Team establishment of self-managed work teams: a model from the field

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Abstract

Purpose – The purpose of this paper is to describe a model of team establishment that emerged from 64 teams comprised of mid-career working professionals.

Design/methodology/approach – A total of 64 similarly configured 18 member teams assembled for work on the same day and, thereafter, worked on similar tasks. A single representative team was observed throughout its process of its formation-establishment-using participant observation and interviews. A case report describing the process was co-constructed afterward. Individuals from remaining teams systematically compared/contrasted their experience with the case report. Qualitative analysis of 874 responses provides the basis for this paper.

Findings – Teams formed very differently than expected. A highly dynamic and rapid process was seen. The model suggests interplay between ongoing assessment of the context and organizing for work while norms emerge and work is performed.

Research limitations/implications – Individual comparisons/contrasts with the case report, unlike the case report itself, were not the result of prolonged engagement, persistent observation, triangulation, and co-construction processes. The research focus was on team development; implications for performance are not addressed.

Practical implications – Leaders can influence the speed of establishment through intentionality during the establishment phase. The rapid establishment process that emerged here may have application across a wider range of work settings—especially where members are experienced in working collaboratively.

Originality/value – The model of team establishment has likely application in other settings. The study also suggests the valuable insights that study informants can contribute to research.

Keywords Team formation, Team establishment, Self-managed work teams, Team working, Leadership

Paper type Research paper

Introduction

> I did not notice how my [team] formed [. . .] [W]e bonded without being aware of it, as is usually the case when you put a group of military people together. Our training and background and the way our lives change so rapidly has meant (at least in my experience)

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> military people make quick acquaintances and work well with almost anyone, usually because that's our only option (ICR 495).
>
> We never really experienced the "form, storm, norm, perform" stages; we pretty much jumped right to perform. Again, that should be the case among professionals and that's how I think we treat it (ICR 22).

For over 40 years, Tuckman's conceptualization of the stages of group development has dominated the academic literature and has often served as the framework that managers have used to develop teams (Tuckman, 1965; Tuckman and Jensen, 1977). During this same period, teams have increasingly spread across the organizational landscape and new theories to explain team dynamics have emerged. Salas *et al.* (2010) citing work from 2007 (Salas *et al.*, 2007), say that "there are now more than 150 models, frameworks, or theories" focused around team performance. This work has added richness to our understanding but has contributed little clarity; even the definition of what a team is remains "unclear or contested" (West and Lyubovnikova, 2012). Today, the charge for researchers is to study new forms of teams: "to study teams with dynamic composition or flexible boundaries, who operate at a distance through technology or who are attempting to operate with greater empowerment or autonomy" (Tannenbaum *et al.*, 2012, p. 21).

It is clear that we now have a greater appreciation of the rich diversity of teams and teamwork. Unfortunately, our understanding of team development processes has not kept pace; such processes have received limited attention in the empirical research literature. A key reason is that most studies of the phenomenon use quantitative methods capable of capturing only static structure; such studies, frequently limited to controlled settings, do not lend themselves to the examination of processes which unfold over time in real settings. Consequently, few studies have used methods of qualitative inquiry which do allow researchers to capture the rich dynamics of such processes. Furthermore, fewer studies of team development exist due to the fact that most studies focus on teams that have completed their development process; this is the case not only for quantitative studies (e.g., Kostopoulos and Bozionelos, 2011) but also qualitative studies (e.g., Bosch-Sijtsema *et al.*, 2011).

The present research addressed both of above concerns by utilizing qualitative inquiry to examine newly minted groups as they moved through the process of becoming teams. Being qualitative in nature, the study presented here also pursued a method of data analysis that allowed representations of the team development process to inductively emerge from the data while bracketing off existing conceptual schemes such as Tuckman's model of Forming, Storming, Norming, Performing and Adjourning referred to above and which still serves as the most common language around team development. Other important conceptual frameworks include:

- McGrath's (1991) Time, Interaction, and Performance Theory involving the development modes of inception, technical problem solving, conflict resolution, and execution;
- the Input-Process-Output Model which addresses the processes of forming, functioning and finishing and which has evolved to consider a wide range of mediating and moderating factors affecting team development (see Ilgen *et al.*, 2005); and

- Gersick's (1988) Punctuated Equilibrium Model which considers temporal pacing and the role of Midpoint Transitions during the group development process.

A number of other group development frameworks exist that space does not allow us to consider here, many of these frameworks further nuance the above models, for example Rickards and Moger's (2000) reworking of Tuckman's group development process and Morgan *et al.* (1993) combination of the team development processes of Gersick and Tuckman.

As frameworks assessing team development processes have evolved so too has the realization that there are many types of teams that may emerge from the formation process. The present research focuses on self-managed work teams (SMWTs), the most common type of team (Polley and Ribbens, 1998; Cohen and Bailey, 1997; Guzzo and Dickson, 1996; Hackman, 1990). Such teams are defined as "groups of interdependent individuals that can self-regulate their behavior on relatively whole tasks" (Spreitzer *et al.*, 1999, 340). Regardless of the type of team, however, it is a common understanding that most teams struggle to meet performance expectations. The assertion made over a decade ago by Lencioni still holds: "genuine teamwork in most organizations remains as elusive as it has ever been" (Lencioni, 2002, p. 187). Why is that? This remains an especially important question today given the ever-increasing reliance on some form of teamwork to accomplish tasks, particularly in situations where "rapid teaming" is needed (Seijts and Gandz, 2009) involving teams that have been variously characterized as "flash teams" (Tannenbaum *et al.*, 2012) and "swift starting action teams" (Wildman *et al.*, 2012). Clearly, desirable targets for research are organizational settings, such as the military setting of the present study, where rapid team establishment was augmented by the rapid teaming capabilities of the organization.

The focus of this study is on the early developmental phase of team formation. We refer to this period as "team establishment" – when a collection of individuals evolve into a reciprocally interdependent fully functioning team, a SMWT. Here, the SMWTs are referred to as "staff groups" composed of 1142 mid-career officers configured into 64 individual teams. Once formed, the teams remain stable entities and perform work tasks that approximate past and future field assignments. Studying the establishment process within the context of daily work routine provided the basis appreciating the richness of this process within a natural setting (Lincoln and Guba, 1985). According to these authors, a natural setting is needed as complex phenomena:

> [...] take their meaning as much from their contexts as they do from themselves [...] No phenomenon can be understood out of relationship to the time and context that spawned, harbored, and supported it (Lincoln and Guba, 1985, p. 189).

