An Exploratory Study of Student Perception of Instructor Traits in Effective Learning

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Abstract Effective learning is an outcome of effective teaching. Effective teaching, in turn, requires effective instructors. This study addresses relevant issues related to effective learning by comparing student perceptions of instructor characteristics in a b-school. It is based on the conceptual premise that effective college learning depends more on personality characteristics which students perceive to be relevant in the teaching/learning environment. Even though an instructor may be an expert in his field and very rich academically, it is the manner in which he transfers information and knowledge to the students that matters the most. The results of the factor analysis applied in the study indicate that the six most vital factors for learning effectiveness are: style of managing class, evaluation of student performance, facilitation, teaching style, communication skills and attitude.

Keywords Instructor Characteristics, Students’ Perceptions, Effective Learning

1. Introduction

Effective instruction is an important constituent of the process of education. Comprehending student perceptions of an effective instructor has traditionally been a vital consideration. However, with the introduction of technology in education, online teaching and an increase in exchange programs among universities all over the world, it becomes imperative to understand what characteristics make an effective instructor from student perspectives. Therefore, instructors should be aware of student expectations.

This study addresses relevant issues related to effective learning by comparing student perceptions of instructor characteristics in a b-school. It is based on the conceptual premise that effective college learning depends more on personality characteristics which students perceive to be relevant in the teaching/learning environment. It can be stated that an instructor’s skill in organizing and managing his course requirements is an essential but not adequate condition for achieving efficiency in the classroom. It is the personal characteristics which the instructor as an individual brings to the educational setting that bring out the difference between success and failure as an instructor, at least according to the student judgments.

2. Literature Review

Students and professors work together in divergent educational environments that disagree in any number of ways, including instructional approaches and equipment and facility resources. However, student perceptions regarding their educational experiences exist. According to Doyle (1977), in the research efforts on teacher effectiveness several impediments related to such things as uniformity of outcomes, methodology, and theoretical reflections are involved. After a long gap, Tuckman (1995) observed that there was an absence of consensus about definitions of effective teaching and absence of agreement over how to quantify it.

Bousfield (1940), Duncan and Leach (1934), and Kilcoyne (1949) conducted research that involved student ratings of instruction. Further, Voeks and French (1960) wanted to learn if there were variations between student ratings and grades received. Quick and Wolfe (1965) studied the responses of students responses in order to find out factors that depicted perfect college professors. It was Cashin (1996), who noted that research on student evaluation of instruction progressed substantially from the beginning of 1970s.

After an analysis of the responses given by business students at a regional state university, Tang (1997) brought out several factors like clarity of presentations, ability to answer questions, courteous/professional treatment of students, and preparation for class as predictors of teaching effectiveness. Faranda and Clarke (2004) made the use of interviews to determine the views of business students of attributes displayed by successful professors, which incorporated building an affinity, creating an engaging learning environment, being well-informed and fair.
3. Methodology

For the purpose of the study, primary data was collected from students of a private business school using a questionnaire. A sample of 250 students was selected through non-probabilistic convenience sampling, as it is suitable for studies that are exploratory in nature. Convenience sampling method basically serves two-fold purpose: firstly respondents are selected because they are in the right place at the right time and secondly, convenience sampling technique is not recommended for descriptive or casual research but they can be used in exploratory research for generating ideas (Malhotra, 2005). The survey asked for information about perceptions of importance for instructor characteristics. The structure for the questionnaire and numerous items were adopted from a study by Moorman (2004). Participants responded to statements using a 5-point Likert scale, which ranged from not important (1) to very important (5).

4. Data Analysis & Findings

According to the chosen methodological research approach, statistical package SPSS version 15 was used. Factor analysis has been employed particularly for the statistical analysis.

Factor analysis is a data reduction statistical technique that allows simplifying the correlation relationships between numbers of variables. Various steps were performed to identify the important factors of Student perception of Key Instructor Characteristics in Effective Learning.

Step 1:

The correlation matrices were computed, which revealed that there is enough correlation to go ahead for factor analysis.

Step 2:

To test the sampling adequacy, Kaiser-Meyer-Olkin Measure of Sampling Adequacy (MSA) was computed and found to be 0.805 significant at .01 level. It indicates that sample is good enough for sampling (Table 1).

