ASSESSMENT GONE WILD: PRACTICE WHAT YOU TEACH

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ABSTRACT

Assessment of learning has become very important for government, universities and accrediting agencies. In this article, two variables are examined, leadership and teamwork, in the context of a survey used by one mid-south university for assessment purposes. This survey demonstrates the problems that arise when the sequential steps of the research design process are not followed. I also offer suggestions on how to avoid mistakes during the design process for assessment of learning.

INTRODUCTION

Universities today are increasingly accountable to many stakeholders. The government, accrediting agencies, and parents expect assurance that students are learning what they need in college to be successful in the workforce (Liu, 2011). Assessment of learning in higher education provides information to help universities focus in on problems such as teaching quality and student learning outcomes (Fletcher, et. al., (2012). Assessment also provides information to outside organizations on specific areas of interest. Suppose companies require good written communication skills. Students graduating with this skill will be available to fill the employment needs of the organization. Sponsoring companies benefit through available labor, universities benefit by placing more graduates in jobs, and students benefit because they learn the skills necessary to be successful on the job. Two important skills organizations request of MBA graduates is leadership and teamwork.

As student learning outcomes become even more important in the future, we will see more committees assigned the task of measurement design to assess skills such as teamwork and leadership. Rather than going to experts, this goal may be given to committees of appointed members with little or no knowledge of the variables to be measured. Additionally, they may be uncomfortable setting standards and/or analyzing data. With intensified teaching, service and publication demands, assessment is sometimes seen as a project to be conducted for the sake of accreditation. The result is the measurement of the wrong variables and the collection of useless data.

The purpose of this paper is twofold. First, two variables are examined, leadership and teamwork, in the context of a survey used by one mid-south university for assessment purposes. This survey demonstrates the problems that arise when research designers do not follow the proper methodology. Years of collecting data can all be for naught. Second, I will offer suggestions on ways to avoid this situation, hopefully helping faculty with techniques to improve their own assessment techniques.

RESEARCH DESIGN

The seven steps identified in the research design process are as follows:

1. Identify the research problem
2. Conduct a review of the research
3. Specify the purpose of the research
4. Determine the problem and develop the hypothesis
5. Data collection
6. Analyzing and interpreting the data
7. Reporting and evaluating the results.

The first step of the research design process is to identify the problem. The question in our case was "do our MBA students graduate with leadership and teamwork skills"? A committee was appointed by the college dean. Of the faculty serving on the committee, only one person was teaching management, a junior faculty with a degree in production.

While putting so much stress on a junior faculty was unfair, it was also unwise. Although working hard to complete his task in a timely manner, minimal research was conducted on the theoretical basis for the items. To demonstrate the lack of face validity, a brief literature review of leadership and teamwork follows.

Leadership

Being able to influence others to perform is the key to leadership. Two major types of leaders are discussed in management literature, transaction and transformational. According to the lead researchers on this topic, transformational leadership processes may align followers' work-oriented values with those of the greater group or organization (Bass et. al., 1987; Burns, 1978; Conger & Kanungo, 1988). Transactional leaders perform more often in the background of the company. They are concerned with day-to-day operations and maintaining status quo. They use legitimate, coercive, and reward power more than other types. Transformational leaders are at the center of the organization, mostly leading through expert and reference power. They look forward to the future of the organization and develop a vision that others also follow. Transformational leaders possess charisma and are able to simply be supportive rather than directive when the situation allows (Hersey & Blanchard, 1984). There is a religious-like motivation that the leader is able to instill in the employees, whereas, the transactional leader appeals to employees' self-interests rather than raise the levels of morality and motivation (Burns 1978).

Leadership studies often focus on a top ranking corporate officer. One will find leaders in all areas and positions. They may be formal leaders, such as those appointed by the organization. But they can also be found in informal settings, such as friendship or interest groups. Leadership qualities can trickle down through layers of the hierarchy. In fact, the relationship between the leadership style of the person in charge and the operating employees may be irrelevant. It may be the immediate supervisor's leadership behavior that influences success rather than the person in charge of the project (Bass and Avolio, 1994).

One example of a pre-existing scale that might be used in place of developing a scale is the Peer Leadership scale developed by Taylor and Bowers in 1972 (Cook, Hepforth, Wall, & Warr, 1981). This instrument has been cited and validated repeatedly in leadership literature. It consists of an 11 item scale rated on a continuum scale from 1 to 5. The dimensions of the scale are support, goal emphasis, work facilitation, and interaction facilitation. The next section of this paper examines the second dimension of interest, teamwork.