The teams studied here were "natural" groups of working professionals engaged in the process of team formation to conduct work tasks required of them in this educational environment.

Full establishment of a team occurs when the norms that govern a team's performance strategies (Hackman, 1987) are "intense," "crystallized," and have achieved full "normative power" (Jackson, 1966). For the qualitative inquiry reported here, the authors (the first author was on site) observed the process throughout the period of establishment and adopted methods to allow interpretation of the process to emerge from the research setting. While various frameworks describing team

dynamics broadened our awareness of how team establishment might unfold, our grounded approach occurred over time which we describe as two phases.

In Phase 1 of the study, one team (18 officers) was chosen and participant observation (Spradley, 1980) was used to capture its developmental story. A case report was developed to describe that process. In Phase 2 of the study, this report was distributed to 1124 members of the remaining 63 teams which was then used to develop an individual report which compared and contrasted their experience to the case report they were provided. A general model of team establishment emerged from analysis of the 874 individual reports that were submitted. The model we will describe, while retaining some terminology used by Tuckman, reflects a very different process.

This paper begins with a thick description of the study context to provide necessary background and subsequent evaluation of its implications by readers, followed by a discussion of the methods and explication of actions taken by the on-site investigator during the two phases of the study. Next, the phenomena encountered are interpreted and grounded in the data gathered. A model of team establishment that emerged from the data is then articulated followed by a discussion of limitations and avenues for future research. Implications for facilitating the early phases of the team development conclude the paper.

Context

This study was conducted within the US Army's Command and General Staff College and School (CGSC/CGSS) located at Ft Leavenworth, Kansas. Since 1882, the school has served to prepare mid-career officers for future leadership and staff assignments. Selection to the ten-month program is based on merit, and officers are informed of their selection approximately one year in advance. Two or three months before starting, officers move themselves and their families, settle in, and begin to anticipate the experience. Prior to their arrival, and without their involvement, attendees are assigned to a "staff group."

On the morning the program begins, the entire group (1,142 officers) assembles in a large auditorium. Over the next three hours welcoming speeches are given by dignitaries, including the post and school commanders and other officials. The speakers are keenly observed as they provide the first detailed information about the school, its curriculum, traditions, and expectations.

After a lunch, members from across the 64 teams begin to congregate in their assigned workspace. Each team has a similarly configured room with rectangular tables arranged in a horseshoe pattern oriented toward a projection screen in the front. The team is welcomed by their two faculty advisors (referred to as Staff Group Advisor (SGA) and Assistant (A-SGA)). Advisors are experienced military officers or civilians (mostly retired officers) and, for the next week or so, they remain with the team to facilitate team development and to assign preliminary work tasks. Thereafter, daily interaction will diminish and the team will become self-managed.

At 1 pm the team that will host Phase 1 of the study begins to assemble. The first author was present to mingle with the host team and to ease his acceptance as an observer and begin building the trust vital in a qualitative inquiry. During initial introductions, he mentions his previous roles as student and faculty member and his current role as researcher joining the team for the year. At the end of the day, he takes ten additional minutes to more formally introduce himself and to give an intentionally

vague description of the intended research. The stage had been set for launching into the first phase of the inquiry.

For many officers, CGSS represents their first experience at a multi-disciplinary school. Progressing through the ranks, they attended technical training programs with participants having similar backgrounds. In contrast, CGSS teams are diverse and represent a cross-section of military specialties – from infantry officers to doctors; from quartermaster officers to dieticians.

The central focus of the curriculum is on military operations at multiple levels – from brigade to corps and from single service to multi-service and from multi-service to combined (multi-national) operations. For each level of operations being studied, five teaching departments: tactics, logistic, leadership, history and joint operations provide instruction and subject matter expertise. Most of the work is team-based and involves analyses and operations plan development across a wide variety of hypothetical environments and force levels. The team is configured as a staff planning group to study a problem, develop alternative courses of action, engage in a decision making process, and sometimes test their solution in a simulation. Over their ten months, teams encounter a wide range of planning challenges that can benefit from the size and diverse experience of their members.

Across the cohort, most of the student population is comprised of active and reserve US Army officers though other military services (US Air Force, Navy, Coast Guard, and Marine), and international officers from approximately 50 nations are also represented. Attendees have completed between 11-13 years of service, 80-90 percent are in the grade of major, and hence, have age, career stage and work experience in common– although specialty branch officers (Medical Corps, and Adjutant General) may be older. Except for reserve officers the only work environment they have experienced since graduation from college has been the military. All members have undergraduate degrees and 59 percent have completed an advanced degree. Many of those without a graduate degree are enrolled in a graduate program that parallels their CGSS experience.

Having been in continuous service since college, the military assignment structure has provided a highly diverse set of assignments and work roles. Many of those postings involved extensive use of teams and opportunities to develop diverse team skills. As assignment lengths are generally short, members have encountered many highly diverse team situations and have personally led many teams.

Past performance evaluations are the primary basis for selection to attend CGSS. The school's capacity is such that at the time of this study only 50 percent of the officer accession group was selected to attend the school. The competitive selection process also suggests an additional point of similarity as members are high performers. As the post commander said in his welcome speech, "The fact you're here is a big deal. It will set you up for years to come."

Finally, most officers are arriving from field assignments where work tempo was as demanding as the most challenging corporate setting. Many of these assignments involved overseas deployment without their family, thus, many members arrive at this assignment anxious to spend more time at home.

Taken as a whole, team member composition across teams has much in common. This constitutes a unique research opportunity allowing for comparison of team processes and experiences.

The process of assigning the 1,124 members to teams is generally random while also seeking to distribute traditional work specialties (infantry, artillery and supporting specialties), Army specialty officers (doctors, lawyers, dietitians, etc.) as well as the International and Sister Service officers across the 64 teams. That is, each of the 64 teams shared many demographic characteristics such as experience, work differentiation, and gender.