Table 1. Results of Sampling Adequacy Test and Validity of Factor Analysis Data

| Kaiser-Meyer-Olkin Measure of Sampling Adequacy | .805 |
|-----------------------------------------------|-----|
| Bartlett's Test of Sphericity |
| Approx. Chi-Square | 1164.814 |
| df | 300 |
| Sig. | .000 |

Step 3:

The overall significance of correlation matrices was tested with the Bartlett Test of Sphericity providing enough support for the validity of the factor analysis of the data set (Table 1). Factor analysis was initiated as a data reduction statistical technique, using SPSS to reduce the variables into smaller number of manageable variables by exploring common dimensions available among the variables and eliminating or suppressing the variables which do not have any significant contribution. After the standards indicated that the data are suitable for factor analysis, Principal Components Analysis...
was employed for extracting the data, which allowed determining the factor underlying the relationship between a numbers of variables. The factor analysis was performed on the 30 items.

Loadings on factors can be positive or negative. A negative loading indicates that this variable has an inverse relationship with the rest of the factors. The higher the loading, the more important is the factor. All the loadings in this research are positive (Table 2).

Rotation is necessary when extraction technique suggests that there are two or more factors. The rotation of factors is designed to give an idea of how the factors initially extracted differ from each other and to provide a clear picture of which item loads on which factor (Table 2).

There are only nine factors, each having Eigen value exceeding 1 for learning effectiveness (Table 3). The Eigen values for the nine factors are 5.990, 2.188, 1.573, 1.390, 1.303, 1.160, 1.128, 1.066, and 1.008 respectively. The percentage of the total variance is used as an index to determine how well the total factor solution accounts for what the variables together represent. The index for the present solution accounts for 67.23 percent of the total variations for learning effectiveness. It is pretty good extraction as it can economize on the number of factors (from twenty five factors to nine factors). The percentage of variance explained by factor one to nine in learning effectiveness are 23.962, 8.752, 6.295, 5.559, 5.211, 4.641, 4.511, 4.264, 4.030 respectively.

After nine factors are extracted and retained, the communality is .629 for variable 1, .708 for variable 3 and so on (Table 4). It means that 63 percent of the variance of variable 1 is captured by the nine extracted factors together. The proportion of variance in any one of the original variables, which is being captured by the factor, is known as communality (Nargundkar 2002). Large communalities indicate that a large number of variance has been accounted for by the factor solution.

The varimax rotated factor analysis results for factors of learning effectiveness can be understood with the help of the computed data (Table 5).

| Factors | Items                                                                 | Sum of Squared Loadings |
|---------|----------------------------------------------------------------------|-------------------------|
| 1       | Uses good examples                                                   | 0.644                   |
|         | Is organized                                                        | 0.760                   |
|         | Is concerned about students                                          | 0.669                   |
|         | Demonstrates importance & significance of subject matter            | 0.478                   |
|         | Involves students in hands-on projects                               | 0.597                   |
|         | Encourages student/faculty interaction outside of class time         | 0.581                   |
| 2       | Gives rapid feedback on test/assignment                             | 0.676                   |
|         | Has a sense of humour                                               | 0.683                   |
|         | Is an easy grader                                                   | 0.706                   |
|         | Is flexible with students                                           | 0.495                   |
| 3       | Stays current in his/her field                                      | 0.690                   |
|         | Inspires & motivates students to set & achieve goals which really challenged them | 0.442               |
|         | Has a role of facilitator                                          | 0.666                   |
| 4       | Uses visual aids such as power point                                | 0.794                   |
|         | Assigns group projects                                              | 0.561                   |
|         | Has a professional appearance                                       | 0.463                   |
| 5       | Demonstrates good subject knowledge                                 | 0.394                   |
|         | Uses students' names                                                | 0.490                   |
|         | Is able to command class attention without shouting                  | 0.721                   |
|         | Makes eye contact with students during class                        | 0.727                   |
| 6       | Is courteous                                                        | 0.671                   |
|         | Is approachable                                                     | 0.739                   |
| 7       | Has a role of demonstrator                                          | 0.836                   |
| 8       | Has charisma                                                        | 0.794                   |
| 9       | Is respectful of students                                           | 0.744                   |
### Table 3. Total Variations, Extracted and Rotated Sum of Square Loadings for Learning Effectiveness

