

# **HAVING A BALL CATCHING ON TO TEAMWORK: AN EXPERIENTIAL LEARNING APPROACH TO TEACHING THE PHASES OF GROUP DEVELOPMENT**

**Stephen Betts, William Paterson University**  
**William Healy, William Paterson University**

## **ABSTRACT**

*The ability to work in teams is a key critical skill that potential employers value in our graduates. In teaching about teamwork, we frequently present Tuckman's stages of group development. This experiential exercise uses the tossing of tennis balls to bring the student through the model's stages -forming, storming, norming, performing - in a fun and active fashion. In the debriefing, the students describe what happened. Their observations are then used to introduce and illustrate Tuckman's intuitively appealing and useful process model.*

## **INTRODUCTION**

Employers inform us that teamwork skills are among the things that they most value in potential hires. They understand that the ability to work in teams is associated with high performance (Lyons, 2008). Although as academics we frequently give our students team projects and have them work in groups, we rarely explicitly train them to work together. One key element often overlooked is the process through which a team moves from initial formation to high performance. There are many models of group formation (Adams, 2009; also see Braaten, 1975 for a discussion of 14 models); however the most popular and recognizable is Tuckman's (1965) Stages of Group Development. Tuckman's model has four or five stages - 'forming', 'storming', 'norming' and 'performing' (Tuckman, 1965) and occasionally 'adjourning' (Tuckman & Jensen, 1977). This model is intuitively appealing and easily understood, but there is a difference between intellectually understanding it and internalizing the dynamics of the model. By using an experiential approach (Kolb, 1984) it is possible to achieve a deeper level of learning and skill development (Lyons, 2008).

In this exercise we bring groups of students through Tuckman's stages of group development. They experience it and internalize it, gaining a deeper understanding of the dynamics involved than is possible from reading, lectures or discussions.

## **TEAMWORK**

Organizations are interested in teamwork. Teamwork skills are among the most valued skills sought by employers. In the mid 1990s there was a resurgence of interest in teamwork, and this interest has been steadily increasing. Information and communication technology and the way that it enabled changes in the nature of work cause the resurgence in interest in

teamwork. As the technologies emerged, the roles of teams and teamwork in organizations evolved (DeRosa, Hantula, Kock & D'Arcy, 2004; Taborda, 1999).

The preponderance of theory building and empirical research into groups and group processes were done in the 1950s and 1960s. The field went essentially dormant in the 1970s and 1980s. The resurgence in practitioner interest in teams facilitated by changes in technology and the nature of work brought renewed interest in teams and teamwork by academics. The advantages and disadvantages of teams are well established (Nurmi, 1996). For example, groups tend to perform better than individuals when the complexity of the task is high because individuals are bounded by intellectual and information-processing capabilities (March & Simon, 1958). Groups have an additional advantage because they offer a diverse pool of skills and information (Ray & Bronstein, 1995). However, we know that groups rely less on heuristics than do individuals and take more time to make decisions (Allison, 1971; March & Simon, 1958). We understand that utilizing groups bring the danger of 'social loafing', that is the notion that individuals may not expend as much effort in the group setting as they would have if they were working alone (Latane, 1981), but this can be avoided somewhat if participants are aware that individual effort can be identified (Latane, 1981).

The primary types of teams found in traditional organizations with command-and-control type hierarchies are those where the structure, the methods and procedures, and the function, goal or purpose are fixed or easily determined (Callanan, 2004; Brodbeck, 2002; Taborda, 1999). Within this area are teams with both a short-term and a long term nature. The short-term or temporary teams are formed for a specific task or time period and disband when the time period or task is completed. The long-term team stresses the more permanent nature of work teams compared to previous notions of occasional, ad hoc committees or informal groups (Paulus, 1989).

Today there is a call for self-organizing teams or 'pockets of excellence' even in organizations dominated by traditional command and control hierarchies (Brodbeck, 2002). Self-leading work teams are a group of interdependent, highly skilled employees responsible for directing the work that they do (Ray & Bronstein, 1995). Virtual teams are also being used more and present their own set of challenges (Mueller, 2012; DeRosa, Hantula, Kock & D'Arcy, 2004).

In the team-based organization the use of teams has been determined to be the organization's best way of developing long-term competitive advantage by utilizing its human capital (Calanan, 2004; DeMent, 1996; Barney 1991). The emphasis in team based organizations is collaboration and communication skills (Calanan, 2004) and emotional intelligence (Prati, Douglas, Ferris, Ammeter & Buckley, 2003) replacing traditional leadership.

