction/effectiveness and conflict resolution style. The data showed no violation of normality or linearity. There was a positive correlation between cohort satisfaction and competition, which was statistically significant ($r = 0.26$, $n = 42$, $p < 0.05$). There was also a strong positive correlation between cohort effectiveness and collaboration ($r = 0.28$, $n = 42$, $p < 0.05$). Conversely, there was no relationship between altruism and the strength of a cohort's effectiveness and affiliation ($r = 0.02$, $n = 40$, $p > 0.05$).

When we analyzed the data on the most successful cohort, which also had the longest affiliation, we found similar results. Despite multiple anecdotal reports of altruistic behavior among group members, there was no relationship between Cohort 2008 members' scores on the Altruism scale and cohort satisfaction/effectiveness ($r = -0.08$, $n = 11$, $p > 0.05$). The same group showed strong

relationships between cohort effectiveness and competition, which was at the cutoff for significance ($r = 0.49$, $n = 12$, $p = 0.05$); and cohort effectiveness and collaboration, which was statistically significant ($r = 0.80$, $n = 12$, $p < 0.001$).

When the open ended questions were reviewed across all cohorts (2008-2014), some common themes were expressed. Four categories emerged for analysis: 1) evidence of cohort effectiveness, 2) evidence of helping behavior/altruism, 3) competitiveness, and 4) collaboration. Although many of the comments encompassed more than one theme at a time, they will be broken out individually for this discussion.

Cohort Effectiveness

Effectiveness of the cohort was an overarching theme in the comments of all respondents. Cohort members felt that being part of a cohort helped them not only succeed academically, but also helped them build leadership skills. During the cohort experience members felt that there were plenty of opportunities to take on various leadership roles, which helped build communication skills, negotiation skills, and exposed members to different leadership styles. One member commented, "Taking and receiving constructive criticism. They [fellow cohort members] have taught me that it is possible to find a group of people who don't have to trample on others to be successful." Other members felt that cohort membership built a "sense of camaraderie" and "trust."

Altruism

Helping behavior was another theme of cohort membership. Cohort members generally had positive comments about the support provided by their fellow members. Members felt overwhelmed by the amount of support they received from their fellow members during their experiences with the cohort. Respondents cited incidences when their cohort members supported them through things such as difficult obstacles in the academic experience, lack of confidence issues, and tough personal issues that they were facing. One cohort member said, "People have gone WAY out of their way to help me with things I needed. People helped me with materials and HOURS of work without expecting anything in return. It is just completely overwhelming!"

Competitiveness

The theme of competitiveness was also prevalent in the comments. Cohort members felt that the membership in the cohort drove them to succeed even more than they would have on their own. One comment was, "I do not want to be behind while others continue to make progress. I want to be viewed as a capable/competent member of the team. The cohort makes me work hard to continue the process toward the dissertation." Another cohort member felt "I may not have finished without the help and encouragement (and the competitiveness)" of the cohort. Another comment was, "We hold one another accountable for our actions, which compels a greater depth to research and conceptualization. Meaning, that the cohort gently challenges those within it to work harder and become more competent students."

Collaboration

Collaboration was also a major theme of the comments from cohort members. Many members cited times their cohort came together to collaborate on different projects, such as studying for the comprehensive exams and practicing for defenses. A cohort member said, "My cohort started helping each other practice for defenses. Everyone was so eager to help and it made me feel great to think I might be part of helping, too." Many members found it helpful to have a "sounding board" for ideas and felt the "critical feedback" members of the group provided was invaluable.

Discussion

In the present study, we found increased cohort satisfaction and effectiveness with length of affiliation. It is not surprising that a collaborative framework would take time to develop among very different people (e.g., Maher, 2005). People have a well-honed ability to discern the emotional status and intent of others (Theory of Mind). Length of affiliation allows for shared experiences (Browne-Ferrigno & Muth, 2004). When these two factors are put together, social relatedness, or empathy, can develop (Seyfarth & Cheney, 2013). We are more likely to help people with whom we can empathize. In short, we care what happens to others whom we consider members of our group.