| Component | Initial Eigen values | Total Variance Explained | Extraction Sums of Squared Loadings | Rotation Sums of Squared Loadings |
|-----------|----------------------|--------------------------|------------------------------------|----------------------------------|
|           |                      | Total                    | % of Variance                      | Cumulative %                     | Total                   | % of Variance | Cumulative % |
| 1         | 5.990430763          | 23.96172305              | 23.96172305                        | 23.96172305                     | 3.216960214           | 12.86784086 | 12.86784086 |
| 2         | 2.187912473          | 8.75164989               | 32.71373294                        | 8.75164989                      | 2.329419211           | 9.317676842 | 22.1855177  |
| 3         | 1.573671635          | 6.294686541              | 39.00805948                        | 6.294686541                     | 2.006433086           | 8.025732346 | 30.2112504  |
| 4         | 1.389731062          | 5.55892425               | 44.56698373                        | 5.55892425                     | 1.881520335           | 7.526081341 | 37.73733138 |
| 5         | 1.302822483          | 5.211289934              | 49.77827367                        | 5.211289934                     | 1.797959609           | 7.191838437 | 44.9291692  |
| 6         | 1.160346075          | 4.641384299              | 54.41965796                        | 4.641384299                     | 1.484405995           | 5.937623979 | 50.8667938  |
| 7         | 1.127828388          | 4.511313551              | 58.93097152                        | 4.511313551                     | 1.480868977           | 5.92347591 | 56.79026971 |
| 8         | 1.066126272          | 4.264505088              | 63.1954766                         | 4.264505088                     | 1.364246196           | 5.456984786 | 62.2472545  |
| 9         | 1.007646525          | 4.0305861                | 67.2260627                         | 4.0305861                      | 1.244702052           | 4.978808206 | 67.2260627  |
| 10        | 0.893003606          | 3.572014423              | 70.79807713                        | 3.572014423                     |                          |              |              |
| 11        | 0.782897303          | 3.131589212              | 73.92966634                        | 3.131589212                     |                          |              |              |
| 12        | 0.740380888          | 2.96152355               | 76.89118989                        | 2.96152355                     |                          |              |              |
| 13        | 0.716126735          | 2.86406942               | 79.7559683                         | 2.86406942                     |                          |              |              |
| 14        | 0.633903344          | 2.535613377              | 82.29131021                        | 2.535613377                     |                          |              |              |
| 15        | 0.557332311          | 2.229329243              | 84.52063945                        | 2.229329243                     |                          |              |              |
| 16        | 0.521540824          | 2.086192098              | 86.60683155                        | 2.086192098                     |                          |              |              |
| 17        | 0.478298513          | 1.913194051              | 88.5200256                         | 1.913194051                     |                          |              |              |
| 18        | 0.455497167          | 1.821988666              | 90.34201426                        | 1.821988666                     |                          |              |              |
| 19        | 0.406095386          | 1.624381544              | 91.96639581                        | 1.624381544                     |                          |              |              |
| 20        | 0.393800497          | 1.575201989              | 93.5415978                         | 1.575201989                     |                          |              |              |
| 21        | 0.372548594          | 1.490194377              | 95.03179218                        | 1.490194377                     |                          |              |              |
| 22        | 0.349750415          | 1.399001659              | 96.43079383                        | 1.399001659                     |                          |              |              |
| 23        | 0.344094291          | 1.376377165              | 97.807171                         | 1.376377165                     |                          |              |              |
| 24        | 0.282112901          | 1.128451605              | 98.9356226                         | 1.128451605                     |                          |              |              |
| 25        | 0.266094349          | 1.064377396              | 100.000000                         | 1.064377396                     |                          |              |              |
### Table 4. Extracted Communalities for Factors of Learning Effectiveness

