

Assessing Theory X and Theory Y Assumptions in the Classroom: Are Student Objectives Aligned with Instructors' Expectations?

Nora Johnson
Department of Management
Florida Gulf Coast University
10501 FGCU Boulevard South
Fort Myers, Florida 33965 USA

Faculty Advisor: Dr. Bryan Schaffer

Abstract

The well-known management framework of Theory X and Theory Y¹ identifies two differing assumptions that managers may have of employees. One assumption suggests that “the average human being has an inherent dislike of work and will avoid it if he can”;² the other suggests that “the expenditure of physical and mental effort in work is as natural as play or rest”.³ This study aims to apply McGregor’s theory to the classroom. A longitudinal empirical design investigates whether or not students’ assumptions about their own motivation are impacted by professors’ Theory Y / Theory X assumptions. Three survey questionnaires, based on McGregor’s work, are used in the analyses. Hypotheses suggest that professors’ views of student work ethic will have a direct influence on the way in which those students develop self-perceptions of their own motivation. These expectations are rooted in theory consistent with the self-fulfilling prophecy,⁴ and support the idea that professors’ assumptions and expectations for students largely determine students’ motivation and performance. Consistent with the hypotheses, results have shown that professors with Theory Y assumptions influence students to develop stronger Theory Y perceptions of their faculty. Additionally, professors with Theory X assumptions influence students to develop stronger Theory X perceptions of their own motivation. These results, which are consistent with hypotheses, demonstrate the influential impact of faculty expectations. Findings have strong potential to help leaders in higher education better understand the ways in which faculty themselves truly impact student motivation.

Keywords: Theory X / Theory Y, Motivation, Expectations of Students

1. Theory X / Theory Y: From the Workplace to the Classroom

In 1960⁵ Douglas McGregor introduced Theory X / Theory Y, a theory that, at the time, challenged common beliefs of workplace behavior; however, this theory would soon become a foundation for the science of workplace motivation due to its behavior based roots. Previous models regarding management and the workplace were ignorant of the behavioral assumptions from which Theory X / Theory Y is formed. McGregor even refers to these other models, such as decentralization and democratic leadership, using the metaphor of “old wine in new bottles.”⁶ Each of these “new theories” reiterated the same or similar details while ignoring the actions that cause such results, the actions being the behaviors of both managers and subordinates.

Furthermore, Theory X / Theory Y recognizes the interdependency of this relationship between managers and subordinates. McGregor noted that many of the early theories on management were studied via the church setting.⁷ However, the church is different from that of the business setting – and, by extension, the classroom setting – due to the structure of the relationships. The church functions based on dependent relationships, whereas the business setting

(and the classroom setting) functions based on interdependent relationships. The manager, or the professor, does have power and control, but such power is limited by the behavior and doings of subordinates, of students.

Theory X is rooted in three primary assumptions regarding human behavior. First, people will do all in their power to avoid expending effort on work, especially work that is voluntary or additional to work that is already required. Second, one will not complete work without being manipulated into doing so, whether through the use of punishments or control. Finally, one does not have the desire to take on greater responsibilities that may lead to greater achievements or results, but instead only wants to complete the minimum of tasks required.⁸

The Theory X employee is one that chooses to work not for the enjoyment, satisfaction, and fulfillment that a job well done will provide, but instead works for the financial compensation only. With the knowledge that he/she will receive compensation for completing the tasks required by the job, the Theory X employee only does the bare minimum of the tasks required. To spend more time on a task so that the result is a stronger product or more efficient service would be outrageous for this employee. To do anything more than what is required or that is demanded by the rules would be irrational.

Similarly, the Theory X student is one that does homework assignments simply because the assignment, or the task, is required and is needed for a grade. The student does not complete the assignment with the interest of gaining knowledge nor with the hope of furthering his/her understanding of the topic or area of study. The Theory X student does not give thought to how they may use the information that the class is providing in the future, nor does he/she want to attend class.

In contrast to Theory X, McGregor's Theory Y is based on the assumption that one works in order to promote and better the goals of the organization or group with which he/she is associated. Such work does not have to be mandated through control or punishments, but will be done simply for the positive outcomes in which it encourages. This person does not do work as a means of avoiding punishments, but instead as a means of gaining rewards, recognition, and personal feelings of achievement and satisfaction. This desire for personal achievement leads one to desire greater responsibilities and freedoms in respect to his or her work.⁹

Within the work environment, a Theory Y employee has an intrinsic desire to succeed and yearns for achievement. This worker takes pride in gaining greater responsibility and wants to be held accountable for his/her work; he/she takes pride and finds pleasure in being commended for his/her successes.