Not all groups are successful simply through sharing experiences over a long period of time, however. In group situations, there is always a pull between one's individual interests and the interests of the group as a whole (Brembs, 1996). In successful groups, most people contribute to the group, cooperation is maintained over time, and "free riders" are punished (Barclay, 2010). Altruism, or cooperative helping behavior that carries a cost to the individual helper with no specific expectation of return, is one index by which we might measure group effectiveness.

The first (2008) cohort is known as an effective cohort. They meet regularly, collaborate on projects, give time to one another without direct expectation of return, and volunteer time to assist other cohorts. The 2008 group has even adopted "defectors" from other cohort groups. Why, then, was there no relationship between members' scores on the cohort effectiveness scale and an altruism scale? Why is a competitive group so willing to share common goods? We need to turn to the literature on group selection, cooperation and altruism to answer this question.

Giving as Good as You Get

Our first research question was: Is there a relationship between high performing cohorts and altruism? This sample of respondents showed no relationship between effectiveness and altruism. Altruism scales measure anonymous and isolated encounters. For a cooperative group to develop, repeated and public encounters are required. Thus it is possible to be less inclined toward altruism in one's personal makeup and more inclined toward altruism as defined by one's group affiliation. The qualitative data clearly show multiple instances of costly helping behavior, but the economy for that behavior carries both real and reputational benefits. One thing that may set the high performing groups apart, however, are the ways in which reputation is broadcasted to the group.

Our second research question was: Is there a relationship between high performing cohorts and conflict resolution style? We found a positive association between cohort effectiveness and competition and collaboration. Why does a highly effective cohort exhibit high levels of competition and collaboration with low levels of altruism?

Groups that cooperate leverage social capital in the form of reputation. Reputation is gained through a type of altruism that is competitive, indirect, repetitive, and benefits the common good. Common goods in a professional learning community include abstract capital such as networks, knowledge, ideas, and skills. The exchange economy is not necessarily tangible.

Turtle Hunting in the Digital World

In addition to their solidarity, the 2008 cohort is also known for their extensive use of discussion boards and other forms of digital media to initiate and maintain contact. Although courses were taught face-to-face, all courses required extensive use of discussion boards between classes. Because the boards were

not facilitated by faculty, they often "took on a life of their own" and extended beyond the initial assignment. This public expression of ideas and opinions developed into a norm of inclusion. When formal classes ended, the email system became a "post to all/reply to all" environment.

The public posting of ideas led to a second norm of solidarity. For example, students were so used to sharing their thoughts there was a public posting of comprehensive exam results. Students then posted a WIKI site to share notes and scheduled study times to ensure "no cohort member was left behind". This mantra extended to assisting one another with dissertation study materials, co-editing our work, and critiquing one another before presentations and defenses.

Finally, the public critiquing of defenses led to a collaborative norm. Cohort members used collaborative web tools such as Google docs and Google sites to work together to improve presentations. Students who were successful returned to the institution to assist people who were still working, and this type of cooperation led to another group norm of transcending the program. When people started to graduate, we also recognized that different people may need to lead at different times.

The common theme in the accidental development of group norms in the 2008 cohort is the transparency digital media has given our actions. Because everything is public, we know who is contributing what; and we know who can be trusted to follow through. We have also come to recognize that different people provide different types of support. Some of us are good at providing emotional support. Some are good at making sure we connect socially. Some are good at editing. Some are good at statistics. Whatever the commodity, there is someone there to provide it if we maintain the size and diversity of our group. More importantly, everyone knows who and what is available through social media. In the case of the 2008 cohort, digital media provides a built in mechanism for the build-up of reputational benefits that maintain cooperative behavior in a competitive environment. As is turns out, social media is a good signaling mechanism (Tennie, et al., 2010).

Turtles to Tweets

This study set out to investigate the relationship between cohort success and the potential moderators of conflict resolution style and altruism. In addition, we hoped to learn more about the participant characteristics and group dynamics that underlie successful cohorts and their transformation into self-sustaining professional communities of practice. The quantitative results of this study showed a positive correlation between cohort satisfaction and competition, a strong positive correlation between cohort effectiveness and collaboration, and no relationship between altruism and the strength of a cohort's effectiveness. Four categories emerged from the qualitative data: 1) evidence of cohort effectiveness, 2) evidence of helping behavior/altruism, 3) competitiveness, and 4) collaboration.

