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Relating Perceptions of Teaching Method Effectiveness to Perceived Instructional Emphasis Areas: A Comparison of Faculty and Students

Stuart Van Auken
Florida Gulf Coast University, Ft. Myers, FL 33965
Eileen Anne Campbell
North Dakota State University, Fargo, ND 58102
Ludmilla Gricenko Wells [1]
Florida Gulf Coast University, Ft. Myers, FL 33965

Abstract

This study associates the perceived effectiveness of alternative teaching methods with perceived instructional emphasis areas for each of two groups: faculty and students. It seeks to determine the congruency between faculty and student response. The results evidence a commonality between faculty and student perceptions as to the effectiveness of the following teaching methods when related to instructional emphasis areas: group projects, cases, and in-class presentations. However, students when contrasted to faculty denote greater associations with instructional emphasis areas for in-class discussions and in-class exercises, as well as individual projects and computer simulations. Reasons for the discrepancies are developed, as well as the usefulness of the associations in selecting pedagogical approaches and encouraging pedagogical innovation.

Keywords: Teaching methods, instructional emphases, associations, and pedagogical innovation.

Perceptions of the effectiveness of alternative teaching methods from either a faculty and/or a student perspective may be related to perceptions of various instructional emphasis areas. Thus, the teaching methods that are statistically associated with given emphasis areas may be determined. Teaching methods can then be assessed comparatively as to their contextual prowess and/or a given instructional emphasis area can be singled out to reveal the teaching methods that are most associated with it. This approach can serve as a normative base as to what should work for a given instructional emphasis area and faculty contemplating teaching method alternatives can achieve deeper insights. It is applicable for any campus major with variations in teaching methods and instructional emphasis areas.

The use of such an approach negates trying to appease certain student types through the development of an overall modality, or as Chonko (2007) notes, one's responding to how

[1] Corresponding author's email: lwells@fgcu.edu

"this year's students want to learn." Basically an array of factors exist that are beyond the control of the instructor and as Chonko (2007) states, how can an instructor accommodate different student cognitive abilities, student preference for pedagogical styles, socioeconomic status, and personality traits in a single modality? It would thus seem that having students assess the perceived effectiveness of each of a number of teaching methods and then relating them to student perceptions of instructional emphasis areas would yield cogent insights and potentially enhance learning outcomes. With regard to the latter, it has long been held that matching student preference with teaching method approaches serves to facilitate student learning (Glazer, Steckel, & Winer, 1987; Gregore, 1979; Okebukola, 1986). In this study setting, the match is based on the covariation between perceived teaching method effectiveness and instructional emphasis areas, thus contextualizing teaching method efficacy. Basically, instructional emphasis areas can be so varied even within a course that alternative pedagogies have to be considered.

To date, much has been made about learning styles and the importance of using teaching methods that support them (Davis, Misra, & Van Auken, 2000; Galvan, 2006; Goodwin, 1996; Karns, 1993; Matthews, 1994; Nulty & Barrett, 1996; Stewart & Felicetti, 1992), yet only one work (Van Auken, Chrysler, & Wells, 2006) has revealed the effectiveness of teaching approaches that were associated with instructional emphasis areas. This work, which was based on MBA alumni, found that group projects and in-class exercises were associated with skill development and that individual student projects were associated with the development of knowledge-based capabilities and understandings. An outgrowth of this research is the need to develop insights into faculty perceptions of the associations and to contrast them with student associations. It is this focus that this study embraces. Additionally, a key research question is whether faculty and students perceive teaching method effectiveness the same way and whether instructional emphasis areas are perceived with the same commonality? And even of greater importance, are the statistical associations between teaching methods and emphasis areas the same when contrasts between faculty and students are conducted? Still, it may be conjectured that student associations will reflect the normative, or the "way things should be," while faculty associations will reveal the descriptive, or the "way things actually are." This is because students do not perceive teaching constraints the same way as faculty.

