

**COURSES THAT UTILIZE STUDENT TEAMS:  
AN APPROACH TO ENHANCING THEIR EFFECTIVENESS**

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**ABSTRACT**

Contemporary strategic dynamics, which would include such tactics as reengineering, employee empowerment, and self-directed work teams have greatly impacted organizational team environmental cultures. While instructors, who utilize student teams in their courses, have always dealt with a variety of team related issues, these new dynamics have made continuous team assessment imperative. Thus, the purpose of this paper is to present the results of many years of developing, modifying, and validating a team assessment questionnaire. Instructors, hopefully, will find this questionnaire a valuable asset in structuring more effective student teams.

**INTRODUCTION**

For years, instructors have been called upon to utilize a variety of means in order to develop student teams in order to enhance their productivity and effectiveness (Zander, 1994; Campion, Medsker, & Higgs, 1993). Instructors are often approached by students who are concerned about the lack of teamwork exhibited by other members on their teams. Student team members are often frustrated over the amount of time they put into activities that may not be related to their grade and the instructor's mandates forcing them to work with individuals with whom they might not prefer to work (Goerge, 1987).

A major problem encountered by instructors is the fact that successful teams are not always easy to build. What makes a team successful is sometimes a mystery (Beck & Yeager, 1996), even to the

student team members themselves (Bolman & Deal, 1992-93). When looking for tools to utilize in working with teams, instructors find themselves faced with a plethora of research on effective teams which include: how team members are recruited (Clark & Wheelwright, 1992), the composition and structure of teams (Griggs & Louw, 1995; Hambrick, 1994), team leadership (Sisco, 1993), and the group's external activities (Ancona & Caldwell, 1992).

In addition to some of the above-mentioned studies dealing with team formation, team demographics, team structure, etc., the instructor is overwhelmed with literature on effective team building. Some studies have found that various types of rewards play a vital role in building effective teams (Geber, 1995; Caudron, 1994; Oswald, Robinson, Swinehart & Thomas, 1991) while another study claims that focusing on skill development needs (Drew, 1994) is the answer. Having teams revolve around processes and not the instructor is a method suggested by Robert Glaser (1994) and even out-of-class activities to enhance and build teams is suggested by Wheal Chris (1994).

Unfortunately, none of the studies offer findings that can be generalized to more than a few specific situations. However, the results of a recent Fortune survey found that top organizational CEOs feel working effectively on teams is the most important skill a potential employee can possess (O'Reilly, 1994). Thus, the demand for instructors to help develop their students into more effective team participants will continue at an ever-increasing level. Therefore, the

need for team-building tools to effectively deal with student teams will continue.

### **CHARACTERISTICS OF EFFECTIVE TEAM BEHAVIOR**

Just as there exists a multiplicity of studies suggesting a variety of factors that make for successful teams, there is an equal number of studies that offer questionnaires which can be employed to assess a variety of team characteristics (Hoevemeyer, 1993; Katzenbach & Smith, 1993; Weiss, 1992). However, many of these are theoretical in nature and may or may not have been extensively replicated for validity.

Because of this, the authors undertook a project that encompassed several years to produce a questionnaire that was designed and tested until it was empirically valid. The questionnaire development process began with an extensive and exhaustive review of the studies conducted concerning characteristics of effective team behavior. This information complemented the authors combined teaching and training experience of over sixty years. The following characteristics of effective team behavior were then determined.

1. Personal goals are congruent with team goals.
2. Ability to express minority opinion without fear of criticism.
3. Deals effectively and openly with both external and internal conflict.
4. Team has a known and agreed upon decision-making process.
5. Team exhibits a high energy level.
6. Team communications are all above board with no hidden agendas.
7. Risk-taking is encouraged.
8. Individuals understand team roles and expectations.
9. Team members have positive feelings about team affiliations.