Teamwork

The definition of teams originated in the 1980's. While the terms "work team" and "work group" are sometimes used interchangeably (Hackman, 1990), especially theoretically, they are very different variables (Katzenbach & Smith, 1993). A team has a purpose outside itself. Members gain their identities from the purpose of the team and their commitment to the goal, while they are also accountable for the task (Rowland, 1989). A group, in contrast, serves a common purpose usually relating to wider society. The National Association of Professional Women (NAPW) is a group. Their mission is to promote awareness, networking, and career building for women. However, they do not all share the same goal outside of the group's activities. One may be a member for the social benefit, while another may join to find business opportunities. Group members are not accountable for the success of NAPW in a way that team members are accountable for the service or product they produce. Thus, group members show less commitment to the goal than team members (Rowland, 1989).

In 1993, Katzenbach and Smith published an article in *Harvard Business Review* in which they described the difference between groups and teams (See Table 1).

Table 1
Group vs. Team Characteristics

Group	Team
Strong leader	Shared leadership
Individual accountability	Mutual accountability
Same purpose as organization	Team defines specific team purpose
Individual work products	Collective work products
Meeting efficiency	Open-ended discussion and problem-solving
Measures effectiveness indirectly	Measures effectiveness directly by results
Discusses, decides, delegates	Discusses, decides, and does real work together

Assessment Instrument

I recently served on a sub-committee for an assurance of learning committee. My task was to analyze data that had been collected from seniors in a graduate MBA class. The analysis intent was to prove graduates' success with team and leadership skills. Immediately upon examination of the survey items, I began to doubt the validity of the instrument. After three years of collecting data, the surveys being analyzed held no face validity (See appendix for items). The variables and outcomes of the analysis are further explored in the next section of this article.

ANALYSIS

To assess leadership and teamwork, we surveyed students from senior graduate classes from 2009 through 2011. (See Appendix for Survey Items). The instrument was presented to students at the end of the semester, after participation in four to five member teams during one semester. Each student was asked to rate themselves and each member of their team with regards to: attendance and participation in meetings, the quality and quantity of members' work, the professionalism of members, and the resilience, or positive attitude, to the project demonstrated by members. See Table 2 for the descriptive statistics of the data. The range of all items is from one to three with the exception of Quantity. No student reported lower than two for this question. All averages are above 2.75 on a scale of one to three. Reliability was estimated using Cronbach's alpha at .73.

Table 2
Descriptive Statistics

	Min.	Max.	Mean	Std. Deviation
Attendance	1.00	3.00	2.8924	.32478
Quality	2.00	3.00	2.9058	.29272
Quantity	1.00	3.00	2.6547	.52166
Resilience	1.00	3.00	2.8700	.35022
Professionalism	1.00	3.00	2.9417	.25329

The percentage response for each participant is as follows. The scores above an average of 2.7 made up the majority of responses at 82.1 %. The second group at 2.6 made up 10.3%, while only 3.1% scored their team members at 2.40. Data collection resulted in 223 usable responses. To analyze the data we used SPSS 20.

Two items were used in our study to measure leadership. The first item was named resilience and asked about cooperation and remaining positive during disagreements. The second item was called professionalism and asked about the respect for members of the team. Neither of these items asked about influence. There was no face validity that these questions measured leadership skills in our students.

The items used to measure teamwork in our study are attendance and punctuality, work quality, and work quantity. According to Table 1, these items are related to efficiency and individual accountability. Hence they measure group work, not team work. Our survey lacked face validity and required a deeper probe into whether the results were really valid.

We conducted a preliminary examination of the teamwork-leadership scale. Factor analysis revealed that all factors loaded into one factor within an acceptable range, indicating one variable, instead of two (Table 3, 4 and 5). But this did not tell us which variable was being measured.

Table 3
Communalities

	Initial	Extraction
Attendance	1.000	.559
Quality	1.000	.492
Quantity	1.000	.486
Resilience	1.000	.434
Professionalism	1.000	.596
Extraction Method: Principal Component Analysis.		

Correlations for all scale items are in Table 6. As evidenced below, all items correlate significantly with each other in congruence with the factor analysis.

Table 4
Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.567	51.339	51.339	2.567	51.339	51.339
2	.756	15.129	66.468			
3	.708	14.152	80.620			
4	.550	10.999	91.619			
5	.419	8.381	100.000			
Extraction Method: Principal Component Analysis.						