The Study Approach

Faculty

The study proceeds by conducting a census of faculty at an AACSB-I accredited business school located in the southeastern portion of the United States. The survey was administered at a mandatory attendance faculty retreat and encompasses thirty-six full-time faculty members. The measurement instrument involved two focal parts with the first asking respondents to indicate the extent of emphasis that was individually given to each of eleven instructional areas. In this case, seven-point scales were used with the number one position denoting a Very Low Emphasis and the number seven scale position indicating a Very High Emphasis. The eleven areas contained such variables as technical preparation,

ability to identify a business problem, quantitative skills, and the development of an understanding of the functional areas of business.
The second focal area encompassed having faculty rate the effectiveness of each of nine teaching methods in their teaching assignments. In this case, seven-point scales were used with the number one scale position being coded Extremely Ineffective and the seven scale position denoting Extremely Effective. Respondents could also indicate those teaching methods that they did not use. Overall, these teaching methods included such areas as case studies, group projects, individual projects, and exams.

Students

The student survey employed a sample of seventy-nine seniors who were taking the capstone course in Business Policy. These students were given an instrument that asked them to indicate the emphasis that their business instructors actually gave to each of the eleven instructional emphasis areas. The emphasis areas were identical to those used by faculty and utilized the same coding scheme.

Next, students were asked to rate the effectiveness of each of nine teaching methods in their respective business courses. Again, the same teaching methods administered to faculty and the same scoring schemes were employed. As in the faculty survey, students could indicate those teaching methods to which they had not been exposed. Such teaching methods were coded as blanks in assessments of perceived effectiveness.

Study Results

Instructional Emphasis Areas

With the development of data sets comprising both faculty and students, mean comparisons were initially made between the two groups as to instructional emphasis areas. The results, utilizing an unequal variance assumption, are presented in Table 1.

As can be seen, there is no difference in instructional emphasis areas, thus providing face validity to the study results. Basically, what faculty perceive as their emphasis is matched by student perceptions of instructional area exposure.

Teaching Methods

The same analysis was also employed on perceived teaching method effectiveness between the two groups. The results are presented in Table 2.

They reveal only one statistically significant difference between faculty and students and this encompassed group projects. In this regard, faculty perceive a higher effectiveness for group projects than students ($p = .03$). Outside of the perceived effectiveness of group projects, the study results again suggest a face validation as to the way that faculty and students perceive teaching method efficacy.

TABLE 1. Mean Contrast between Faculty and Students as to Instructional Emphasis Areas

Variables	Mean Scores[1] Faculty	Students	t values	Significance[2]
1. Technical preparation (ability to use software such as spreadsheets, statistical packages, database packages, etc.)	3.78 (1.91)	4.35 (1.41)	-1.62	.11
2. Ability to identify a business problem	5.28 (1.60)	5.27 (0.92)	0.04	.97
3. Ability to analyze the relationship between business variables	5.60 (1.36)	5.16 (0.94)	1.73	.09
4. Ability to develop workable solutions to business problems	5.47 (1.59)	5.39 (1.04)	0.28	.79
5. Ability to work effectively on a team	5.63 (1.35)	6.03 (1.03)	-1.55	.13
6. Oral/presentation skills	5.31 (1.74)	5.58 (1.19)	-0.87	.39
7. Written communication skills	5.08 (1.56)	5.53 (0.96)	-1.57	.12
8. Quantitative skills (ability to work with numerical data)	5.31 (1.58)	5.29 (1.18)	0.05	.96
9. Ability to communicate effectively using the language of business	5.64 (1.57)	5.37 (1.11)	0.94	.35
10. Understanding of the functional areas of business	5.46 (1.58)	5.51 (0.98)	-0.19	.85
11. Understanding how the functional areas of business relate to each other	5.37 (1.63)	5.39 (0.98)	-0.07	.94

[1] standard deviations are in parentheses.
[2] degrees of freedom equal 113.

Faculty Associations

In an effort to relate the perceived effectiveness of teaching methods to instructional emphasis areas, a Pearson product-moment correlation was employed. The results appear in Table 3. As can be observed, the highest correlations are seen between group projects and

TABLE 2. Mean Contrast between Faculty and Students as to Perceived Teaching Method Effectiveness