Likewise, the Theory Y student completes homework assignments, reads the course textbook and materials, and attends class for the sake of the knowledge that can be gained. This student craves success in his/her classes, and he/she knows that the content that is being learned will lead to greater success and achievement in his/her future. The Theory Y student asks questions in class and thinks critically about the course material.

In comparison, the Theory X employee works because he/she has to, the Theory Y employee works because he/she wants to. The Theory X employee only cares about receiving payment for work while the Theory Y employee desires the personal satisfaction, enjoyment, and recognition that results from a job well done.

Similarly, the Theory X student attends class because he/she needs the attendance points, whereas the Theory Y student attends class to take full advantage of the opportunity that he/she has to ask questions from someone who demonstrates mastery in a topic, such as a professor. The Theory Y student thinks about ways in which he/she is able to apply the course content in the future, while the Theory X student is only concerned with whether or not a topic will be on the next exam.

Why do these assumptions, Theory X or Theory Y, matter? It is these assumptions, when held by a superior figure such as a manager or a professor, that influence the behaviors of these superiors, thus impacting the subordinates involved, such as the employees or students. This influence, which is in accordance with the self-fulfilling prophecy¹⁰ and has been studied throughout this research project, is furthered due to the aforementioned interdependent nature of the relationships in business settings¹¹ and thus in classroom settings as well.

With an understanding of Theory X and Theory Y employees and students, the following question is brought to the surface: do the perceptions had by an employee's manager regarding the motivation of the employee impact whether or not the employee behaves in a Theory X or a Theory Y manner? Do professors' beliefs of his/her students' motivation influence the actual motivation of the students, Theory X or Theory Y? The latter forms the basis for the content of this study, and will be further explored.

2. Literature Review

“What managers expect of their subordinates and the way they treat them largely determine their performance and career progress.”¹² This statement exemplifies the self-fulfilling prophecy¹³ in business; the manner in which a superior treats his or her employees will impact the employees', or the subordinates', self-confidence and therefore their desire

to take on greater responsibility. Therefore, one may suggest that a superior with a Theory X mindset will, as a result of the self-fulfilling prophecy, yield employees with a Theory X work ethic, and thus minimal motivation. In contrast, an employee's intrinsic desire to succeed will be fostered and will grow with the support of a Theory Y minded superior who demonstrates faith and confidence in that employee's competence. Despite such significance to the workplace, prior to this study such logic has yet to be applied to the classroom environment within higher education.

Historically, the self-fulfilling prophecy, also known as the Pygmalion effect,¹⁴ has been applied to the classroom environment. A recent study of fifth grade math students concluded that, "Teachers' expectancies of their students' math competencies were shown to significantly predict changes in students' math achievement,"¹⁵ which therefore supports the presence of the Pygmalion effect in an elementary classroom setting. Although there is a presumed relationship between the Pygmalion effect and Theory X / Theory Y, the application of Theory X / Theory Y to the classroom itself, at any level of education, has seldom been studied. No studies on the application of the Theory in settings of higher education alone, i.e. colleges and universities, were able to be identified. This absence of research in the environment of collegiate classrooms and lecture halls yields many questions, as the classroom is highly comparable to a business organization; the professor, as a 'manager,' carries the implied responsibility of training, developing, and leading their students.

In one journal dated back to 1991, an article proposed a push for greater understanding of Theory X / Theory Y in the area of public administration education.¹⁶ Via a detailed analysis of Theory X / Theory Y and of alternative viewpoints in the history of public administration education, the researchers determined that "If the aim of public administration educational processes is to help students become such public administrators, it seems clear that theory Y approaches must be built into the procedures for carrying out educational responsibilities. Instructors must be sensitive to the... self-fulfilling nature of different educational assumptions... and practices."¹⁷ Despite this strong conclusion, further research of such an application of Theory X / Theory Y was unable to be located, and is presumed to have not been completed.

As McGregor stated, "Management cannot provide a man with self-respect, or with the respect of his fellows, or with the satisfaction of needs for self-fulfillment. We can create condition such that he is encouraged and enabled to seek such satisfactions for himself, or we can thwart him by failing to create those conditions."¹⁸ Such a statement yields many questions about the environment that students of higher education face. Do faculty perceptions of student motivation, whether Theory X or Theory Y, impact student motivation, thus holding true with the Pygmalion effect? It is this question for which this research study sought to answer.