A student staff group leader (SGL) is appointed for each team, based on seniority. SGLs serve as organizers of activities occurring outside the curriculum such as coordination of social activities. In the classroom, SGLs serve as the conduit of administrative information (e.g., schedule changes), which flows from the administration to the group. This officer's leadership rarely extends into day to day work. Instead, day-to-day leadership emerges informally as a shared enterprise as teams becomes established.

During the first week to ten days, all teams undergo a process of orientation under the guidance of their advisors. Presentations and exercises are used to orient the team to the school, the curriculum and to facilitate team development. Advisors (SGAs) are given resources for this process but often tailor them based on their experience and preferences. During this process, members are attentive to what their SGAs say and do as they are perceived to be important and credible sources of information. After two to three days of orientation, teams are assigned work tasks like those they will encounter in field units.

The host team was representative of the other 63 teams and was observed by the first author for the first eight weeks. The team began mostly as a group of 18 strangers, though three members had recently come from the same small post in California. The mean age of the team was 36 years and averaged 12.5 years of service. Much like the broader cohort, the group had "sister-service" officers (three), an international officer, two females and its SGL was a 41 year old judge advocate general (JAG) officer. Typical of advisors across the school, the team's SGA was a retired US Coast Guard officer with four years SGA experience and the A-SGA was a newly assigned active duty army lieutenant colonel. The team was selected as the host team through a generally random process though the researchers did request that the SGA be one with "typical experience." In sum, the host team was representative of the other 63 teams.

Methods

Gaining access to the rich team establishment processes of individuals across 64 teams was the primary strategic consideration of this study's qualitative research design. To accomplish this, the methods described in this section closely reflect the characteristics of naturalistic inquiry described by Lincoln and Guba (1985). These include inquiry within natural settings, reliance on the human as an instrument of data gathering and sensemaking, emergent study design, and ideographic findings whose application to other contexts is left to the reader.

To effectively capture the range of experiences across the large number of study participants the research unfolded in two phases. Phase 1 involved a naturalistic inquiry of a single team's establishment process which generated a rich narrative of one team's experience. In this phase, the on-site investigator's participant observation included the use of ethnographic field notes (Spradley, 1980; Jorgensen, 1989), informal discussion, and structured interviews (Spradley, 1979). Consensus between the SGA

and the on-site researcher was used to determine when team establishment was completed. The product of this phase was a case report (Yin, 1984) which described the team establishment process of the host team and was referred to as the Host Team Case Report (HTCR). As Phase 1 was proceeding, Phase 2 was being conceptualized and negotiated with the CGSS administration.

The cornerstone of Phase 2 was the review and assessment of the developmental narrative (HTCR) by members of the remaining teams. Reading the HTCR was intended to assist others in raising conscious awareness of their own experience. As much of their knowledge was tacit (Polanyi, 1962) – and informants "always know things they cannot talk about or express in direct ways" (Spradley, 1980, p. 11), reacting to the description helped to more clearly reveal their own experience. Individual case reports (ICRs) from remaining members were submitted and analyzed using "constant comparison" to develop our findings. The remainder of this section takes a closer look at how these methods were used in each phase.

Phase 1

Chronologically, Phase 1 began on August 18, when all teams first assembled and was completed on the day that the HTCR was completed, October 8. The intent of this phase was to learn the language, the culture, and to gain an appreciation of as many individual team members' perspectives as possible (Spradley, 1979). More succinctly, this phase focused on allowing the researcher, uniquely qualified given his experience with CGSS, "to grasp the native's point of view" (Spradley, 1979, p. 3).

Participant observation and the development of ethnographic field notes were the primary techniques used to gain an appreciation of an informant's understanding of their team experience. The researcher's initial observations focused on the ways by which individuals entered, made sense of, and began to interact within the team. The process was cyclical in the sense that as issues arose that were appropriate to individuals, or to the team as a whole, they were continuously reassessed and recorded in the field notes (Spradley, 1980; Van Maanen, 1988; Emerson *et al.*, 1995).

Interviews began early in the inquiry and usually were conducted at the end of each work day. They served to expand understanding, assess individual perspectives of team establishment, and to build rapport and trust. Interviews were also used to "member-check" the investigator's emerging interpretations – "the most critical technique for establishing credibility" and thus "trustworthiness" of the inquiry (Lincoln and Guba, 1985, p. 314). Formal interviews of individual team members were mapped out in advance based on questions that arose from the field notes and observations that had occurred on the day of the interview (16 were conducted). If a noteworthy event occurred, a judgment was made regarding which member would best provide insight into the occurrence. Although semi-structured in advance, interviews were sufficiently informal to provide what Schwandt (1997, p. 74). suggests is the need for "flexibility and responsiveness to emerging issues for [. . .] respondents". These emerging issues were pursued through clarifying or probing questions. Additionally, informal interviews and discussions were ongoing with team members and summarized in field notes throughout the period of observation.

The importance of trust is particularly salient. Informants allowed themselves to be observed and willingly shared personal opinions during interviews even though they had no clear idea of how their judgments would be used. The give and take of

one-on-one interviews is believed to have significantly contributed to the rapport that emerged. During a casual conversation after class one day, a rather sensitive document had been circulated among the team. A member offered it to the first author to read. He hesitated out of respect for team privacy; the member commented – "it's ok, you can read it – we trust you" (Member No. 12). This example and other gestures evidence acceptance and trust from the team.

Advisors, the SGA in particular, were key individuals for this study, serving as sounding boards for the researcher and collaborators in making a determination of full team establishment. Informal conversations nearly always included a question about the SGA's judgment of "how well the team was doing", or "how well did they perform their assigned task today." In this way, the researcher was able to check his own evaluation as it emerged. The a priori intent had been to stop the daily observation and interviews and to transition to developing the case report once the assessment was made that the team was fully "established." That point, was reached by September 8. We will describe the notion of "full establishment" more fully below.

The team had been quick to organize and perform assigned tasks from their first hours and days together. Within this short time, they had clearly reached a steady state – where the team was interacting in very similar ways each day. The next task was to openly describe the focus of the research with the team, and to engage them in co-constructing the team's development story.

The host team was given its second presentation describing in detail the research that was being conducted. In that presentation, members agreed that the team was fully established, and that each would record his or her own impression of the formation process. Over the next two weeks the on-site researcher facilitated a process of co-construction that resulted in a final version of the HTCR that was unanimously approved by the team.