Variables	Mean Scores[1] Faculty	Students	t values	Significance[2]
1. Case Studies	5.68 (1.63)	5.38 (1.21)	1.01	.32
2. Lectures	5.47 (1.42)	5.04 (1.08)	1.63	.11
3. Computer Simulation	4.55 (1.77)	5.22 (1.26)	-1.65	.11
4. In-class discussions	5.83 (1.03)	5.76 (0.87)	0.38	.71
5. Group projects	5.97 (1.16)	5.41 (1.15)	2.27	.03
6. In-class exercises	5.75 (1.30)	5.59 (1.05)	0.70	.48
7. Individual projects	5.62 (1.45)	5.37 (1.18)	0.93	.35
8. In-class presentations	5.70 (1.32)	5.38 (1.23)	1.19	.24
9. Exams	5.60 (1.40)	5.20 (1.29)	1.48	.14

[1] standard deviations are in parentheses
[2] degrees of freedom equal 113.

the various instructional emphasis areas. Basically, group projects are highly associated with developing an understanding of how the functional areas of business relate to each other (*r = .68*) and the development of an understanding of the functional areas of business (*r = .58*). Group projects are also associated with the development of oral/ presentation skills (*r = .59*) and the ability to identify a business problem (*r = .55*).

Other teaching methods that are associated with instructional emphasis areas are case studies and in-class presentations, with case studies demonstrating an efficacy similar to

group projects as to instructional emphasis areas. Noteworthy, is the relative lack of significant associations for individual projects, exams, in-class discussions, computer simulations, and lectures with the various instructional emphasis areas. Overall, group projects, case studies, and in-class presentations dominate the relationships between perceived teaching method effectiveness and the delineated instructional emphasis areas.

TABLE 3. Faculty Correlations Between Teaching Method Effectiveness and Instructional Area Emphasis

	12. Case Studies	13. Lectures	14. Computer Simulation	15. In-Class Discussions	16. Group Projects	17. In-Class Exercises	18. Individual Projects	19. In-Class Presentations	20. Exams
1. Technical preparation (ability to use software such as spreadsheets, statistical packages, database packages, etc.)	-.03	-.38*	.19	-.32	-.20	-.23	-.19	-.40*	-.05
2. Ability to identify a business problem	.52**	.04	-.45*	-.04	.55**	-.05	-.13	-.02	-.08
3. Ability to analyze the relationship between business variables	.31	.66**	-.35	.11	.12	-.12	-.28	.41*	.34
4. Ability to develop workable solutions to business problems	.71**	.11	-.17	-.02	.49**	.14	-.29	.32	-.11
5. Ability to work effectively on a team	.07	-.21	-.06	.05	.44*	.16	.28	.11	-.33
6. Oral/presentation skills	.44**	.03	-.22	.14	.59**	-.09	.18	.61**	-.31
7. Written communication skills	.34	.05	.08	.30	.40*	-.17	.01	.49**	-.14
8. Quantitative skills (ability to work with numerical data)	.19	.26	-.31	.05	.06	-.10	-.03	.24	.16
9. Ability to communicate effectively using the language of business	.40*	.16	-.29	.16	.47**	.33*	.25	.28	-.10
10. Understanding of the functional areas of business	.57**	.15	-.37	.17	.58**	.30	.28	.49**	.01
11. Understanding how the functional areas of business relate to each other	.57**	.40*	-.10	.33	.68**	.07	.04	.54**	.19

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

Student Associations

The same correlation analysis on the student side is presented in Table 4.

As can be seen, the results are startling when contrasted to the observed faculty relationships as they reflect more of an ideal. In the case of students, only two teaching methods are perceived as not readily relating to the identified instructional emphasis areas and they encompass exams and lectures. Basically, teaching methods that engage students bear the strongest relationships to instructional emphases with group projects, in-class discussions, cases, and individual projects, as well as in-class presentations taking the lead. Students thus reveal an efficacy for in-class work in two areas (discussions and exercises), as well as individual projects and even computer simulations that are not seen in faculty associations.

TABLE 4. Student Correlations Between Teaching Method Effectiveness and Instructional Area Emphasis