3. Theory/Hypothesis

Is there a relationship between student motivation and faculty perceptions of student motivation? This was the primary research question in which this study sought answer. In researching this question, two additional variations surfaced as secondary research questions, as follows: Are students' beliefs regarding faculty expectations affected by that faculty member's perceptions? Do faculty perceptions of student motivation influence students' beliefs of their own motivation?

The hypotheses are as follows:

H1a: Professors holding Theory Y assumptions of student motivation will influence their students to develop stronger Theory Y perceptions of their faculty over the course of the semester.

H1b: Professors holding Theory Y assumptions of student motivation will influence their students to develop stronger Theory Y perceptions of their own motivation over the course of the semester.

H2a: Professors holding Theory X assumptions of student motivation will influence their students to develop stronger Theory X (or weaker Theory Y) perceptions of their faculty over the course of the semester.

H2b: Professors holding Theory X assumptions of student motivation will influence their students to develop stronger Theory X (or weaker Theory Y) perceptions of their own motivation over the course of the semester.

Why is it believed that the assumptions of the professor, Theory X or Theory Y, influence the beliefs and behaviors of the students? A professor with Theory Y assumptions of a student's work ethic is presumed to spend more time supporting said student, such as by providing that student with more challenging questions and greater opportunities

than would be endowed to a student for which a professor has Theory X assumptions. For example, a professor is more willing to help a student that attends every class and is actively engaged as opposed to a student that misses class frequently and who neglects to participate in class discussions. In accordance with the self-fulfilling prophecy, researchers believe that the students who receive lesser support and encouragement from professors will in fact self-identify as having Theory X assumptions of their own motivation, and vice versa.

4. Methodology

The study was carried out utilizing a two-part student survey – Student Survey A and Student Survey B – and a single corresponding faculty survey. All surveys were based on a six-level Likert scale. Each of the surveys was developed by the researcher and her faculty advisor. While prior research lacks examples of studies employing established and valid operationalizations of Theory X and Theory Y,¹⁹ all the surveys used in this study were carefully developed based on McGregor’s theory, and were carefully reviewed and edited by experts in the field (three faculty members whose areas of expertise are Organizational Behavior and Management).

Student Survey A measured students’ beliefs regarding faculty perceptions of student motivation. Survey A included statements such as, “If I want to further my studying in the course my professor will readily help me find additional materials” and “My professor believe that I work my hardest on all of my coursework.” Student Survey B measured students’ self-perceptions of their own motivation. Survey B included statements such as, “I seek to find an answer when there is a concept or question that I do not understand” and “I understand the importance of being in class for lectures.” Both Student Survey A and B were administered twice throughout the course of the Spring 2016 semester.

The Faculty Survey measured faculty perceptions of student motivation and was administered once at the start of the Spring 2016 semester. The Faculty Survey included statements such as, “My students want to attend class” and “My students understand the importance of being present in class for lectures.” Professors with faculty survey scores of less than 3 were considered to be Theory X, and professors with scores of greater than 3 were considered to be Theory Y. For analysis purposes, surveys were grouped by class and matched with the corresponding faculty member’s survey. Each survey scale showed high internal consistency reliability with alphas all greater than 0.7. (Student Survey A: $n=1,196$ $\alpha=0.742$; Student Survey B: $n=1,196$ $\alpha=0.744$; Faculty Survey: $n=10$ $\alpha=0.846$)

A convenience sample with the following criteria was used: 1) Students over the age of 18 enrolled in courses at a large University located in the Southeastern United States during the Spring 2016 semester and 2) Faculty from the same university teaching classes during the Spring 2016 semester. Survey questionnaires were only administered to students and faculty at the University who were participating in the study. Such convenience sampling was deliberate in order to allow for the sample to include participants that were qualified, willing, and available to participate. Researchers recognized the limitations of using such a sample, and acknowledge that the obtained data may not be representative of the entire population.

For the first administration of student surveys, Time 1, the sample size was $n=695$. The sample size for Time 2 was $n=501$. The faculty sample size was $n=10$, which consisted of 16 course sections.

Once data collection was completed, a within-between ANOVA was used to analyze means. Mean comparisons between Time 1 and Time 2 of surveying in addition to mean comparisons across different class sections were completed. A fine-grained analysis was used in order to identify any unique results, anomalies, and/or underlying trends. In completing such a detailed analysis, two specific course sections were emphasized and compared due to their noteworthy decreases in student survey scores versus their relatively high Theory Y faculty survey score.

This research project received IRB approval via the expedited review process prior to the start of data collection. The decision to approve, declared by the qualified members of the University IRB, was based on a comprehensive review of the project and its elements, such as: the abstract, literature review, research questions and hypotheses, methodology, letters of cooperation, and more.

