AN APPLICATION OF CRITICAL THINKING PRINCIPLES TO MARKETING EDUCATION: *THE STUDENT-DRIVEN SYLLABUS*

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ABSTRACT

This paper describes an empirical study which analyzes an application of critical thinking principles to a creative approach to teaching Consumer Behavior. Students designed their own *student-driven syllabus* which was followed throughout the entire semester. In a comparison of the test class and a traditional class, both taught by the same instructor, using a variety of effectiveness measures students rated the class using the student-driven syllabus higher than the traditional class using the instructor's syllabus. The creative opportunity for increased critical thinking led to greater satisfaction, learning, and skill development as perceived by the students. Applying critical thinking principles to the organization of a course can lead to extremely favorable results for students and professors alike.

INTRODUCTION

As marketing educators have moved from a traditional, passive model of teaching to an active, experiential approach to student learning, the need to understand and encourage critical thinking skills has become more a more important element of business education. In *Teaching Students to Think Critically* (Meyers 1986), *Developing Critical Thinkers* (Brookfield 1987), and *Promoting Active Learning* (Meyers and Jones 1993) numerous studies on critical thinking (CT) offer the basis for a paradigm to be used in education. Several important characteristics of critical thinking classes include: the educator must encourage student interest, challenge student thinking, provide an interactive classroom atmosphere, allow students time to reflect, and create disequilibrium. Much of the theory of CT is based on the earlier works of psychologists such as Piaget in the area of cognitive development. Most classes in the discipline of marketing move from the abstract theory to concrete real-life examples, yet cognitive development theory suggests that this is the opposite way humans develop. In addition to reviewing foundations of

theory in the literature, this study proposed a unique method of stimulating critical thinking in the classroom for consideration by marketing educators and measurement of effectiveness of this creative technique.

The new approach to CT proposed in this study is the *student-driven syllabus*. On the first day of any semester or term, most professors walk into the class with a set syllabus that establishes all the requirements, rules, objectives, and assignments. What if the instructor started the first day of class by suggesting that the students could design their own course, and then proceeded to rip up the syllabus brought to the class? Introduction of the student-driven syllabus does not need to be so dramatic yet the use of such a technique follows the basic premise of CT theory (explanation and justification for the technique are explained in detail in later sections). Most faculty espouse the need for critical thinking yet few have studied the ways to actually encourage CT in the classroom. This paper will (1) review literature related to both cognitive development and critical thinking, (2) review marketing education literature related to important skills for marketing graduates, (3) present a paradigm for marketing educators to use in teaching which incorporates CT concepts, (4) present the methodology for study of an application of CT principles to a new, creative approach to designing a course syllabus, (5) analyze results of the effectiveness of the student-driven syllabus, and (6) offer conclusions and specific recommendations for educators considering the proposed technique.

COGNITIVE DEVELOPMENT AND CRITICAL THINKING

An understanding of cognitive development is important in the understanding of critical thinking theory. Piaget's (1952) theory is the most well-known theory on cognitive development in the psychology literature. He suggests that children move through stages in their intellectual development, from concrete experience to abstract

thought. Children are not passive in their development, they are active in interacting with the world according to Piaget. This *active discovery* leads children to then form "structures for thought." The final stage of development, "Formal Operational," involves abstract and logical reasoning. Piaget discovered few people even reach this stage. Movement from concrete experience to abstract thought is actually the opposite way educators teach. Typically, instructors first offer the theory related to the subject and then present or ask for practical examples of the theory. Projects and experiential learning assignments often follow lectures. Piaget would suggest that educators should first create active learning environments for students and then move toward abstraction.

Piaget's developmental paradigm is similar to Kolb's (1984) experiential learning model, which suggests that learning moves through the four stages of concrete experience, reflective observation, abstract conceptualization, and active experimentation. Similarly, the Kolb model moves from concrete to abstract. King and Kitchener's (1994) Reflective Judgment Model also represents a developmental model suggesting that the average undergraduate college senior rates 3.99 on a scale of 7, therefore faculty should focus on earlier levels (3 and 4) of development. Reflection is an important component of all cognitive development models.

Although most faculty purport the importance of critical thinking in the classroom, few actually understand its meaning. In a study of faculty in colleges and universities throughout California, Paul, Elder, and Bartell (2002) discovered that 89% of the sample said that critical thinking is a primary objective of their instruction, yet only 19% could give a clear definition of what it is. Although much has been written on critical thinking, there is no unanimity in what critical thinking means.