The case report that emerged from this process was both succinct and robust in its recapitulation of the development journey of the team. Though often diverse in its structure (Stake, 2000) case research is valued for the detail and depth of insight. It is an inquiry that investigates within a real-life context where the boundaries between phenomenon and context are not clearly evident and where multiple sources of evidence are used (Yin, 1984, p. 23). In the longitudinal case report, time is the organizing device and the dynamics of change are the primary focus (Jensen and Rodgers, 2001, p. 238).

Phase 2

The HTCR served as a reference point for members of the remaining teams to "compare and contrast" with their own experience. Its length, 4.5 single-spaced pages, was sufficiently detailed to stimulate reflective development of an ICR) Instructions that asked for reflection on the team establishment process included the following:

- Describe the process by which your staff group has formed. Compare and contrast your experience with the HTCR.
- Describe at least one surprise you had [in the process] [. . .].
- Describe one event [. . .] that influenced the group [. . .].
- Describe patterns or norms that emerged in your group [. . .].

Lincoln and Guba (1985, p. 124) argue that "the person who wishes to make a judgment of transferability needs information about both contexts to make that judgment well". In this setting, members had the HTCR and their own firsthand experience to draw upon to describe their own experience of team establishment. The remainder of this section details the analysis procedures and interpretation of the 874 ICR submissions (874/1,124 = 78 percent response rate).

Members electronically submitted their ICRs to the first author. Each ICR was reformatted to conserve space and saved within ATLAS.ti, a computer-aided qualitative text analysis software. A total of 50 ICRs were randomly used to identify an initial set of codes for use in distinguishing comments across the entire collection of ICRs. An example of one of these codes was, "initial behaviors." This code was used to distinguish those kinds of behaviors that members noted as occurring at the beginning of their team interactions. Another code was, "standards." This code was used to distinguish comments made about the quality of the team's work. Once the set of codes emerged from the reading of these 50 ICRs, they were reinserted into the full set of ICRs.

Reading and coding of the ICRs by the on-site investigator began anew relying on a process of "constant comparison" following in the tradition of Glaser and Strauss (1967), Lincoln and Guba (1985), Maxwell (2005), and Strauss and Corbin (1990). In this method, initial data generate simple representations of the phenomena which are continually elaborated as further incoming data are carefully compared against the constantly emerging and more complex representations. As ICRs were read and coded, themes emerged as well as an impression of the establishment process that was unfolding. In total, 6,556 quotes were identified, sorted and coded to reveal these themes.

To ensure "trustworthiness" – the naturalist's analogous conceptualization for validity and reliability – across the study a number of steps were taken consistent with Lincoln and Guba's (1985, pp. 301-31) five criteria which included activities such as prolonged engagement and persistent observation as well as member checking and peer debriefing. Peer debriefing was of particular value in ongoing review of the data and discussion of emerging understanding of the findings with the co-authors. The remainder of this section describes the themes which emerged from the data.

Emergence of themes

Assessing

The beginning of the team establishment process in this setting occurs at the point of initial assembly, day one, minute one. Beginning on the morning of August 18 as officers assembled in front of the school for a welcome ceremony for the 89 international officers, members were assessing their new situation. Afterward, members walked inside to the large auditorium to hear welcome and introductory speeches from senior officers. During those presentations, the purpose of the program was articulated and expectations were shared. The first theme that emerged centered on "assessing." This process of assessing focused on three aspects of their new situation: the self, others and the context (the school and program).

The process of "assessing" moved front and center after lunch as teams began to assemble in their work areas and members began to interact with teammates for the

first time. Apprehension and uncertainty was not unusual as members contemplated their situation:

> I only had one thing going through my mind the first day of class, "What in the world have I gotten myself into?" As a sister service officer, I felt I was way out of place. What would I have in common with all these Army dudes? (ICR 001).

There was much more focus on watching and listening than on speaking throughout the first day as members shifted focus and reflected on self, teammates, and context. The remainder of this section will focus on this process – primarily on self-assessment.

Assessing self. The focus of a member's self-assessment, especially during the initial period with the team, was toward determining one's role and how they would fit in the team. This assessment would later be combined with judgments of the other members, and the context, resulting in a set of decisions around personal roles, goals, and expectations. In Case ICR 001 above, the member voiced his concerns about fitting in. He continues:

> However, just a few minutes into the first day, my fears were alleviated. Our SGA [Staff Group Advisor] asked the student sitting at the end of the row to count off by twos. He responded by saying "two." The class burst into laughter. After composing himself and realizing his error, we proceeded to count around the classroom, "one, two, one, two," etc.. I'm going to be just fine, I thought. These folks are not much different than me (ICR 001).

This officer's perspective is typical of the tentative first hours members experienced.

Another self-assessment issue concerned one's team role. Part of the role was assumed to be based on a member's occupational specialty and previous assignments. For example, the "intel" officer was expected to contribute the intelligence perspective whenever a work task required it. However, the member's informal role was equally important. The following perspective is typical:

> During the first week each person spoke little, prepared to answer direct questions but slow to show much emotion. The walls of protection remained in place and each person seemed to be looking to find where they fit on the team. We most often used our branches [work specialties] to determine what a person knew and where they fit. During this week most team members seemed to find a spot on the team that fit them; with that the group started to form into a team. During the second week we started to speak to each other more [. . .] and we started to talk about our personal lives with one another and the start of friendships could be observed (ICR 90).

The member above makes the almost universal observation that members knew what their formal role on the team would be: We most often used our branches to determine what a person knew and where they fit. In the following one member suggests the informal contributions members made:

> We have settled within our particular roles, mostly by default, such as those who write observations on the board, those who generate the briefing templates, and those who can be relied upon to spur group discussions. The filling of these particular roles has [. . .] facilitated the group's efficiency when executing tasks [. . .] Our "assigned" roles have also allowed the group to identify those officers who are less likely to participate within group discussions and those officers who will provide minimal effort towards assisting the group (ICR 383).

Together these two citations suggest the questions shared by members: "What is expected of me, and, how will I contribute to the team?" While consciously or

unconsciously contributing based on their subject matter expertise and deciding about informal roles, members were also deciding about less formal contributions they would make to the team.

