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Diamonds in the Rough: A Case Study of Team Development Across Disciplines, Distances, and Institutions

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PREVIOUS
ARTICLE



ISSUE
CONTENTS



NEXT
ARTICLE



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Abstract

The ethnographic case study reported here analyzed the experiences of a team of faculty from different universities in a technology-intensive project. Team development mirrored Tuckman's model of small group development. Contrary to previous research, the leader did not have higher status than members, and approached the role with empathy rather than aggression. Motivation levels, timeline pressures, inadequate evaluation and rewards, leadership style, need for cohesion and interaction, and importance of trust are reported.

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Introduction

For decades social scientists have examined how small groups and teams function (Deutsch, 1949; Katzenbach & Smith, 1993; Morgan, Salas, & Glickman, 1993; Tuckman, 1965). Research explored team development (Tuckman, 1965), cohesion (Gammage, Carron, & Estabrooks, 2001), effectiveness (Janz, Colquitt, & Noe, 1997), team building (Hart & McLeod, 2003) and related topics. However, few studies have explored the development of teams from different organizations and different disciplines. Yet multi-disciplinary teams from different institutions are becoming the norm in higher education and Extension (Leholm, Hamm, Suvedi, Gray, & Poston, 1999). Competitive federal and state grant programs emphasize multi-disciplinary collaboration in research and Extension (Leholm et al., 1999).

Purpose

As research and Extension shift toward collaborative efforts between different institutions and disciplines, a better understanding of the dynamics of such groups is critical for success. The purpose of the ethnographic case study reported here was to explore team-building strategies by describing faculty reactions to their participation in a multi-disciplinary, multi-institutional team project conducted via distance.

Method

To understand faculty perceptions toward multi-disciplinary, multi-institutional teamwork, ethnographic case study methods were employed (Merriam, 1988; Spradley, 1979). A case study is "chosen precisely because researchers are interested in insight, discovery, and interpretation

rather than hypothesis testing" (Merriam, 1988, p.10). Ethnographic case studies provide in-depth descriptions of the culture of the social group being studied (Wolcott, 1980) by collecting data that is not only extensive, but intensive.

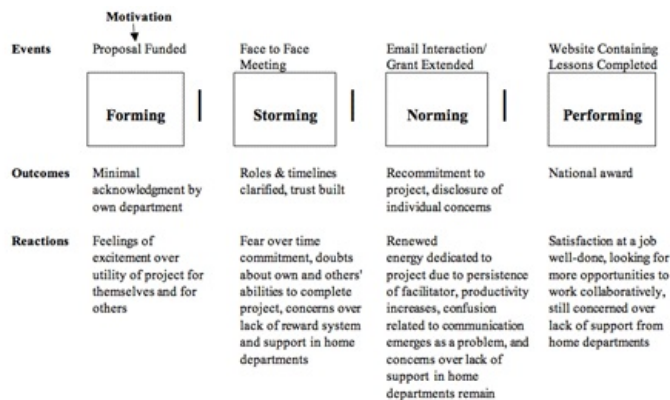
Consistent with case study design, researchers identified 10 faculty members engaged in an Extension team project as sources of data (Merriam, 1988). The team members were from five different universities and had Extension appointments in diverse agricultural disciplines. Data were collected from interviews over a 2-year period at the beginning, middle, and end of the project. Interviews were conducted in person or over the phone, transcribed, verified, and analyzed for themes.

Results

The team in this study came together to work on a grant-funded project to develop online educational resources. Figure 1 depicts this team's development by integrating team events with Tuckman's (1965) team development model.

Figure 1.

Integration of Tuckman's (1965) Small Group Development Model into One Team's Experience



Motivation for Collaboration

Most team members were motivated by a desire to further their knowledge of Web-based instruction. One participant noted, "I think this gives you a chance to get involved in distance education. The process of developing a module and writing objectives is different when you're doing it online."

Other team members expressed utilitarian motives. As one commented, "This electronic library containing these modules will be valuable to me . . . a useful, tangible product that I can use in my program."

Though their reasons for collaboration varied, all team members were convinced that creating the lessons would be essential as Extension becomes more involved in distance delivery. One participant commented:

Do we really use the right tools or the right methods to teach these things on the Web? And these . . . non-traditional students, how well can they relate to these units? We are used to teaching in the classroom. We look at the students' eyes and can see whether they understand. When you put things on the Web . . . it really makes us think about whether we can modify it to make it better.