In *Developing Critical Thinkers*, Stephen Brookfield (1987) discovered four primary components of critical thinking:
> (1) Identifying and challenging assumptions is central to critical thinking.
> (2) Challenging the importance of context is critical to critical thinking.
> (3) Critical thinkers try to imagine and explore alternatives.
> (4) Imagining and exploring alternatives leads to reflective skepticism.

SKILLS DEVELOPMENT IN MARKETING EDUCATION

Numerous studies in the marketing education literature have discussed the importance of workplace/career skills development for marketing students. Lamb, Shipp, and Moncrief (1995) defined a *skill* (an underlying ability than can be refined through practice), reviewed the variety of skills mentioned in the literature, and developed an approach to integrate skills into the curriculum. Based on the literature, Gault, Redington, and Schlager (2000) suggested a summary of skills for marketing students which included 13 skills in four categories:

1. Academic Skills
   a. Analytical skills
   b. Computer applications
   c. Creative thinking
   d. Informational search
   e. Problem solving
2. Job Acquisition Skills
   a. Job interviewing
   b. Job networking
   c. Resume writing
3. Interpersonal Skills
   a. Leadership and teamwork
   b. Relationship building
4. Communication Skills
   a. Oral presentation
   b. Proposal writing
   c. Written communication

In a study of the importance of various skills, Floyd and Gordon (1998) found that problem-solving skills are most important for employers when hiring recent graduates followed by communication skills, work experience, and interpersonal skills. In a study of respected marketing educators, Smart, Kelley, and Conant (1999) reported the need for skills development for students in the areas of communication, decision-making, and creative thinking abilities. Problem solving (Cooper and Loe 2000) and critical thinking (Ronchetto and Buckles 1994) skills often rate at the top of the list for important skills. Business schools today are listening to employers and focusing on skill development in addition to knowledge acquisition.

PARADIGM WHICH INCORPORATES CRITICAL THINKING CONCEPTS INTO MARKETING EDUCATION

If marketing educators are committed to the importance of incorporating critical thinking into their courses, they need guidelines in order to be

successful. In a presentation on critical thinking, Karns, Clayson, Frontczak, and Kelley (2002) outlined the important factors to consider for CT classes. These include:

1. Interactive, active classroom atmosphere
   - Classes should not just be "transfer of knowledge," lecture oriented.
   - Student participation/discussion important part of class.
   - Peer interaction correlates positively with improved CT.
   - Student inquisitiveness should be encouraged (allow them to ponder issues).
   - Don't just say "any question?"
   - Support interaction in a non-judgmental way.
2. Give students time to reflect
   - Reflection important part of cognitive development and experiential learning theory.
   - Need time to reflect.
   - Use silence as a teaching tool even though uncomfortable.
3. Create disequilibrium
   - Challenge student thought structures.
   - Create uncertainty, ambiguous findings.
   - Stir emotions in students.
   - "Reflective skepticism" is good.
   - Start class with thought-provoking (no answer) question, controversy.
   - Balance information overload and too little information (challenge).
   - Let students struggle.
   - Balance support and challenge.
4. Remember the importance of "conceptual frameworks"
   - Lecture okay.
   - Students need content as a basis of CT.
   - Balance lecture and experiential activities.
5. Engage student interest
   - Current topics, issues, examples.
   - Encourage responses based on emotion.
6. Instructor encouragement and support
   - Be less of an "authority figure."
   - Atmosphere of trust.
   - Hospitable environment.
   - Model CT process.
   - Be non-judgmental, open to ideas.
   - Encourage them to formulate own judgments.
   - Validate students' comments in class.
   - Show respect.
   - Be patient.
   - Non-verbal support.
7. Arrange classroom for interaction
   - Best everyone could see everyone else (circle, rectangle).
   - Instructor not in power position.
   - Arrange for small groups.
8. Use written assignments for CT
   - Let students formulate own views (be surprised).
   - Writing important for processing and internalizing knowledge (offer meaningful written feedback).
   - Shorter, more frequent papers (practice CT).

Based on this paradigm of critical thinking in the classroom, the study on the *student-driven syllabus* was proposed.