Assessing others and context. Members engaged in ongoing assessment especially during the first hours and days together. Just as members sought to identify their own roles and expectations for themselves, they were also seeking to assess their teammates and the broader situation. The following citations provide an overview of some of the areas where assessments were being made with respect to others and the context in which members were to begin work:

> [. . .] all group members, regardless of experience and branch, looked at each other as equals [. . .] this indicated the professionalism as well as the humility of group members (ICR 295).

> [surprise over] how diverse, talented and intelligent all of the individuals were in my small group [. . .] these are some of the best and brightest officers I have ever served with (ICR 387).

> [. . .] in general, people were not reluctant to engage in conversation and relay experiences, but were reserved in giving out too much personal information. As people became more comfortable with each other and were more likely to accept the peer group as equals, more useful discussion was possible (ICR 270).

> It is our first day as a staff group. Who were these 18 individuals carefully deciding where to sit at the u-shaped table? What experiences and knowledge will they bring to the table? Can we work together as a team? Will everyone pull their own weight? (ICR 665).

> From the very beginning, we appeared to gel very well as a group. From Day 1 there has been no hesitation in getting to know each other professionally and personally, engaging in casual and jovial conversation, etc. I do not recall any awkward "feeling out" period. This is attributable both to the great individual personalities within the group and to the great tone set by our SGA from the beginning (ICR 693).

> During the initial meetings our SGA and subsequent instructors had each of us introduce ourselves to them and the rest of the class multiple times. Additionally, we were directed to find a different seat every day. The seat moving lasted about two weeks, but allowed each of us to become comfortable with each other over a short period of time (ICR 562).

The citations provide a brief sample of the kinds of assessments that were ongoing for team members. Across a wide range of areas members sought to discern who their teammates were and what skills and experiences they would bring to the group while also seeking to understand their broader work context with its unique requirements and expectations. This process also unfolded dynamically as members selectively observed team mates in daily interactions and work. Over time, assessments solidified in parallel with the team's ongoing efforts to conduct work. Teams actively engaged in "organizing" in order to meet work demands as "assessing" was occurring – and gradually decreasing.

Organizing

> Our group organized and bonded immediately. We have incredible respect for each other and the varied backgrounds we come from (ICR 845).

Work in this setting often consisted of executing application exercises which required members to read supporting materials and then determine appropriate role

assignments. Typically, self-management drove this process and teams would be given wide leeway in distributing work. Sometimes though, a faculty member would assume the role of "commander" and designate sub-teams or assign particular roles leaving the team to complete the organization. Though the process of organizing may have varied across groups, the citation above, and the one that follows highlight a dominant theme – it happened very quickly:

> [W]hen we break down for a PE [practical exercise], no one wastes time. People instantly begin to gather necessary tools or information to complete the task (ICR 781).

Even during the first days as a team the efficient process of organization was characteristic across most teams. This seemingly automatic process was facilitated in part based on the assumption of roles based on experience and specialization; even when members assumed new roles, the organizing occurred naturally – without difficulty or much discussion. Quickly, norms emerged around the process of organizing:

> We have identified some people in the group who have particular expertise or who have certain habits in group work efforts. However, we mix up who does the actual stand-up briefing each time, no one ever dominates a group for long [. . .] People voluntarily restrain themselves from criticizing the opinions or work of others, and if they feel themselves talking too much or dominating a group effort, they slow down and let others be involved (ICR 696).

Though the first tasks assigned to the team were relatively simple, those activities facilitated interaction so that as tasks became more complex and demanding teams were able to "instantly" begin to organize. Self-monitoring capabilities emerged within teams and members responded out of a sense of personal responsibility. Sometimes however, the team was simply subdivided by seating arrangement or some other random method. The following citations suggest this as well as the process of member's self-monitoring:

> Everyone is in the seats they took on the first day. When given choices for small groups, we generally worked with those sitting close to us (ICR 134).

> The faculty nearly always separates us into the same groups to work with. However, I have yet to see the same person lead the group twice in a row. Without overtly discussing it, the unwritten rule is, if you have not led a discussion or group project recently, then it is your turn to stand up and do so (ICR 499).

Teams tended to quickly identify a way of organizing and then stayed with it. For those that did not develop new approaches, the opportunity for process gains was missed. The simple decision to frequently change seat assignments had important implications for process gains:

> The one event that I think has influenced the group is when we moved our seats for the first time. This forced us to meet others, forced us out of our comfort zone, and in a critical way, changed some of our roles. By moving seats, it was as if our little fiefdoms were removed and we saw the bigger picture of the course. So far we have had three moves. In fact, we, as a staff group, almost look forward to it (ICR 516).

Throughout the ICRs, whenever the practice of randomized seating was used, process gains were described. In contrast, process losses came with lack of randomization:

> We have become comfortable in our working groups and tend to not deviate from established teams – this is good and bad. We are used to one another and get things done, but because we fell in on traditional leaders by branch we may be missing out on people that may have something to teach us [. . .] It would be nice to hear some other opinions (ICR 837).

How teams organized their work influenced their team dynamics, member satisfaction, and likely, in the long-term, quality of work product. Though their first impulse was to contribute along lines of branch specialization, over time members began to contribute in ways outside of their comfort zones:

> The first area where my staff group differs [from the HTCR] is in the area of leadership [. . .] the case study stated the same people tend to fall into the same roles when the group is divided for practical exercises. In our staff group, people seem to be especially sensitive to this dynamic and effort is made by all to share the load. Certainly, most people have their preferred roles, and there exist some common themes, but rarely do we have the very same people doing the same tasks in group exercises (ICR 24).

The citation above also mentions a typical perspective on team leadership – most often it was shared around areas of individual expertise. The following is an exception:

> Within the first two weeks the group dynamics were essentially established and social norms fixed. By the end of the first month the class leaders were informally identified and habitually led discussions and organized required practical exercises (ICR 481).

Regarding "organizing" processes, two strong trends emerged from the data: the process was a quick, seemingly natural process, and once norms became established, they were seldom changed. The large team size likely contributed to this dynamic, but additionally, there were no incentives improve processes once task performance strategies were determined. In fact, ICRs provided no clear example of a team taking the time for the reevaluation of their team processes.