Surprisingly, despite evidence of helping behavior from the qualitative data, the quantitative data showed no correlation between cohort effectiveness and altruism. The quantitative data also showed moderate to strong associations with competition and collaboration respectively. This apparent contradiction can be explained by an examination of the most effective cohort in the study. This cohort used digital communication in a very public way, by which members earned a positive reputation through helping others in the group. The public nature of the communication and helping ensured that members competed for positive reputation earned by engaging in helping behavior. In other words, members competed to collaborate.

These results are consistent with theories of competitive altruism. In any group situation, there is always a balance between the needs of the individual and the needs of the group. In a large group situation, it is unlikely that a perfectly balanced "*tit for tat*" exchange can be maintained. The collapse of collaboration in iterative public goods situations when there is no opportunity to use reputation has been

well established. When people receive no benefit for their costly helping behavior, they eventually stop contributing to the common good.

Why are there examples of interdependent groups? Why do people help when there is no apparent benefit? Benefits of helping behavior do not have to be direct to have a powerful influence over our behavior. Cooperative behavior produces reputational benefits (Barclay, 2010). Reputation is a social insurance policy against future interactions within a group. Without a public reputation, we don't know whether the game is worth playing or whom to play it with. ■

References

Alden-Smith, E. & Bliege Bird, R. (2000). Turtle hunting and tombstone opening: Public generosity as costly signaling. *Evolution and Human Behavior, 21*, 245-261.

Barclay, P. (2004). Trustworthiness and competitive altruism can also solve the "tragedy of the commons". *Evolution and Human Behavior, 25,* 209-220.

Barclay, P. (2010). Harnessing the power of reputation: Strengths and limits for promoting cooperative behaviors. *Evolutionary Psychology, 10*(5), 868-883.

Barnett, B., & Muse, I. (1993). Cohort groups in educational administration: Promises and Challenges. *Journal of School Leadership*, *3*, 400-415.

Barnett, B.G., Basom, M.R., Yerkes, D.M., & Norris, C.J. (2000). Cohorts in educational leadership programs; Benefits, difficulties, and the potential for developing school leaders. *Educational Administration Quarterly*, 36, 255-282.

Basom M. R. & Yerkes, D. M. (2001). *Modeling community through cohort development.* A paper presented to the American Educational Research Association. [ERIC No. ED451814].

Bateson, M., Nettle, D. & Roberts, G. (2006). Cues of being watched enhance cooperation in a real world setting. *Biology Letters, 2,* 412-414.

Batson, C. D. (2010). Empathy-induced altruistic motivation. *Prosocial motives, emotions, and behavior: The better angels of our nature*, 15-34.

Batson, C. D., Sager, K., Garst, E., Kang, M., Rubchinsky, K., & Dawson, K. (1997). Is empathy-induced helping due to self-other merging? *Journal of Personality and Social Psychology, 73,* 495-509.

Bista, K., & Cox, D. (2014). Cohort-based doctoral programs: What we have learned over the last 18 years. *International Journal of Doctoral Studies*, 9, 1-20.

Bliege Bird, R. & Smith, E. A. (2005). Signaling theory, strategic interaction, and symbolic capital. *Current Anthropology, 46*(2), 221-248.

Bollier, D., & Helfrich, S. (Eds., 2012). The wealth of the commons: A world beyond market and state. Levellers Press: Amherst, MA.

Brembs, B. (1996). Chaos, cheating, and cooperation: Potential solutions to the prisoner's dilemma. *Oikos,* 14-24.

Brown, C. (2011). Learning communities or support groups: The use of student cohorts in doctoral educational leadership programs (Doctoral dissertation). Retrieved from ProQuest, LLC. (UMI 3453645).