METHODOLOGY FOR A STUDY OF AN APPLICATION OF CT PRINCIPLES

Using many of the principles of a CT classroom mentioned in the previous section, the authors proposed a way to let the students struggle and create disequilibrium in the class while at the same time supporting students in a non-judgmental way. On the first day of class for a Consumer Behavior course consisting mostly of marketing majors, the instructor walked into class with the traditional multiple-page, detailed syllabus. Typically, the professor simply says, here is what we are going to do for the semester without any input from the students. Critical thinking literature supports the fact that educators should be "less of an authority figure," and "not in a position of power." Also, CT classrooms encourage students to form their own judgments. Based on the knowledge of CT theory, the Consumer Behavior professor proceeded to say to the students that maybe it would be better to structure the class the way they wanted it to be. The professor said they would be open to *any ideas* on how to structure the class and proceeded to rip up the existing syllabus. All students were shocked at

this display. Most students responded with great excitement about the possibility of organizing a course the way they wanted to and a few sat in horror at the thought of the professor not providing the structure they were accustomed to. After the initial enthusiasm, conversation and wild ideas, the professor suggested that everyone should go home and think about this offer until the next class period. If a majority were in favor of the *student-driven syllabus* at the beginning of the next class, then the class would proceed to design the syllabus. The only stipulation was that the course needed to remain a course of Consumer Behavior and the objectives of the course (following the official course syllabus directed by the school curriculum committee) must remain. Other than that, the professor said they were open to anything. The next class came and the vote was overwhelmingly a vote in favor of the student-driven syllabus. The class period was devoted to a discussion of what should happen for the entire semester. The students fairly quickly took over leading the discussion, while the professor took a seat and remained silent, often somewhat worried about the direction of the conversation and truly outlandish ideas. To the surprise of the professor, the students ended up with a rigorous course structure, still including assignments and exams, although quite different from those originally proposed, which they all agreed upon. From that point on, a new *student-driven syllabus* was written and their plan followed throughout the semester. Student interaction, the creation of disequilibrium, stirring emotions, and letting students express their own views were the foundation of the class.

At the end of the semester, several measures of the effectiveness of the *student-driven syllabus* were implemented. This class was compared to another section of Consumer Behavior taught by the same professor, using the traditional, faculty-prepared syllabus. A four-part questionnaire was prepared, tested, and administered to each section of Consumer Behavior. Part 1 of the survey included an evaluation of the course based on a form developed by Sandler and Kamins (1987), similar to one also used by Butler and Laumer (1992) and Olsen (1994). Students were asked to respond to 17 statements on a nine-point rating scale (where 1=strongly disagree, and 9=strongly agree). The items relate to student involvement and enjoyability, learning, and satisfaction with the course. Part 2 of the evaluation was based on a 15-item form used by Celuch and Slama (2000) where they measured critical thinking in the class. Students were asked to rate each item, such as "develops problem solving skills," on a 7-point scale (where 1=much worse than

other classes, and 7=much better than other classes). Part 3 of the evaluation asked the students to rate the course and the instructor using a 19-item form, again developed by Celuch and Slama (2000). Students were asked to rate the class on a 5-point scale where 1=poor and 5=excellent. Part 4 of the evaluation process included items related to whether or not a student would recommend this course to other students. A 9-point agreement scale was used for this part of the evaluation process.

Finally, the results from the official school course evaluations were used to compare the two sections. The final sample size for the class using the *student-driven syllabus* was 35 while the sample size for the control class was 17.

RESULTS

In nearly all measures of the perceived effectiveness of the *student-driven syllabus*, students using the newly created syllabus rated the course higher. In only four cases out of 58 items, students in the traditional class rated the course higher. In addition, all means reported in the official university instructional assessment for the *student-driven syllabus* section were higher than the traditional course. The mean values for all statements are provided in the following tables.

Students in the *student-driven syllabus* class rated their involvement, enjoyability, learning, and satisfaction with the course higher than those students in the traditional class according to findings in Table 1. Students also suggested that the class using the *student-driven* syllabus improved their critical thinking, communication, teamwork, and decision-making skills more than other classes, according to data in Table 2. Means for all statements were higher in the test class. In the overall rating of the instructor and the course in Table 3, 15 of 19 means provided more favorable findings in support of the *student-driven syllabus* course. Table 4 shows strong support for the class decision to use the student-driven syllabus. Finally, all scores on the official course evaluation were higher in the test class.