Performing

Teams were assigned work tasks soon after they assembled and they successfully accomplished these tasks. "Performing" occurred quickly rather than as the end-stage of a Tuckman-like formation process. While teams were sometimes tentative in their initial interactions, when given a task they were quickly able to "assess," "organize," and "perform":

> The first week was very much the same as depicted in the [HTCR]. We went through the mandatory events and in between we worked on team building. Team building was the more critical portion of the week as it helped established our personal relationships. Given the instant interaction of classmates, the professional interaction happened almost instantaneously. The level of professionalism permeates all we do (ICR 423).

Members typically held assumptions that they and their teammates were capable of immediately working together. Though these capabilities were evident, it was also clear that the quality of output was not uniform across the various teams:

> The reasons for the level of quality achieved may have changed from the initial attempts, but the results have not. I have seen that our group process, especially our predictable ways of working together, played a role in the quality and approach we took to the work (ICR 780).

> The surprise is this, most of the group members settle for C or D level work and never contributed more than they have too. In my opinion, the group has slowly transitioned to an element that wants to do the minimum; get out of class as soon as possible; and, settle for sub-caliber effort [. . .] our group is simply "checking the block" [. . .] (ICR 805).

Variability in product quality appears to be related to the task performance strategies as well as the set of norms that emerged to govern those work routines on a given team. Though not the focus of this study, it was apparent from the data that some teams performed at a high level while others did not. In either case, the norms reinforced the quality and standards for teamwork.

Norming

Analysis in previous sections indicates that norms emerged around the processes of "assessing," "organizing" and "performing." As members interacted around their work, intense normative expectations quickly emerged and crystallized. As this occurred, members came to understand how their unique skills and background would contribute to the group and what form their daily routine or personal "battle rhythm" (ICR 457) would take. This rhythm provided a sense of control over daily life and provided the basis for the decisions members made with regard to their engagement with their team. One widely expressed norm was associated with the extent of daily class time. The following statements illustrate the expectation of work efficiency: "get out of class as soon as possible" (ICR 805) and "get home by 1200 hrs" (ICR 460).

Norms emerged from a combination of conscious effort and tacit agreement. Rapid crystallization of norms was facilitated by years of military service with comparable team experiences. Acculturation to military life yielded many shared assumptions, beliefs, norms, and values that team members brought with them to CGSS. The combination of these implicit understandings, and sometimes the explicit negotiations of team process, resulted in what were labeled ROE ("Rules of Engagement"). Teams were given an exercise to facilitate identification of individual objectives, expectations and priorities as well as team objectives. Collectively, the summary and distribution of these agreements were referred to as the Team ROE. For those teams, including the host team, that meaningfully worked through this exercise, the ROE quickly evolved into implicit taken-for-granted team norms. However, approximately 50 percent of the teams did not engage in this exercise – although it is not clear whether this was at the SGA or the team's suggestion. The most common rationale for not conducting this exercise was that it was not needed:

> We did not seek to establish any rigid rules, or ROE, that the class was expected to adhere to. Rather, we looked upon each other as professional soldiers and expected each other to act accordingly. Instead [. . .] we moved directly into the work (ICR 499).

For those members that discussed ROE, many of their descriptions extended more broadly to describe individual goals and personal priorities; this may have contributed to the cultivation of a deep level of mutual respect between members:

> The one event that has most influenced the group was the establishing of the class rules. By establishing this "living" document early, it set the boundaries for the class and enabled us to respect and listen to each other without having to worry about personalities. These rules have become almost transparent during daily interaction. A higher level of respect for each other's

> experience and knowledge has been created because the class rules have forced us to put our egos aside and listen (ICR 381).

In some cases, where teams did not explicitly discuss their ROE, members expressed regret. They recognized that having that discussion might have helped their team:

> I was very surprised that we were not directed to develop class rules of engagement (ROE) and group goals [. . .] No one, to include myself, felt it was absolutely necessary and therefore it never seemed to come up. Hindsight tells me that an agreed upon ROE and perhaps some group goals would have been of some value to our group dynamics and actions in the classroom. I realize now that we chose to take a road without the necessary curbs to keep us in the street when certain actions occur in the classroom that either detracts us from the instruction or stifles participation (ICR 283).

> Part of the problem, as I see it, is that our group never established class ROE as the case study group did [. . .] My group [. . .] belabors the point regularly [and we] end up muddying the waters and creating antagonism (ICR 9).

Norms also emerged around how intra-team conflict and dysfunctional behavior was addressed or not addressed. One member discusses her approach to dealing with conflict:

> The big surprise came just a couple of weeks ago when as the staff group leader, I had the unfortunate responsibility of bringing the rest of the class back to reality regarding the rules of engagement for the classroom. I had noticed over several weeks that class members were coming back from breaks late, coming into class at the last minute and not completing the requirements asked even if it was last minute. After taking the heat on several occasions for not knowing where everyone was or why he or she were not coming back from breaks on time, I decided I had to do something [. . .] I decided to bring the class in early one day and after a few administrative notes, I gave them a quick down and dirty on how I expected the class to run (ICR 479).

The data provides few examples where one of the team members so forthrightly confronted the team. A CGSS-wide norm was that confrontation was to be avoided. Members avoided open discussion of conflict and there was little evidence suggesting that individual members confronted one another in private:

> Likely because we did not develop an ROE, individual comments are not short and to-the-point. Our group has a few individuals that don't realize that they are "hogging air-time." Other, perhaps more professional, or sophisticated officers have outstanding insight that we could all learn from, but don't often get the opportunity to input. Someone will have to eventually point this issue out to these individuals (ICR 119).

> I am surprised that the group has not "Gelled" better than it has. Most peer groups I have been involved in "Gelled" pretty quickly, normally thru social events. We have had several social events, but attendance is usually 50 percent or less [. . .]. Bottom-line: events are not conducive to parents with small kids [. . .] We need to change this or it will be a long year (ICR 121).