10. Team members share fundamental work values.

### **QUESTIONS FOR EFFECTIVE TEAM-BUILDING**

After the characteristics of effective team behavior were determined, a variety of questions were composed and administered to a host of individuals ranging from college students to organization managers. Upon debriefing the results of the questions used, feedback regarding ambiguity and pertinence of questions was obtained. In addition, measures of central tendencies, variations, correlations and internal reliability were obtained and used to replace or modify questions.

After many iterations of the question pool, the following questions were selected for the team-building questionnaire. Below are two questions each selected to gather responses regarding each of the ten characteristics labeled A1 through A10. Also, the individual question number is reflected as it appears on the questionnaire. Each set of questions pertaining to a particular effective team behavior were worded to elicit an opposite value of response and were randomly placed throughout the questionnaire along with five neutral questions which were utilized as fillers. This questionnaire development process is suggested to eliminate social response bias (Rosenthal, 1977; Rosnow & Davis, 1977).

#### **Effective Team Behavior Questions**

- A1. Personal goals are congruent with team goals.
2. As I work with my team toward accomplishing team objectives I find I am also accomplishing my own individual objectives.
11. I feel the goals my team strives for interfere with my own personal goals.

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- A2. Ability to express minority opinion without fear of criticism.
3. Even though my thoughts may be totally opposite of those of other team members, I feel very comfortable in expressing them.
15. Individual ideas that are different from those at of the rest of the team should not be brought up for group discussion.
- A3. Deals effectively and openly with both external and internal conflict.
14. Our team dealt with conflict openly and honestly with the intention of being a more effective team.
4. Our team avoided conflict by ignoring it.
- A4. Team has a known and agreed upon decision-making process.
19. The methods by which our team makes its decisions are known by all team members.
5. I had no input into my team's decision-making process.
- A5. Team exhibits a high energy level.
6. Everyone on our team can always be counted on to do more than their share.
21. Some of our team members spend more energy trying to avoid work than they would spend doing the work itself.
- A6. Team communications are all above board with no hidden agendas.
16. Open communications with no hidden agendas are essential to effective teamwork.
25. Many of our team discussions contain hidden agendas with team members making sarcastic remarks to one another.
- A7. Risk-taking is encouraged.
22. Risk-taking is encouraged by team members.
7. Avoiding risks was important to our team's success.
- A8. Individuals understand team roles and expectations
10. Everyone on our team knows what their role is and what is expected of them.
18. Our team could function better if we knew who we were and what we were supposed to do.
- A9. Team members have positive feelings about team affiliations.
8. Team affiliations are positive factors to our team members.
23. If I could do it all over again, I would definitely not join this team.
- A10. Team members share fundamental work values.
12. Our team worked together well because we all shared the same fundamental work values.
24. A common work ethic is not essential for a team to accomplish all of its goals.

### Neutral Statements

1. For a team to be successful, it must rely on the efforts of its personnel working in teams.
9. All teams eventually develop their own personality.
13. Teams that meet together more frequently are usually the better teams.
17. Our team normally meets in the same place.
20. Having team members of all the same age and gender will greatly improve the overall effectiveness of the team.

### VALIDATION OF THE TEAM-BUILDING QUESTIONNAIRE

After two years of extensive testing and modification, the Team-Building Questionnaire (TBQ) was administered over the next two years to a multiplicity of individuals. Results were obtained from over 1000 individuals, which included undergraduate and graduate students,

military and government personnel, and a variety of individuals, ranging from entry level positions to corporate level executives. Responses from this magnitude of individuals should most definitely have produced results that have practical value (Daniel & Terrell, 1979).

The questionnaire utilizes a seven point Likert scale to capture responses. Thus, the scores can range from a low of 20 to a high of 140 discounting the neutral questions. The overall analysis of the data reflects very consistent results. The mean, median and mode of the responses are always very close to a score of 110. The standard deviations average around 14 points with a very small standard error of only 1.5. The ranges averaged around 70 points and the measure of internal consistency was around .80 which is quite sufficient for this type of questionnaire (Nunnally, 1978).