There is a growing literature regarding team exercises and training in higher education. The literature reflects practitioner's call for team skills (Alie, Beam & Carey, 1998). There are many subject specific exercises (ex. Bowen, 1998; Dineen, 2005) and exercises in team skills building proposed (ex. Hobson, Strupeck, Griffin, Szostek & Rominger, 2014; Dugal & Eriksen, 2004; Tonn & Milledge, 2002; Clinebell & Stecher, 2003; Clark, Blancero, Luce & Marron, 2001, Benson & Dresdow, 2000; Ettington & Camp, 2002) and a recent emphasis on service and experiential learning (Johnson, 2013; Hagan, 2012). There are also examinations of the

problems with group projects (ex. Holmer, 2001; Mennecke & Bradley, 1998; Pfaff & Huddleston, 2003). However few studies directly address the design of exercises or ways to measure (ex. Hobson, Strupeck, Griffin, Szostek & Rominger, 2014) or increase learning (ex. Galbraith & Webb, 2013; Sashittal, Jassawalla & Markulis, 2011; Bacon, Stewart & Silver, 1999; Bolton, 1999). In this article we suggest an exercise that illustrates and teaches a specific group development model. The explanation of the exercise also provides a model of an exercise modeled specifically around a developmental model, with steps of the exercise paralleling the model directly.

## TUCKMAN'S STAGES OF GROUP DEVELOPMENT

One important aspect of teamwork is the dynamic process by which teams are formed and become functional. The most highly accepted and well known model of this process is Bruce Tuckman's four stage model of small group development (Miller, 2003; Tuckman & Jensen, 1977; Tuckman, 1965). His model has been taught in practitioner seminars and university classrooms for more than three decades. The four stages – forming, storming, norming and performing are shown in table 1 as described in the 2001 reprint of his classic article. The four stages were augmented by a fifth stage – adjourning – when Mary Ann C. Jensen observed that in the decade following the model's first introduction, the literature collectively suggested a final phase be added (Tuckman & Jensen, 1977).

<b>Table 1</b>		
<b>STAGES OF SMALL GROUP DEVELOPMENT</b>		
<b>Stage</b>	<b>Group Structure</b>	<b>Task Activity</b>
	The pattern of interpersonal relationships; the way members act and relate to each other	The content of interaction as related to the task at hand
<b>Forming:</b> orientation, testing, dependence	Testing and dependence	Orientation to the task
<b>Norming:</b> resistance to group influence and task requirements	Intragroup conflict	Emotional Response to task demands
<b>Storming:</b> openness to other group members	Ingroup feeling and cohesiveness develop; new standards evolve and new roles are adopted	Open exchange of relevant interpretations; intimate, personal opinions are expressed
<b>Performing:</b> constructive action	Roles become flexible and functional; structural issues have been resolved; structure can support task performance	Interpersonal structure becomes the tool of task activities; group energy is channeled into the task; solutions can emerge
<b>Adjourning*:</b> disengagement	Anxiety about separation and termination; sadness; feelings toward leader and group members	Self-evaluation

\* A later addition to the model (Tuckman & Jensen, 1977)

This model of small group development is almost always included in management principles, organizational behavior and related textbooks. However a process model of group development should be experienced, not just read and talked about. For that reason we propose using an ‘experiential learning’ approach to learning Tuckman’s model. Experiential learning theory is a holistic model of learning defined as “the process whereby knowledge ... results from the combination of grasping and transforming experience” (Kolb, 1984). It has been shown to improve learning outcomes by providing students with what some scholars call “personalized education” (Waldeck, 2007). Experiential learning is rooted in hands-on practical exercises and experiences and has been shown to be particularly effective in teaching skills needed by the management students (Hobson, Strupeck, Griffin, Szostek & Rominger, 2014; Hoover, Giambatista, Sorenson, & Bommer, 2010; Devasagayam & Taran, 2009; Whetten, 2007). The following is an exercise where students experience the stages of group development

## **TEAM DEVELOPMENT EXERCISE**

### **Materials**

Tennis balls – at least equal to the number of participants, although more is preferable  
Floor space – enough room for a 10-15 foot diameter circle per group of 5-7 students  
Watch – any timepiece that can measure 2 minutes is adequate.

### **Preparation**

Clear floor for exercise  
Form groups of 5-7 participants. Group members should ideally not know each other. It may be necessary to break up those who have worked together, had classes together and so on  
Have groups stand in circles of 10-15 feet in diameter all facing in (facing each other)

### **Round 1**

Give each group a tennis ball  
Instructions: “When I say start, you are to throw the tennis ball to someone else in your group. When you throw the ball, say your own name. There are two rules about throwing. (1) You cannot throw it back to the person who threw it to you. (2) If a person next to you threw it to you, you cannot throw it to the person on your other side\*. Ok, start”  
\*this prevents the ball traveling around the periphery of the circle  
At the end of 2-3 minutes stop the groups.