Members were quick to express various kinds of dissatisfaction in their ICRs, but none of these members went on to describe how they took the initiative to discuss their concern(s) with the team. Such a norm is clearly dysfunctional:

> In group dynamics there is usually a storming phase [. . .] intra-group conflict occurs. This turmoil can be attributed to individual personalities, group control, and etc. Surprisingly, our

> group has not had any tiffs, disagreements, or conflict to date. It appears that people hesitant to say or do anything that could create such a situation (don't want to rock the boat) (ICR 290).

The fact that members avoided confrontation is puzzling – and concerning. The lack of functional conflict resolution norms and the strong presence of dysfunctional conflict avoidance norms clearly was a product of choices members made early in their development process. In sum, the rapid team establishment and lack of a process to re-examine team norms suggests the possible contribution such a step might have provided to the teams.

Model of team establishment

Taken together, the themes provide a model of team establishment (see Figure 1). The first two elements, "assign" and "assemble" were discussed earlier and are not considered further. The remainder of this section will focus on the remaining elements: assessing, organizing, performing, and norming.

This model represents a view of the establishment process that is both cyclical and dynamic. It is cyclical as individual members are constantly moving between the elements of the model (assessing, organizing, norming or performing). As a task is given members assess the situation and begin to organize and assist in performance. It is also dynamic in the sense that each member of a team, at any point in time, may be at a different "place" in the cycle. For example, one member may be making a personal assessment around a role he or she might play to support a project while another is organizing teammates to begin work. Over time, however, assessing and organizing activities become routine as norms begin to crystallize and collectively regulate social behavior and team performance.

The process of team establishment occurs in a context that includes common and unique elements for each member and team. The discontinuous circle surrounding the

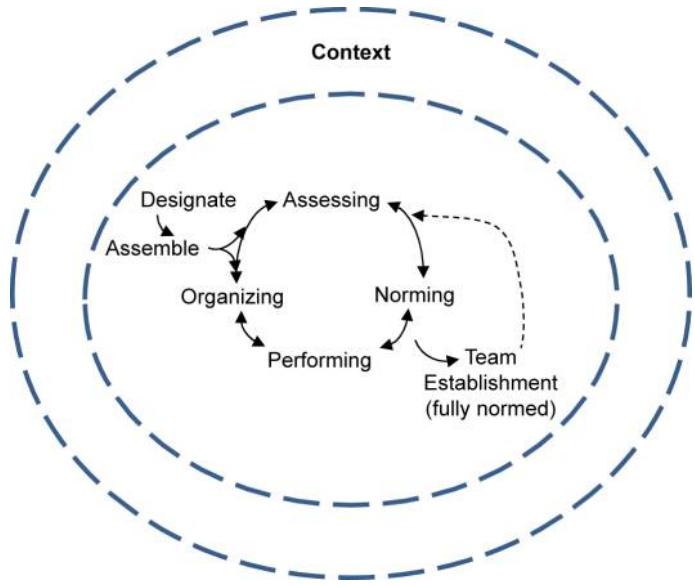

Figure 1.
Model of team establishment

establishment process suggests the openness and variety of the contextual forces members described. Each member is influenced by a unique set of forces based on their personal situation. For example, one member might have chosen to coach their child's soccer team, while another is separated geographically from family and seeks to travel as often as the work schedule permits to reunite with family remaining at another post. Another member might be pursuing a graduate degree at night while another might be struggling to understand the curriculum expectations. Taken together, the contextual factors that each member uniquely identifies and addresses have implications for members' motivation, level of effort and, ultimately, team performance.

When assigned team tasks, members made preliminary judgments ("assessing") that were sufficient to "organize" and "perform" the work. Over time, members would make additional assessments or new decisions as appropriate. And, as norms of behavior emerged for individuals and for the team as a whole, members would shift less frequently between elements of the model. Those teams that were "fully established" were those whose members found themselves focused primarily on "performing" and less on "assessing" and organizing." In the "fully established" team, norms led to interaction based on habituated behaviors.

A key conclusion of our investigation is that this establishment was very rapid. For the host team, stasis was achieved within 17 days of start-date. Across nearly 900 ICRs analyzed for this study, it appears that many teams reached this point even more quickly – most commonly within a week or two.

Two important elements of the model were inferred from the data as members identified process shortcomings. First, it was clear that team norms formed very quickly, and thereafter, they did not change. Once fixed, norms frequently led to shared expectations even though sometimes the norms were dysfunctional and adversely affected the team experience. The second observation was that norms were not challenged once formed. Rarely did a member take the initiative to engage the team to re-evaluate team norms. The lack of an institution-wide process requiring such a re-examination was also not present to encourage this step.

The feedback loops are added throughout the model to show that individual members frequently shifted back and forth between model stages as they perceived the need. The data loops returning to the "norming" stage were added as members recognized the need to reexamine norms – although few teams did so. Since teams were together for nearly a year, it is possible that some teams engaged in such a review process – although we found no such evidence. We can conclude, however, that within the timeframe the ICRs encompassed (two to three months), teams did not conduct such a review – even though such a process would have been of value.

Perhaps related to the development of dysfunctional norms is our finding that norm crystallization was often achieved without significant "storming" – intra-team task or relational conflict (Tekleab *et al.*, 2009). Without interpersonal conflict, members appeared to focus on assessing, organizing, norm development and performing. Though storming is part of the Tuckman model, even he might not have been surprised by this finding as he said:

> Few studies [. . .] have concerned themselves with the developmental sequence in natural groups [. . .] (Tuckman, 1965, p. 393).

Perhaps storming is not prerequisite to performance in natural groups comprised of working professionals. Interestingly, a small number of ICRs made reference to the form, storm, norm, perform sequence while simultaneously saying that training and prior experience allowed teams to employ a process not requiring storming. Members believed that their professional norms and perceived social expectations removed the need for storming.

Though many members expressed points of dissatisfaction with elements of their team experience, it is not clear whether members were being avoidant or, simply, that conflict issues were not worthy of team-wide discussion. It is clear, however, instances did arise where members should have confronted the issue but failed to do so. The data indicate avoidance – but the reasons for this were not clear. Lencioni (2002, p. 188) would suggest that the conflict is an essential ingredient in effective teams and that the lack of healthy conflict would reflect an "absence of trust." It is not clear whether conflict avoidance was a function of absence of trust, a function of dysfunctional professional norms endemic in military systems, or a function of norms unique to the educational context at CGSS.