Browne-Ferrigno, T., & Muth, R. (2004). On being a cohort leader: Curriculum integration, program coherence, and shared responsibility. *Educational Leadership and Administration, 16,* 77-95.

Bryan, J. H. & Test, M. A. (1967). Models and helping: Naturalistic studies in aiding behavior. *Personality and Social Psychology, 6,* 400-407.

Burnett, P. (1999). The supervision of doctoral dissertations using a collaborative cohort model. *Counselor Education and Supervision*, *39*(1), 46-52.

Cercone, K. (2008). Characteristics of adult learners with implications for online learning design. *AACE Journal, 16*(2), 137-159.

Clutton-Brock, T. H., Brotherton, P. N. M., Russell, A. F., O'riain, M. J., Gaynor, D., Kansky, R., & Monfort, S. (2001). Cooperation, control, and concession in meerkat groups. *Science*, *291*(5503), 478-481.

Davis, S., Darling-Hammond, L., LaPointe, M., & Meyerson, D. (2005). Developing successful principals. *Stanford Educational Leadership Institute.* Retrieved September 12, 2014.

De Waal, F. B. (2008). Putting the altruism back into altruism: the evolution of empathy. *Annual Review Psychology*, *59*, 279-300.

Diamond, J. (1995). Easter's end. *Discovery*, *9,* 62-69.

Dorn, S. M., Papalewis, R. & Brown, R. (1995). Educators earning their doctorates: Doctoral student perceptions regarding cohesiveness and persistence. *Education, 116*(2), 305-314.

DuFour, R. (2004). What is a professional learning community? *Educational Leadership, 61*(8), 6-11.

DuFour, R., DuFour, R., Eaker, R., & Many, T. (2006). *Learning by doing: A handbook for professional learning communities that work*. Bloomington, IN: Solution Tree.

Duffy, J. & Kornienko, T. (2010). Does competition affect giving? *Journal of Economic Behavior and Organization, 74*(1), 82-103.

Ernest-Jones, M., Nettle, D., & Bateson, M. (2011). Effects of eye images on everyday cooperative behavior: A field experiment. *Evolution and Human Behavior, 32,* 172-178.

Feinberg, M., Willer, R., & Schultz, M. (2014a). Gossip and ostracism promote cooperation in groups. *Psychological Science Online First,* doi: 10.1177/0956797613510184

Feldman, D. C. (1984). The development and enforcement of group norms. *Academy of Management Review, 9*(1), 47-53.

Hardin, G. (1968). The tragedy of the commons. *Science, 162,* 1243-1248.

Hardy, C. & Van Vugt, M. (2006). Nice guys finish first: The competitive altruism hypothesis. *Personality and Social Psychology Bulletin, 32,* 1402-1413.

Hardy, C. & Van Vugt, M. (2006). Giving for glory in social dilemmas: The competitive altruism hypothesis. *Personality and Social Psychology Bulletin, 32,* 1402-1413.

Hebert, F. T., & Reynolds, K. C. (1998). MPA learning outcomes: Does the cohort format make a difference? *Journal of Public Affairs Education, 4,* 253-262.

Hord, S. (1997). *Professional learning communities: What are they and why are they important?* Austin, TX: Southwest Educational Development Laboratory (SEDL).

King, M. F. (2008). *Ph. D. completion and attrition: Analysis of baseline demographic data from the Ph. D. completion project*. Council of Graduate Schools.

Lacetera, N., & Macis, M. (2010). Social image concerns and prosocial behavior: Field evidence from a nonlinear incentive scheme. *Journal of Economic Behavior and Organization. 76*(2), 225-237.

Larson, C. E., & LaFasto, F. M. (1989). Teamwork: What must go right, what can go wrong.
 (Vol. 10), Sage.

Leithwood, K. (1995). Preparing school leaders: What works? *Connections! 3*(3), 1-7.

Low, B. S. & Heinen, J. T. (1993). Population, resources, and environment: Implications of human behavioral ecology for conservation. *Population and Environment, 15,* 7-41.

Lucas, T. & Robinson, J. (2002). Promoting the retention of prospective teachers through a cohort for college freshman. *The High School Journal, 86*(1), 3-14.