### **Round 2**

Still using one ball per group  
Instructions: “In this round you are to throw to someone else just like last round. The two rules still apply, (1) you cannot throw it back to the person who threw it to you. (2) If a person next to you threw it to you, you cannot throw it to the person on your other side. However there is one change. This time you must say the name of the person that you are throwing it to. OK, start”  
At the end of 2-3 minutes stop the groups.

### **Round 3**

Instructions: "In this round you no longer need to call out a name. The other two rules still apply. (1) You cannot throw it back to the person who threw it to you. (2) If a person next to you threw it to you, you cannot throw it to the person on your other side. However, there is one difference. (Throw the team another ball) You need to keep two balls in the air. Ok, start."

At the end of 2-3 minutes stop the groups.

### **Round 4**

Instructions: "You guessed it. (Throw each team another ball) Three balls. Ok, start"

At the end of 2-3 minutes stop the groups.

### **Round 5**

Instructions: "Now practice for a while"

Give teams a fourth or even more tennis balls if they seem to have mastered the task.

At the end of 4-5 minutes stop the groups.

### **Round 6**

Instructions: "Now let's clear the floor and let each team show us what they can do" when class scatters to the periphery and one team is in the center "OK, start"

At the end of a few minutes stop the team and move on to the next team.

Continue until each team has a chance.

After each team had a chance, ask "Which team did the best?"

### **Round 7**

Have the 'best team' go back in the center.

Tell them to start, and then increase the number of balls. If possible, have them do the same number balls as members.

### **Debriefing**

Ask the participants to relay their observations. It is best to go through sequentially, asking about Round 1, then Round 2 and so on.

The comments can be written on a board or flipchart.

After some discussion, the facilitator should then present Tuckman's model

Ask participants how their experience maps directly onto the model.

## **DISCUSSION**

By the end of the exercise, participants have experiences all of the stages of group development. During the debriefing they should have identified experiences that correspond to the patterns of interpersonal relationships that correspond to the group structure development and the content of interaction as related to the task at hand. With a minimum of editing and leading the facilitator should be able to provide an amazing experience by eliciting comments that map directly onto the stages of group development.

The preparation, Round 1 and Round 2 correspond to the 'forming' stage. The group gets to know each other and begins to interact. They follow the initial instructions (forming a circle) and then begin to learn the general task. The 'rules' are fairly clear but not everyone in the group will understand them immediately, therefore it is necessary for group members to interact outside of the task to explain the rules. Group members will correct each other as rules are broken (i.e. the ball is tossed back to the person who tossed it to the participant). There may be some disagreement as to the meaning of the rules as stated.

Round 3 and Round 4 are the 'storming' stage. The rules are a little more complex and accomplishing the task becomes more difficult as more balls are introduced. There will be some conflict as participants are proposing different approaches to accomplish the tasks. There will also be frustration when the balls are dropped, participants do not follow proposed strategies and other groups are observed apparently outperforming their group. Rarely has there been excessive anger or arguing at this stage, but groups often have some minor arguing and exhibit impatience and annoyance. Participants also take different roles upon themselves – problem solver, leader, peacemaker, and so on. A discussion of these roles and how they emerged can add additional insight into the process.

By Round 5 the group has entered the 'norming' phase where the methods used are decided and are being fine tuned and the group is developing the skills and abilities that can only occur when the group is in agreement. By then, several patterns have probably evolved and some techniques for throwing and catching have been adopted. Cohesiveness and a team identity emerge, and emotions turn from negative (frustration, annoyance) to positive (accomplishment, fun). The interactions within the group are friendlier and the tone of interactions change.

Round 6 and 7 correspond to 'performing'. By that point, the group has practiced and is competent in performing the task. The task is fun at this point and teams that were once frustrated at the increasing complexity of the game when 2 or 3 balls were introduced, now are challenging themselves and asking for as many balls as they can handle. Frequently groups have succeeded in tossing as many balls as there are group members. It is really impressive to see a group of seven students keeping seven balls in the air.

Adjourning from the exercise is not characterized by the sadness and negative emotions described by the adjourning stage. That is because they will see each other in class many more times, they understand it is a one-off class exercise and it was a fun but trivial task. However they can easily understand that if the process was more extensive, the dissolution of the team could trigger stronger emotions. At this point students relay other experiences where they were separated from a team or group after an extended time (sports teams, schools, etc.). The experience can be finished by giving the participants a questionnaire to evaluate the stages of group development (Mueller, 2012; Miller, 2003).

## **SUMMARY**

In the above exercise, participants discover and experience firsthand the stages of group development. By going through the process and reflecting upon it before the established models (Tuckman, 1965; Tuckman & Jensen, 1977) are presented, the participant has a deeper

understanding and appreciation for the components and dynamics of the model. It is a simple approach, which takes a minimum amount of time, almost no resources (the room and some tennis balls) and is easy to facilitate.

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