### UTILIZING THE TEAM-BUILDING QUESTIONNAIRE

Convinced that the TBQ was now a valid and practical tool, the authors revisited the data and offer the following interpretation of the scores obtained by anyone utilizing the questionnaire.

Less than 100	Low performing team member
100 to 120	Average performing team member
Greater than 120	Outstanding performing team member

The TBQ can be employed in a variety of situations. The instrument can be used by instructors to help assess their student's readiness to participate in a team-based course, help with team formation, or assess team performance. When using the TBQ as a readiness questionnaire the instructor has the students complete the questionnaire. Then the instructor simply reports

the scores and asks the students how they interpret the information. This generally leads to a discussion about their willingness to move toward a team based class environment. In these discussions, which generally last around an hour, the students may discover they are not as ready to move to teams as they may have originally thought. Very often students decide they either need to learn more about teams or they need to work on developing teams before trying to initiate team development in the classroom. In other words, when used as a readiness questionnaire the students learn a lot about themselves.

If it is apparent the students are ready to accept team development, the class that is about to engage in forming student work teams can assess their work force's propensity toward working in teams (Oswald, Robinson, Swinehart, & Thomas, 1991) by utilizing the TBQ and hopefully avoid team related problems before they have a chance to occur (Buck, 1995). When using the TBQ for developing a new team the instructor should discuss the importance of developing a working psychological contract. After the new team members feel they understand what a "psychological" contract is they are eager to fill out the questionnaire and share their results with each other. It generally takes several sessions before the emerging team has a contract with which everyone feels comfortable. The TBQ helps break the ice quickly and generally establishes the norm of sharing information about assumptions.

As soon as the team building process of establishing teams norms has been accomplished, the process of building the team structure can occur. If the TBQ reveals many high team performers, then self-directed teams can be formed which have a lot of autonomy and can be delegated a great deal of responsibility and accountability. If the normal situation of a variety of high, average, and low performers are found; a combination of high team performers

can be assigned to mentor low and average team performers. The TBQ also provides information for the instructor that can be used to identify those students who might be in need of varying levels of team-building training.

In addition, the TBQ is a tremendous diagnostic tool. Many times the responses to the questions may be symptomatic of factors external to the team, e.g., lack of academic resources, inadequate training, etc., (Holpp & Phillips, 1995; Gordon, 1994). It should be noted that, using the TBQ as a diagnostic instrument is generally the trickiest. "Troubled" teams often want to deny the data or argue about the validity of the instrument. When encountering such "troubled" teams, it is important not to react to the generated hostility, but to simply listen to what is being said and ask for clarification. For example, problems arising from difficulties in completing a major class assignment can easily be assessed by using this "listening" process and appropriate measures taken to rebuild team morale. To be of help to such a team, the instructor needs to be very skilled in both team building and conflict resolution or have access to a colleague that is. Teams who score favorably on the instrument celebrate their scores and average teams either establish goals for themselves or ask for help. Thus, debriefing and processing the results obtained from administering the TBQ may enable the instructor to determine less obvious factors that are having a negative impact on team effectiveness. With this new information, the instructor may redirect his or her attention to dealing with these factors with the

possible results of producing a more effective team (Wright & Brauchle, 1994). Also, the TBQ should be periodically utilized to assess team attitudes to ascertain whether or not any entropy has set in.

### **CONCLUSION**

As was alluded to earlier in this paper, top CEOs consider the ability to be an effective team member the most important ability an employee can possess. However, one person does not a team make. Many factors contribute to an effective team and many factors contribute to those teams that will never be effective. Thus, to be successful in teaching the many aspects of team-building, the instructor must be aware of all of these factors and the many pedagogical techniques that can be utilized to build effective student teams. In addition, where team based courses are utilized, there is a constant need to monitor the effectiveness of the teams given ever-changing classroom conditions. To accomplish this, constant assessment of the student teams and their progress through the class term is vital for the course to be successful. It is hoped that the development of the TBQ will enhance instructors' ability to be more valuable to their students in the many courses that involve student teams.

### **REFERENCES**

References available upon request.