Table 5
Component Matrix[a]

	Component
	1
Attendance	.748
Quality	.702
Quantity	.697
Resilience	.659
Professionalism	.772
Principal Component Analysis.	
a. 1 components extracted.	

CONCLUSION

When conducting in-house research it is important to follow the sequential steps of the correct methodology. Professors follow the steps in writing their dissertations or thesis. When teaching research methodology, professors deduct points when students skip steps or do not follow the sequential steps. When conducting and publishing research, professors are held to very high ethical standards of reporting: thus they follow the proper steps. Then why is it that committees developing measures of learning outcomes do not always practice what they teach?

The survey investigated herein did little to measure either leadership or teamwork. Three years of collecting data were wasted because the committee did not approach this task with the same perseverance of a personal research project. Perhaps faculty perceives assessment as just an added task to be completed as quickly as possible. However, by not following the proper design methodology, the results and evaluations are meaningless. By seeing our mistakes, faculty may be able to avoid them at their schools. Following is a list of suggestions to improve the process of assessing leadership and teamwork.

Suggestion 1: Contact experts to identify the variables. It is also important to place experts on the committee. Experts were not contacted regarding the variables being studied herein.

Suggestion 2: Conduct a thorough review of the literature to identify any existing scales. Using an existing scale that has been validated can reduce the time and cost of in-house development. There was little review of the literature in developing questions for the survey.

Table 6
Correlations

		Attendance	Quality	Quantity	Resilience	Professionalism
Attendance	Pearson Correlation	1	.319**	.444**	.352**	.526**
	Sig. (2-tailed)		.000	.000	.000	.000
Quality	Pearson Correlation	.319**	1	.435**	.363**	.412**
	Sig. (2-tailed)	.000		.000	.000	.000
Quantity	Pearson Correlation	.444**	.435**	1	.271**	.358**
	Sig. (2-tailed)	.000	.000		.000	.000
Resilience	Pearson Correlation	.352**	.363**	.271**	1	.422**
	Sig. (2-tailed)	.000	.000	.000		.000
Professionalism	Pearson Correlation	.526**	.412**	.358**	.422**	1
	Sig. (2-tailed)	.000	.000	.000	.000	

**. Correlation is significant at the 0.01 level (2-tailed).

Suggestion 3: Keep the high ethical standards used in published research. The purpose of this research was to satisfy accreditation standards, not to investigate a real-life problem. Because the results were not to be published, standard research standards were not applied.

Suggestion 4. Develop the hypothesis based on the literature review and the experts involved in the process. There was no hypothesis, so it was difficult to know what we were looking for.

Suggestion 5: Conduct a pilot study before disseminating to students. No pilot study was conducted. Data was collected with an improper survey for three years.

Considering the statistical results of the analysis, the measurement tool designed to assess whether graduating MBA students were leaders and worked well in teams is not a valid instrument. The recommendation for the graduate committee was to develop a different scale for the leadership and teamwork constructs. The work of three years of meetings and collecting data were a waste of the faculties' time and energy. By examining the mistakes made by our committee, we hope to help others avoid the same problems.

One question that should be pursued is why the students are rating each other so high. Is it because in graduate school all students are more invested in their education? Are they really this good? Another proposal might be the question of their generosity when rating. Are they more forgiving than undergraduates? Since many of our MBAs are already working, they may have experienced social loafing in the workplace and already be conditioned to accept this as a reality. Therefore, their expectations may be lower. Another problem with this analysis is the lack of a social desirability scale to determine if they are rating the way they think is socially acceptable or are they just giving everyone the highest score across the board.

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APPENDIX

Teamwork & Leadership Evaluation Form

TEAMWORK: Attendance and Punctuality

3. Attended all meetings; never arrived late nor left early
2. Attended almost all meetings; arrived late or left early sometimes
1. Attended a few or no meetings; often arrived late or left early

TEAMWORK: Work Quality

3. Brought good or exceptional ideas to make the team project better
2. Brought some ideas that can be used for the team project
1. Brought ideas that do not help the team project

TEAMWORK: Work Quantity

3. Performed more work than most team members
2. Performed the same amount of work as most team members
1. Performed less work than most team members

LEADERSHIP: Resilience

3. Was very positive and productive when having disagreements or discussing changes
2. Was positive and productive when having disagreements or discussing changes
1. Was negative and less productive when having disagreements or discussing changes

LEADERSHIP: Professionalism

3. Listened and respected other team members' ideas
2. Listened and attempted to understand other team members' ideas
1. Was not willing to listen or to understand other team members' ideas