Limitations

This study has provided the opportunity to investigate a very complex phenomenon in a setting simulating a work context. The stability of team membership, the large size of the teams, and the similarity of work requirements helped reveal many of the findings. The authors believe large team size helped draw attention to issues that may have been less prominent in smaller teams. Nevertheless, these and other features also suggest limitations particularly with respect to the second phase of our investigation. A key limitation was the unavailability of data pertaining to the comparative performance of the 64 teams and thus the lack of opportunity to factor that performance into our analyses. In addition, the second phase of the study clearly lacked a number of desirable ethnographic qualities of the study's first phase.

While the Phase 1 inquiry, which led to the construction of the HTCR, had substantial "credibility" due to prolonged engagement, persistent observation, triangulation and member checking (Lincoln and Guba, 1985), Phase 2 of our research was unable to utilize these positive features of qualitative inquiry. In particular, without prolonged engagement, ICRs may have been generated in a less trusting environment and thus were subject to more personal distortions. Without persistent observation, ICRs were more likely to lack depth and attention to phenomena most relevant to the study focus. Without triangulation, including the use of direct observation and interview, ICRs were less likely to yield contextual validation. Lastly, since ICRs were unilaterally generated by individual team members and lacked member checking, by definition there was no opportunity to have interpretations challenged, corrected, and meaning negotiated. Instead, investigators relied on comparing and contrasting ICRs submitted from members of the same team in order to assess the degree to which interpretations were shared.

In addition, a set of concerns revolve around "transferability" issues (Lincoln and Guba, 1985). Within our study an issue is the role that the HTCR might have played in influencing ICR development. Closer examination of the data could be conducted to distinguish between what members deemed as "transferable" to their experience and potential bias that might have been introduced by the HTCR. Regarding the

"transferability" of our findings to other contexts, a concern is the degree to which adequate "thick description" (Geertz, 1973) is available in a journal article format for potential users of our findings.

Concerns also revolve around the trustworthiness of the inquiry in terms of its "dependability" and "confirmability" (Lincoln and Guba, 1985). As the process and product of the inquiry were not systematically audited by a third party, the authors cannot claim that either of the above criteria was met. At a minimum, it is hoped that the reader is able to use the data cited throughout this paper to attest to the confirmability of our interpretations and conclusions.

Implications

> [. . .] I would dare to say that while each staff group can initially be generalized into a preconceived category, each group is also unique. While staff groups as a whole can be pigeonholed into a generic category, the very essence, dynamics and heart of each staff group is exclusive (ICR 760).

Understanding and controlling unique complex and dynamic processes relies on the thoughtful engagement of participants – those immersed in the situation. Through development of their case reports, team members provided valuable insight into the process of team establishment that they uniquely experienced. Interpretation of this data by the investigators led to the construction of a non-linear and dynamic model of team establishment with a number of implications for those seeking to establish work teams particularly in educational settings. The study of these teams in their natural setting, or "in the wild" as Salas *et al.* (2007)have encouraged us to do, provides team leaders a basis to consider their own approach to team establishment within their own particular situation.

Although not visually depicted in the model, the speed with which the establishment process occurred was noteworthy. Much like "rapid teaming" (Seijts and Gandz, 2009), teams here, quickly and effectively performed work functions while the process of establishment occurred in parallel. This study also has shown that, in some contexts, it is realistic to expect that teams can begin to perform in short order while members continue to make ongoing assessment of their individual situation and as norms to govern team interactions develop in parallel. Our informants attribute this capacity to years of training and experience working in teams. This suggests that those leading team establishment processes ought to be highly intentional in facilitating the process.

Early events have disproportionate influence on the process of establishment and the team's subsequent interactions. Therefore, intentionally taking action supportive of long-term effectiveness can be helpful during the team's initial interactions. Also, given the speed with which norms emerged, it would be appropriate to selectively slow down the process. Teams received developmental support, but more could have been done to provide better process facilitation (Schwartz, 1994) – primarily facilitation supplied in the SGA role. One action suggested by the data would be to ensure that all teams find a way to be more explicit in discussing individual expectations. Though the timing of such discussions would vary between teams, such conversations are important and it appears that having them occur early in the team development process might be appropriate. It also seems essential that teams adopt a way to revisit their norms over

time as some norms may be viewed later as inappropriate or in need of modification. Clearly, more intentional steps could be taken to ensure that teams are engaging in systematic collective reflection-in-action and, of course, continually reflecting on the soundness of their reflection-in-action processes (Schon, 1983).

Many teams did not engage in storming "characterized by conflict and polarization around interpersonal issues, with concomitant emotional responding to the task sphere" (Tuckman, 1965, p. 396). One team member described storming as "more like a drizzle" (ICR 432). Appropriate conflict does play an essential role in high performing teams and teams must have a process for dealing openly with it (Lencioni, 2002). Some teams did not experience conflict while other teams appear to have been excessively avoidant of conflict. These teams had not developed conflict management strategies supportive of their long-term teamwork.

The implications of this work have emerged from an organization acknowledged as having a very strong organizational culture. It is reasonable to ask how much the processes observed have been influenced by the shared sets of experiences among those with so much in common. We do believe that the strong culture is an important factor and is very much tied to our results. As indicated above, we have observed little conflict in the course of team establishment. One might expect this to reflect the hierarchical structure of military leadership – a "yes sir" attitude. However, in the setting studied, members were peers and we believe the lack of conflict was more likely due to early systematic assessment of individual goals and objectives as well as the nature of the work being done. Those seeking to facilitate team formation in other contexts will necessarily need to consider the range of cultural norms and other factors that might have bearing on the formation process in their unique situations.

Conclusion

As teams continue to infuse the fabric of modern organizations, so too has our collective ability to establish effective work teams. Nevertheless, this study makes clear that good teams don't just happen – they still require much effort and intentionality. As the opening quotation said, "[. . .] [W]e bonded without being aware of it, as is usually the case when you put a group of military people together". The model of team establishment presented here represents a more typical process of team establishment that reflects the more contemporary experience of team establishment. While arising from within a military setting, the findings here likely hold insights of value for those seeking to more effectively establish teams in other settings. Our understanding of team establishment as proposed by Tuckman continues to evolve and adapt to the changing demands of our world.

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