5. Results

The overall trend showed that for all classes, student scores on both Survey A and Survey B decreased significantly from Time 1 to Time 2 (see table 1). This overall decrease of Student Survey A scores from Time 1 to Time 2 means that students developed stronger Theory X perceptions of faculty throughout the semester. The overall decrease of Student Survey B scores from Time 1 to Time 2 means that students developed stronger Theory X self-perceptions of their own motivation throughout the semester as well.

Ten faculty members, teaching 16 different class sections, participated in the study. The lowest faculty survey score, thus the score of the most Theory X minded professor, was 2.33. The highest faculty survey score, thus the score of the most Theory Y minded professor, was 3.67. As previously mentioned, a professor is to be considered Theory X if the faculty survey score is less than 3 and Theory Y if the faculty survey score is greater than 3. Six faculty members had survey scores less than 3 (ranging from 2.33 to 2.67) and four faculty members had survey scores greater than three (ranging from 3.58 to 3.67).

Table 1. Overall mean comparison of student survey scores between T1 and T2

	Student Survey A	Student Survey B
Time 1	3.94	4.07
Time 2	3.87	3.95
df (within-groups)	1194	1194
F-value	3.41	9.27
Statistically Significant	Yes; $p < 0.10$	Yes; $p < 0.005$

T1 (n=695); T2 (n=501)

In terms of the first set of hypotheses consisting of H1a and H1b, for classes with Theory Y faculty, Student Survey A scores increased significantly from Time 1 to Time 2, while Student Survey B scores did not change significantly. Therefore, H1b was not supported; however, H1a was supported, meaning that professors holding Theory Y assumptions of student motivation will influence students to develop stronger Theory Y perceptions of their faculty over the course of the semester (see table 2).

Table 2. Mean comparison of student survey scores from classes with Theory Y faculty between T1 and T2

	Student Survey A	Student Survey B
Time 1	3.92	4.03
Time 2	4.07	3.92
df (within-groups)	248	248
F-value	3.88	1.89
Statistically Significant	Yes; $p < 0.05$	No

T1 (n=142); T2 (n=108)

For the second set of hypotheses consisting of H2a and H2b, for classes with Theory X faculty, Student Survey A scores did not change significantly, whereas Student Survey B scores decreased significantly. Therefore, H1a was not supported; however, H2b was supported, meaning that professors holding Theory X assumptions of student motivation will influence students to develop stronger Theory X perceptions of their own motivation over the course of the semester (see table 3).

Table 3. Mean comparison of student survey scores from classes with Theory X faculty between T1 and T2

	Student Survey A	Student Survey B
Time 1	3.87	4.03
Time 2	3.80	3.91
df (within-groups)	378	378
F-value	1.24	2.70
Statistically Significant	No	Yes; $p < 0.10$

T1 (n=228); T2 (n=152)

Results from more fine-grained analysis of the data displayed a unique decrease for two course sections (see table 4). Despite the relatively high Theory Y faculty survey score, students in these two classes developed stronger Theory

X, or weaker Theory Y, assumptions of the professor throughout the course of the semester. Therefore, there seems to be a clear discrepancy between how the professor is conveying his/her beliefs regarding student motivation and what he/she truly believes of students.

Table 4. Mean comparisons of survey scores between T1 and T2 by selected class

Course Identifier	34 (Student Survey A)	34 (Student Survey B)	35 (Student Survey A)	35 (Student Survey B)
Time 1	4.1180	3.8902	4.0194	3.7452
Time 2	3.7255	3.5922	3.7360	3.6500
Faculty	3.5833	3.5833	3.5833	3.5833
Difference	-.3925	-.2980	-.2834	-.0952

Based on a post-hoc analysis of the data, two course sections – taught by the same professor – were identified as being particularly noteworthy due to the unique relationship between the faculty survey score and the change in the student survey scores between Time 1 and Time 2. Despite the faculty member self-identifying, through their faculty survey score, as having Theory Y assumptions of students, students identified the professor as becoming more Theory X over time. The researcher would like to note that the inclusion of the data in Table 4 is to recognize the need for further research in the area, specifically in a case-study style for courses in which there are notable discrepancies between the faculty survey scores and the Student Survey A scores.