Maher, M. (2004). What really happens in cohorts. *About Campus, 9*(3), 18-23.

Maher, M. (2005). The evolving meaning and influence of cohort membership. *Innovative Higher Education, 30*(3), 195-211.

Mandzuk, D., Hasinoff, S., & Seifert, K. (2003). Inside a student cohort: Teacher education from a social capital perspective. *Canadian Journal of Education, 28*(1, 2), 168-184.

Manser, M. B., Seyfarth, R. M., & Cheney, D. L. (2002). Suricate alarm calls signal predator class and urgency. *Trends in Cognitive Science, 6*(2), 55-57.

Mather, D., & Hanley, B. (1999). Cohort grouping and preservice teacher education: Effects on pedagogical development. *Canadian Journal of Education, 24*(3), 235-250.

Milinski, M., Semmann, D., & Krambeck, H. J. (2002). Reputation helps solve the "tragedy of the commons". *Nature, 415,* 424-426.

Milstein, M. M. (1995). Progress and perils: Development of the field-based Ed.D. program in educational administration at the University of New Mexico. *Planning and Changing, 26*(3/4), 130-147.

Mid-continent Research for Education and Learning (McREL). (2003). *Sustaining school improvement: Professional learning community*. Retrieved May 10, 2008, from
http://www.mcrel.org/pdf/leadershiporganizationdevelopment/5031TG_proflrncommfolio.pdf

National Science Foundation, National Center for Science and Engineering Statistics. 2014. *Doctorate Recipients from U.S. Universities: 2012*. Special Report NSF 14-305. Arlington, VA. Available at http://www.nsf.gov/statistics/sed/2012/.

Nettle, D., Nott, K., & Bateson, M. (2012). 'Cycle thieves, we are watching you': Impact of a simple signage intervention against bicycle theft. *PLOS One, 7*(12): e51738.
doi: 10.1371/journal.pone.0051738

Norris, C. J. & Barnett, (1994). Cultivating a new leadership paradigm: From cohorts to communities. Paper presented at the annual meeting of the University Council for Educational Administration.

Nowak, M. A. (2006). Five rules for the evolution of cooperation. *Science, 314,* 1560-1563.

Pemberton, C. L. & Akkary, R. K. (2010). A cohort, is a cohort, is a cohort...or is it? *Journal of Research on Leadership Education, 5*(5), 179-208.

Radencich, M. C., Thompson, T., Anderson, N. A., Oropallo, K., Fleege, P., Harrison, M., … & Gomez, S. (1998). The culture of cohorts: Preservice teacher education teams at a southeastern university in the United States. *Journal of Education for Teaching: International research and pedagogy*, *24*(2), 109-127.

Robey, P. V. & Bauer, S. C. (2013). Change in university-based programs of educational leadership: How responsive have programs been? *Journal of Research on Leadership Education, 8*(3), 261-279.

Ross, D. D., Stafford, L., Church-Pupke, P., & Bondy, E. (2006). Practicing collaboration: What we learn from a cohort that functions well. *Teacher Education and Special Education, 29*(1), 32-43.

Rotkirch, A., Lyons, M., David-Barrett, T., & Jokela, M. (2014). Gratitude for help among adult friends and siblings. *Evolutionary Psychology, 12*(4), 673–686.

Rushton, J. P., Chrisjohn, R. D., & Fekken, G. C. (1981). The altruistic personality and the self-report altruism scale. *Personality and Individual Differences, 2,* 293-302.

Salazar, M. J., Pazey, B. L. & Zembik, M. K. (2013). What we've learned and how we've used it: Learning experiences from the cohort of a high-quality principalship program. *Journal of Research in Leadership Education, 8*(3), 304-329.

Sapon-Shevin, M. & Chandler-Olcott, K. (2001). Student cohorts: Communities of critique or dysfunctional families? *Journal of Teacher Education, 52*(5), 350-364.

Schulte, L. E. (2002). A comparison of cohort and non-cohort graduate students perceptions of the ethical climate and its importance in retention. *College Student Retention, 4*(1), 29-38.