	12. Case Studies	13. Lectures	14. Computer Simulation	15. In-Class Discussions	16. Group Projects	17. In-Class Exercises	18. Individual Projects	19. In-Class Presentations	20. Exams
1.-Technical preparation (ability to use software such as spread sheets, statistical packages, database packages, etc.)	.11	.14	-.16	-.01	.16	.10	-.06	-.08	.09
2. Ability to identify a business problem	.37**	.25*	.28*	.29**	.36**	.11	.35**	.34**	.25*
3. Ability to analyze the relationship between business variables	.46**	.06	.27*	.44**	.41**	.30**	.23*	.30**	.10
4. Ability to develop workable solutions to business problems	.37**	.21	.35**	.38**	.39**	.36**	.33**	.31**	.22
5. Ability to work effectively on a team	.34**	.06	.26	.24*	.51**	30**	.06	.28*	-.03
6. Oral/presentation skills	.17	.04	.35**	.26*	.51**	.44**	.25*	.21	.03
7. Written communication skills	.22	.23*	.22	.30**	.33**	.38**	.43**	.40**	.27*
8. Quantitative skills (ability to work with numerical data)	.25*	.30**	-.10	.27*	.18	.25	.29**	.14	.07
9. Ability to communicate effectively using the language of business	.52**	.13	.27*	. 29**	.43**	.22	.30**	.35**	.10
10. Understanding of the functional areas of business	.43**	.26*	.29*	.36**	.40**	.21	.35**	.31**	.27*
11. Understanding how the functional areas of business relate to each other	.39**	.16	.32*	.42**	.42**	.23*	.14	.19	.12

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

Discussion

A contrasting of faculty and student associations between perceived teaching method efficacy and perceptions of instructional area emphasis has revealed unique differences. Basically, students perceive a utility for in-class discussions and in-class exercises not revealed in faculty associations. Perhaps, the time involvements and/or class size issues have served to influence faculty results. Additionally, the time encroachments associated with individual project grading could be a major factor in influencing faculty results and may positively influence the viability of group projects among faculty. Alternatively, the student associations portray more of an ideal or normative emphasis, as they indicate the teaching approaches that students would like to have associated with the various instructional emphasis areas.

It is clear that faculty and students are together on the efficacy of group projects as well as case studies and in-class presentations. There is also a limited support for exams and lectures among both faculty and students. On balance, active engagement is perceived as contributing to teaching method effectiveness among students and this knowledge may influence pedagogical design in various instructional emphasis areas. In other words, can preferred teaching approaches be applied in instructional areas that commonly do not accommodate them?

Although the mean score comparisons between faculty and students showed more faculty support for group projects as to teaching method efficacy, the revealed associations among students denote its promise. Perhaps more effective group project management by faculty would create more of a perception of parity between faculty and students as to group project efficacy. Chapman and Van Auken (2001) provide insights into group project management that may contribute to this end

Study Limitations and Future Research Directions

The study is restricted to a AACSB-I accredited business school located in the southeastern portion of the United States. Outside of fundamental skill building, the instructional emphasis areas are somewhat unique to business. Additionally, there are teaching methods employed in business education that are somewhat idiosyncratic (e.g., simulations and case studies). Thus, generalizing the results to other disciplines may be problematic and the results may be unique to the institution in question. Still, the conceptual development of the approach is universally applicable. What is necessary is the confirmation of our results in diverse settings. That is, the revelation of results which indicate a more normative emphasis among students, while faculty results evidence the descriptive. If confirmed, such studies will reveal much about student expectations. Studies can also be made at different levels (e.g., after the completion of junior level courses), as within-major instruction may evidence a greater usage of diverse pedagogical approaches. Studies can also compare unique disciplines within a program. In essence, there is an opportunity to further study student versus faculty expectations.

Conclusions

The study has shown the viability of student perceptions of teaching method effectiveness when associated with perceived instructional emphasis areas. The approach thus relates the efficacy of teaching methods to an instructional framework, versus viewing teaching method approaches in a vacuum, and essentially results in ideal norms. Faculty perceptions of teaching method effectiveness when related to the faculty members' instructional emphases were somewhat similar to students, yet lacked some of the active engagement revealed by students (e.g., in-class discussions and individual projects). This may be due to class size constraints and/or a desire to lessen onerous grading tasks. Chapman and Van Auken (2001) note that faculty favoritism toward group projects may be due to the latter and not due to their inherent learning benefits. Clearly, the demands upon faculty are such that work simplification may be embraced to allow for greater research productivity and other issues not related to teaching. Regardless, our student results serve as a reminder of the efficacy of active student engagement through in-class discussions and in-class exercises, as well as individual projects. Overall, contrasts of associations between faculty and students can be revealing and may influence the selection of pedagogical approaches, as well as encourage innovational pedagogies; especially in areas that may seem nonamenable to preferred teaching approaches.

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