| Factor                                      | Initial | Extraction |
|---------------------------------------------|---------|------------|
| Is courteous                                | 1       | 0.629      |
| Is approachable                             | 1       | 0.649      |
| Gives rapid feedback on test/assignment     | 1       | 0.708      |
| Is respectful of students                    | 1       | 0.715      |
| Stays current in his/her field              | 1       | 0.570      |
| Has a sense of humour                       | 1       | 0.655      |
| Uses visual aids such as powerpoint         | 1       | 0.702      |
| Is an easy grader                           | 1       | 0.604      |
| Demonstrates good subject knowledge         | 1       | 0.778      |
| Is flexible with students                   | 1       | 0.568      |
| Assigns group projects                      | 1       | 0.611      |
| Uses students' names                        | 1       | 0.644      |
| Uses good examples                          | 1       | 0.603      |
| Is organized                                | 1       | 0.646      |
| Is concerned about students                 | 1       | 0.683      |
| Is able to command class attention without shouting | 1 | 0.707 |
| Makes eye contact with students during class| 1       | 0.790      |
| Has a professional appearance               | 1       | 0.705      |
| Demonstrates importance & significance of subject matter | 1 | 0.608 |
| Involves students in hands-on projects      | 1       | 0.695      |
| Inspires & motivates students to set & achieve goals which really challenged them | 1 | 0.608 |
| Encourages student/faculty interaction outside of class time | 1 | 0.698 |
| Has charisma                                | 1       | 0.726      |
| Has a role of facilitator                  | 1       | 0.736      |
| Has a role of demonstrator                  | 1       | 0.767      |

### Table 5. Factor wise Results of Varimax Rotation

Rotated Component Matrix (a)

| Component                                      | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    |
|-----------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Is courteous                                  | 0.114 | 0.250 | 0.138 | 0.094 | 0.133 | 0.671 | 0.092 | 0.039 | 0.216 |
| Is approachable                               | 0.080 | 0.054 | 0.269 | 0.038 | 0.109 | 0.739 | 0.052 | 0.021 | 0.067 |
| Gives rapid feedback on test/assignment       | -0.078 | 0.676 | 0.338 | 0.043 | 0.115 | 0.026 | 0.154 | 0.285 | 0.093 |
| Is respectful of students                     | 0.115 | 0.325 | 0.008 | 0.159 | 0.026 | 0.131 | 0.011 | 0.007 | 0.744 |
| Stays current in his/her field                | 0.240 | 0.032 | 0.690 | 0.105 | 0.006 | 0.112 | 0.003 | 0.090 | 0.062 |
| Has a sense of humour                         | 0.088 | 0.683 | 0.093 | 0.343 | 0.050 | 0.118 | 0.048 | 0.187 | 0.041 |
| Uses visual aids such as powerpoint           | -0.082 | 0.109 | 0.081 | 0.794 | 0.050 | 0.198 | 0.027 | 0.061 | 0.013 |
| Is an easy grader                             | 0.117 | 0.706 | 0.132 | 0.081 | 0.028 | 0.181 | 0.122 | 0.058 | 0.131 |
| Demonstrates good subject knowledge           | 0.320 | 0.315 | 0.362 | 0.088 | 0.394 | 0.036 | 0.299 | 0.314 | 0.304 |
| Is flexible with students                     | 0.430 | 0.495 | 0.142 | 0.078 | 0.234 | 0.068 | 0.175 | 0.118 | 0.091 |
| Assigns group projects                        | 0.263 | 0.221 | 0.048 | 0.561 | 0.077 | 0.199 | 0.093 | 0.017 | 0.349 |
| Uses students' names                          | 0.000 | 0.043 | 0.220 | 0.485 | 0.490 | 0.021 | 0.012 | 0.269 | 0.213 |
| Uses good examples                            | 0.644 | 0.013 | 0.321 | 0.015 | 0.199 | 0.061 | 0.182 | 0.093 | 0.012 |
| Is organized                                  | 0.760 | 0.058 | 0.120 | 0.081 | 0.100 | 0.002 | 0.149 | 0.008 | 0.108 |
An Exploratory Study of Student Perception of Instructor Traits in Effective Learning

5. Discussion

Nine factors have been extracted. However, it is clear that significant factor loadings can be seen only in 6 factors thus the nine factors are further reduced to only six, which are representing the critical factors of learning effectiveness from the students’ perspective (Table 5). The factors are discussed below:

**Factor 1: Style of Managing Class**

It is the most vital factor which explains 23.961 percent of the variation and this factor has six significant variables such as: Uses good examples (.644), Is organized (.760), Is concerned about students (.699), Demonstrates importance & significance of subject matter (.478), Involves students in hands-on projects (.597), Encourages student/faculty interaction outside of class time (.581). These variables with positive correlations emerge as important factors of style of managing class influencing the learning effectiveness.