6. Discussion/Implications/Conclusion

Based on the results of the study, students of professors with stronger Theory Y assumptions developed stronger Theory Y perceptions of said faculty member, and students of professors with stronger Theory X assumptions developed stronger Theory X self-perceptions. Taking into account the characterization of the Theory X versus the Theory Y student, it is assumed that most professors prefer a Theory Y student; such a student has a yearning for achievement and success, and a desire to learn. In contrast, the Theory X student is lacking of such a want to learn and does not strive for utmost success. Therefore, such findings have significant practical implications for both professors and students.

First, professors must be conscious of how they are communicating their assumptions to students. As shown by the support for H1a, students are able to identify professors with consistent Theory Y assumptions. Perhaps of even greater importance for faculty is the support for H2b, meaning that students of professors with Theory X assumptions develop stronger Theory X self-perceptions of their own individual motivation. Therefore, it can be suggested that a professor who maintains negative, Theory X attitudes towards students will, in turn, find him/herself with less motivated students. McGregor’s work has consistently noted that a Theory Y (versus a Theory X) manager strives to create a participative and empowering work environment.²⁰ At the researcher’s present university, a guiding principle in the mission statement suggests that *student-centered learning* is a predominant and expected form of pedagogy. Such learning is highly participative and would thus suggest faculty instruction that would mirror McGregor’s description of Theory Y. Therefore, other approaches that align more with Theory X instruction, would likely be viewed unfavorably, stemming from inconsistent alignment between classroom instruction and University culture and values.

Additionally, professors must be sure that they are properly conveying their attitudes of students, as is exemplified in the fine-grained, post-hoc analysis. For example, a professor may have Theory Y assumptions of students, as did the professor whose results are discussed in the post-hoc analysis of Table 4; however, when in the classroom setting, the professor may unknowingly convey a seemingly Theory X attitude towards students.

Second, students must recognize that they are influenced by their professors. Students must safeguard themselves against professors with stronger Theory X assumptions of students. If a student recognizes a professor as expecting the least of his/her students, those students should not allow themselves to fall victim to expecting the least from themselves. Students must allow for Theory Y leaning professors to strengthen their confidence, motivation, and passion for knowledge and learning.

6.1 Limitations And Future Research

The primary limitation of this study was in respect to the time constraint between Time 1 of data collection and Time 2 of data collection. The desire for a longitudinal sample, while still allowing the appropriate time needed for analysis prior to conference presentation, meant that in some situations, there was a gap of approximately one month between data collections. This minimal time gap may have limited the amount of influence that a professor could have had on students. A second limitation includes that of a decreased sample size between Time 1 and Time 2. The inability to control for class attendance, in addition to the professors' willingness – or unwillingness – to accommodate for survey administration, contributed to such a decline. Additionally, another limitation was that of the content area of the course surveyed. Many of the classes sampled are considered to be prerequisite courses for business students at the University. In explanation of how such a factor acts as a limitation: does the fact that a student is a Marketing major but was surveyed in his/her prerequisite Managerial Accounting course impact his/her motivation and perceptions of said professors' beliefs regarding student motivation? Exam schedules also posed a limitation on this study. When Time 1 of data collection took place most classes were yet to have taken the first exam in the course. In contrast, by Time 2 of data collection, the majority of classes were preparing for, or had recently taken, their second examination. Do students become more Theory X or Theory Y based on how well they were prepared/feel prepared for an exam? Another limitation to the study is in respect to measurement. Despite having developed Theory X / Theory Y, McGregor never constructed a sample instrument²¹ to measure attitudes as being Theory X or Theory Y. It is this lack of a designated framework that makes the valid application of Theory X and Theory Y difficult. In the face of such a deterrence, the researchers performed much analysis on measurement validity, including adjusting survey instruments to reflect an appropriate and highly accepted internal consistency reliability, as is detailed in the section titled "Methodology." A final limitation is related to the size of the faculty sample. While a number of students were represented in each of the classes from the different faculty, only ten faculty members participated in the study. Furthermore, the highest score among the faculty members on the survey was a 3.67/5.0. Future research should employ more faculty participants, with scores representing a wider range of Theory Y and Theory X perceptions.

It is suggested that further research include an expanded time period between Time 1 of surveying and Time 2 of surveying, as well as an increased sample size of faculty members. Such increases may allow for results of greater significance. Additionally, a case study analysis of select classes demonstrating unique results, such as those identified in the fine-grained analysis, may generate further research questions or reveal extenuating relationships between professors' assumptions and students' perceptions. Such research on assumptions and motivation in the classroom environment is critical as the relationship between teacher and student is one that impacts students from childhood all that way throughout adulthood. Finally, researchers encourage further testing on the measurement validity of the survey instruments used in this study with the hope that their framework may continue to be utilized and/or improved.

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