Though two team members were motivated to collaborate by the prospect of a useful end product, most were motivated to improve their methods of instructional delivery.

Timeline

The goal of all team members was to produce a superior instructional Web site. However, as the project progressed and deadlines were frequently unmet, many members questioned that goal. One interviewee expressed her frustration, "I keep wondering if we're going to get our lessons done in time . . . if we're going to be finished before we run out of time and money."

Some team members began lowering their expectations. One team member shared, "Even if we only manage to do a good job completing 80% of our objectives, I think it will be a successful outcome."

Overall, each team member went through a period of questioning team objectives. The anxiety they expressed was consistent with the reactions of other, similar teams (Younglove-Webb, Gray, Abdalla, & Thurow, 1999).

Evaluation and Rewards

There was overwhelming concern about the lack of concrete evaluation methods for their participation (Frost & Gillespie, 1998; McKenzie & Lee, 1998; Wageman, 1995). Most team members felt their administrators encouraged collaboration, but were unprepared to evaluate and reward such endeavors. One participant observed:

I think the problem comes [in evaluating] your particular role . . . [Administrators] have difficulty determining whether you are a big player or just a bit player taking the credit for work other people did. So while they promote it on the one hand, they have difficulty rewarding participation.

An undertone of cynicism taints this participant's words about administrators:

We are in a crunch for funding so people get together in order to get certain things done . . . I'm going to say that the administration likes to see us deliver certain results and if the multi-disciplinary approach is the way to deliver the right results then I'm sure they're going to be favorable to it.

Additionally, though their peers were not *unsupportive*, they were generally *unaware* of their departmental colleagues' collaborations. One interviewee quipped, "I'm not sure that they know that I'm involved and I'm not sure that they would care."

Overall, team members felt little support from their colleagues and administrators.

Team Leader

Critical to the team's success was a facilitator who was the driving force behind the completion of the work (Burns, 1994; Gersick, 1989; Proehl, 2000; Schrage, 1995; Younglove-Webb et al., 1999). Without the constant cajoling of the facilitator, team members agree the project would never have progressed. One participant admitted, "I think the person in charge has done an excellent job. She's got the right touch of encouragement and reminding you of the need to deliver."

Though the team leader was relentless in keeping the other team members on track, she still maintained a positive relationship with them. One participant expressed, "The leadership was awesome! Unfortunately, we're not all good followers; so I don't think we finished in a timely manner. [The team leader's] patience and the way she encourages were very positive."

By fostering open, trusting relationships with the team members, this team leader created a working environment conducive to collaboration (Schrage, 1995).

Cohesion

An initial face-to-face meeting in which team members became acquainted with one another; clarified and defined roles, objectives, and deadlines; and set ground rules for communication was critical in achieving team cohesion (Katzenbach & Smith, 1993; Scholtes, 1991; Younglove-Webb et al., 1999). But many team members still missed the interaction of face-to-face meetings. According to one interviewee, "It would have been nice . . . to have gotten together more often as a group. I think it will be twice during . . . the whole process that we have ever been together as a group."

The distance separating team members added to difficulties in achieving the fusion necessary for successful collaboration (Armstrong & Cole, 1995; Kiesler & Cummings, 2002). In the beginning, one team member expressed, "We want to make sure this set of modules doesn't look like a six room house built by six different contractors! We need to have enough interaction so that we have a common view."

In spite of the distance separating them, the team evolved from a mere work group into a synergistic entity. One interviewee noted at the project's end, "We talk as a group much more often now. Many of the modules reflect the thinking of the entire group . . . the lessons are better than they would have been if they were developed by an individual."

The team's transformation followed Tuckman's (1965) team development model. The forming and storming stages of this team were rife with doubts and uncertainty about how the project would be carried out. As the team reached the norming and performing stages of development, trust and camaraderie were prevalent.

Interaction

Communication problems are widespread in teams collaborating via distance and can be harmful to productivity and cohesion (Armstrong & Cole, 1995; Kiesler & Cummings, 2002; Younglove-Webb et al., 1999). One interviewee observed, "We're all so far away, I think it made it harder for us to put this project on our platter as a real goal."

Several team members believed that more face-to-face interaction would have produced more materials more quickly (Armstrong & Cole, 1995; Spargo & Kelsey, 1996). One interviewee

recounted, "I wish we had more time that we could spend as a group . . . it would be nice [to] talk to each other face-to-face."