Seifert, K., & Mandzuk, D. (2006). Student cohorts in teacher education: Support groups or intellectual communities? *Teachers College Record*, *108*(7), 1296-1320.

Seyfarth, R. M. & Cheney, D. L. (2013). Affiliation, empathy, and the origins of theory of mind. *Proceedings of the National Academy of Sciences, 10*(2), 10349-10356.

Slemp. K. (2005). The cohort model: Promise or Peril? Paper presented at the 4th national conference for accelerated programs in higher education. *Exploring Innovation in Accelerated Learning.*

Smith, E. A., & Bliege Bird, R. (2000). Turtle hunting and tombstone opening: Public generosity as costly signaling. *Evolution and Human Behavior, 21,* 245-262.

Sommerfeld, R. D., Krambeck, H., & Milinski, M. (2008). Multiple gossip statements and their effect on reputation and trustworthiness. *Proceedings of the Royal Society of Biological Sciences, 275*(1650), 2529-2536.

Stoll, L., Bolam, R., McMahon, A., Thomas, S., Wallace, M., Greenwood, A., & Hawkey, K. (2005). What is a professional learning community? A summary. Retrieved September 13, 2014.

Stoll, L., Bolam, R., McMahon, A., Wallace, M., & Thomas, S. (2006). Professional learning communities: A review of the literature. *Journal of Educational Change*, *7*(4), 221-258.

Teitel, L. (1997). Understanding and harnessing the power of the cohort model in preparing educational leaders. *Peabody Journal of Education*, *72*, 66-85.

Uyder, D. (2010). Beyond pedagogy: Lessons learned through a teacher prep cohort. *Adult Learning*, *21*, 21-26.

Wagner, C., & Prasarnphanich, P. (2007). Innovating collaborative content creation: The role of altruism and WIKI technology. *Proceedings of the 40th Hawaii International Conference on System Sciences*.

Wheelan, S. A. & Lisk, A. R. (2000). Cohort group effectiveness and the educational achievement of adult undergraduate students. *Small Group Research, 31*(6), 724-738.

Wilson, D. S. (1975). A theory of group selection. *Proceedings of the National Academy of Sciences, 72*(1), 143-146.

_____

* **JILL A. HARTMANN**, M.Ed., S.A.I.F., is an educational evaluator and experienced teacher. She has been directly involved in the field of education for 15 years. As a teacher, Jill has taught most grade levels from 1st grade through 8th grade and holds multiple certifications. With her vast teaching experience, she has a wealth of knowledge to draw from to help her students. As an educational evaluator, Jill has had the opportunity to work with children of all ages to help identify their academic strengths and weaknesses. By recognizing academic strengths and weaknesses, her educational experiences can be tailored to promote individual learning. Making the connection between evaluation results and appropriate educational interventions is one of her priorities. In her reports, she strives to make results and recommendations useful and accessible to both educators and parents. In addition, Jill is currently working on her doctoral dissertation. She has also presented in the United States and internationally.

** **Dr. SARA STETSON** holds degrees in psychology, learning disabilities, school psychology, and leadership. She has worked as a learning disabilities specialist, consulting teacher, school psychologist, and pupil services administrator. Dr. Stetson has taught courses in learning disabilities and assessment at Rivier University for 14 years. She has written numerous competitive grants for students at risk, positive behavioral supports, digital technologies, and Universal Design for Learning. She speaks regularly at various conferences and professional development programs on topics such as educational leadership, math and the brain, executive functions, and child development. Dr. Stetson's primary research interests include numerical cognition and brain-based education.

*** **Dr. ANN M. GAFFNEY** is a middle school teacher who is passionate about the learning of children and adults. She holds a B.A. in Mathematics from Wellesley College, a M.Ed. in Elementary Education from Lesley University, and an Ed.D. in Leadership and Learning from Rivier University. She is currently adjunct faculty at Rivier University and Southern New Hampshire University. Dr. Gaffney presents regularly at education conferences locally and at the national and international level. Her primary research interests focus on the professional development of in-service teachers, particularly in the area of mathematics teaching and learning.