**Factor 2: Evaluation of Student Performance**

There are four loads to this factor of instructor characteristics. The variables that fall under this factor are: Gives rapid feedback on test/assignment (.676), Has a sense of humour (.683), Is an easy grader (.706), Is flexible with students (.495). This factor is extracted as the second most important factor which accounts for 8.752 percent variation.

**Factor 3: Facilitation**

This factor has three significant variables which have 6.295 percent of the total variation. The variables are: Stays current in his/her field (.690), Inspires & motivates students to set & achieve goals which really challenged them (.442), Has a role of facilitator (.666).

**Factor 4: Teaching Style**

This factor also has three significant variables which account for 5.559 percent of variation and the variables are: Uses visual aids such as power point (.794), Assigns group projects (.561), Has a professional appearance (.463).

**Factor 5: Communication Skills: Verbal & Nonverbal**

This is the next important factor, which influences the student perception of instructor characteristics in effective learning. This factor has four factor loadings, namely: Demonstrates good subject knowledge (.394), Uses students' names (.490), Is able to command class attention without shouting (.721), Makes eye contact with students during class (.727). This factor accounts for .521 percent of total variance.

**Factor 6: Attitude**

There are two factor loads in this factor which have 5.853 percent of the variation. These variables are: Is courteous (.671), Is approachable (.739). This shows that attitude plays a significant role in determining effective learning.

6. Conclusion

From the available literature on role of instructor characteristics in effective learning of management students,
it is evident that students do get affected favorably or adversely due to the personality traits of the instructors. In this era of raised self-esteem, students perceive those instructors better who consider the students as grown up individuals with their independent identity, who give them personalized attention, who believe in facilitating the transfer of information and knowledge rather than just imparting the same, who manage the class professionally, who are clear in thought process and communicate efficiently, who are approachable, who are updated in their field, who understand the importance of working in teams.

Thus this research evaluated the effect of instructor characteristics on effective learning by using Factor Analysis. On the basis of the statistical analysis, it was concluded that the critical factors which affect effective learning are: excellent communication skills, attitude, interactive teaching style, a real-world focus, empathy for others, and both organization as well as presentation skills.

This study carries a great potential to update research in related areas. These results may be useful to researchers exploring the gap between students’ and faculty perceptions of effective teaching; however, students’ perceptions of effective teaching have changed with time. This work will be the beginning of a more wide-ranging research agenda in the area of effective teaching at the undergraduate and postgraduate levels.

7. Managerial Implications

Our findings have several important implications for the management institutes. Based on these findings, the management institutes/business schools can design Faculty Development Programs, workshops and other training schedules with a special emphasis on the enhancement of these skills which go a long way in determining the success or otherwise of the instructors.

8. Limitations and Future Research

Since this study is exploratory in nature, it has some limitations that should be acknowledged. First of all, the comparatively small sample size should be made a note of. Future research might comprise the study of student perception of instructor characteristics in private and public business schools in India and also include a considerably larger number of respondents. It might also be conducted in engineering and medical colleges as well as institutions and universities offering other professional courses.

A follow-up study may be designed in order to gain insight into perceptions of students some years after their formal education. In addition, an ensuing study might entail respondents from a larger number of countries having different cultural uniqueness to find out their perceptions toward various instructor characteristics.

There is a need to conduct further researches in different cultures, locations and setups for a further validation and empirical realization of the findings of the present study. A comparative study of students enrolled in different professional courses can be carried out to ascertain the commonalities’ and differences in students’ perception across various courses.

A study can be carried out to determine whether demographic variables like age, gender, culture etc. have any impact on student perception. A study can be carried out to find out whether mode of learning/preferred learning style influences student perception.

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