These feelings of isolation and stilted productivity were evident at every stage of the team's development. However, the attitudes of the team members shifted from uncertainty to wistfulness about not spending more time together in person.

Trust

The team members felt comfortable enough with one another to be honest about their opinions and ideas. This dialogue was vital in bridging the space between team members (Tan, Wei, Huang, & Ng, 2000). One interviewee reflected, "If a team doesn't talk very often, they begin to disintegrate as a team, so [the facilitator] made sure that didn't happen and kept us in a dialogue . . . that also builds a sense of movement and progress in the group."

Most felt the initial face-to-face meeting helped to forge a bond that helped them to face project difficulties and achieve success (Katzenbach & Smith, 1993). One interviewee expressed:

I think that the travel money we put in to bring people [together] has been very critical. I like that kind of time because it feels more like a team; you're not the lone rangers trying to conquer this project.

Each member noted how critical the leader's role was in promoting communication among all the team members. This encouragement to be candid led to a deeper project commitment.

Miscellaneous Findings

A curious dynamic that emerged was the respect all team members held for the leader. According to one team member:

She's been doing a great job pulling us all together! You have to keep in mind that in order to pull 10 or 15 scientists together, you're going to have to have a lot of nerve and a lot of patience.

Respect for a team leader is not an unusual phenomenon in most functional teams, particularly when that leader is considered to be of a higher status than the other team members (Meyers, Meyers, & Gelzheiser, 2001; Younglove-Webb et al., 1999). Research indicates that team members with the most status typically dominate communication, are critical and aggressive, and expect deference from lower status members (Meyers, Meyers, & Gelzheiser, 2001; Younglove-Webb et al., 1999). The team leader in this study had the least amount of status in the group, yet held the respect and admiration of the other team members. This could be due to the technical expertise the team leader possessed. Team members depended on her expertise in creating the Web-based resources they designed.

In addition, though the team leader was the principal investigator for the project, she encouraged team members to participate in the formation of project roles and deadlines. This inclusiveness, coupled with empathy, endeared her to the team. One team member expressed:

I can't thank [the team leader] enough for her leadership . . . I can call her at any time and she'll help me through a glitch or any number of silly little things . . . she's just always receptive to helping us improve our capabilities.

The ability to empathize with others has been identified as a component of effective leadership (Kellett, Humphrey, & Sleeth, 2002). Empathy has also been shown to "not only contribute to leadership emergence, but may also strengthen team member participation and engagement . . ." in self-managing teams (Wolff, Pescosolido, & Druskat, 2002, p. 520). This leader's ability to empathize with team members may have assisted her in prodding the team members along without pushing them too far.

Implications

Universities as well as funding agencies are emphasizing multi-disciplinary collaboration (Komives, 2003). The study reported here explored the perceptions of faculty involved in a multi-disciplinary, multi-institutional team project. As expected, the team's development followed the four stages of team development described by Tuckman (1965) (Figure 1).

Many of the obstacles to this team's success were due to pressures from their respective institutions. Strategies for evaluating and rewarding faculty participation in these projects must be developed. Systems for rewarding individual team members have been developed and used in industrial settings (Kerrin & Oliver, 2002; Sarin & Mahajan, 2001). Until a rewards framework is designed, faculty will remain torn between participating in collaborative projects for needed funding and the need to fulfill departmental requirements that reward individual efforts (Edwards, 1999; Frost & Gillespie, 1998; McKenzie & Lee, 1998).

The lack of recognition for collaborative efforts can be remedied. Departmental administrators can begin by acknowledging multi-disciplinary, multi-institutional projects as viable components of the

faculty workload. They must recognize that although individual efforts are an important measure of faculty productivity, collective efforts are equally important. Allowing faculty release time to participate in collaborative endeavors could validate faculty involvement in joint efforts.

In addition, examining the characteristics of successful team leaders will be critical for future research. In this study, the team leader was pivotal in determining the team's successes. Profiling leadership skills in successful multi-disciplinary teams could encourage future collaborative successes.

Another area begging further research is the role of empathy in the leadership of multi-disciplinary, multi-institutional teams. Participants in this study identified their team leader as a determinant in their success. The study of empathic leadership in multi-disciplinary teams has not been examined; this will be critical for future research.

The complexity and diversity of the problems facing today's Extension clients have heightened the need for Extension teams representing multiple disciplines, and in some cases, multiple institutions and multiple countries. To ensure the success of those teams, the results of this study and others must be used to form the basis for addressing obstacles to, and exploring the foundations of, team success.

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