TABLE 1

Overall Evaluation of the Course
(9-point agreement scale where 1= strongly
disagree and 9=strongly agree)

		Test Class	Traditional Class
1.	This course was helpful to me in understanding marketing problems.	8.37	7.71

		Test Class	Traditional Class
2.	The project made the course more interesting.	6.43	6.24
3.	Working in this course allowed me to apply what I learned to real life situations.	8.03	7.12
4.	I was satisfied with my work in this course.	7.63	7.18
5.	I learned a lot about consumer behavior from this course.	8.54	8.00
6.	I was highly involved with this course.	7.66	7.06
7.	This course was enjoyable.	8.66	8.35
8.	I was satisfied with the classroom lectures.	8.91	8.41
9.	This course promoted better student/teacher relationships.	8.40	7.41
10.	I believe this course is valuable for advanced marketing classes.	8.49	7.65
11.	This course was not boring.	8.60	8.35
12.	I enjoyed working on the project.	6.23	5.76
13.	I would recommend this course to other marketing students.	8.74	8.00
14.	This course did not seem silly.	8.46	8.12
15.	This course was not a waste of my time.	8.74	8.59
16.	This course suggests the instructor cares about me learning consumer behavior.	8.74	8.35
17.	This course was worth the effort.	8.77	7.94

TABLE 2

Evaluation of Critical Thinking in the Course
(7-point scale where 1=much worse than other classes and 7=much better than other classes)

		Test Class	Traditional Class
1.	Develops problem-solving skills	5.68	5.35
2.	Improves ability to pay attention	6.12	5.88
3.	Develops ability to concentrate	5.88	5.59
4.	Improves listening skills	6.21	6.00
5.	Improves speaking skills	4.76	4.06
6.	Improves writing skills	6.09	4.59
7.	Facilitates learning concepts/principles	6.44	5.71
8.	Facilitates learning methods/measure	6.26	5.71
9.	Develops an openness to new ideas	6.47	5.88
10.	Develops ability to work productively with others	6.00	5.29
11.	Cultivates responsibility for one's own learning	6.26	6.06
12.	Improves self confidence in ability to learn	5.88	5.76
13.	Develops respect for others	5.68	4.71
14.	Develops capacity to think for one's self	6.24	5.59
15.	Develops capacity to make informed decisions	6.50	5.94

TABLE 3

Evaluation of the Instructor
(5-point scale where 1=poor and 5=excellent)

		Test Class	Traditional Class
1.	Rate the course in general.	4.91	4.47
2.	Rate the instructor.	4.97	4.88
3.	The instructor was organized in presenting material.	4.80	4.65
4.	The class achieved course objectives.	4.91	4.47
5.	Did the instructor treat students with respect?	5.00	4.94
6.	The instructor was available outside of class.	4.80	4.71
7.	The instructor fulfilled classroom responsibilities.	4.94	4.82
8.	The instructor explained difficult ideas.	4.63	4.65
9.	The instructor provided insight into material.	4.83	4.82
10.	The instructor appeared knowledgeable about subject matter.	4.97	5.00
11.	The instructor provided opportunity for questions and participation.	4.89	4.71
12.	The instructor used meaningful examples and illustrations.	4.91	4.82
13.	The instructor expressed ideas clearly.	4.80	4.82
14.	The assignments helped in learning material.	4.60	3.88
15.	The instructor used fair methods in grading.	4.60	4.18
16.	With relation to other instructors, I would rate this instructor...	4.89	4.94
17.	Compared to other classes, I learned more.	4.49	4.18
18.	Compared to other courses on the same level, I put more effort into this class.	4.20	3.82
19.	Instructor ability to field questions effectively.	4.77	4.53

TABLE 4

Evaluation of the Course
(9-point agreement scale where 1=strongly disagree and 9=strongly agree)

		Test Class	Traditional Class
1.	I enjoyed this class more than most.	8.40	8.35
2.	I believe this class met the course objectives.	8.66	8.29
3.	I would recommend this instructor to other students.	8.89	8.71
4.	This class encouraged critical thinking.	8.31	7.88
5.	I am glad we revised the syllabus this semester.	8.17	*
6.	I wish we had stayed with the original syllabus.	2.54	*

7.	I would recommend a student-driven syllabus for other classes.	8.29	*
* (not appropriate questions for Traditional Class.)			

TABLE 5

Summary Scores for the Official Course Evaluation
(6-point scale where 1= very poor and 6= excellent)

		Test Class	Traditional Class
1.	Course as a whole	5.33	5.00
2.	Course content	5.37	4.93
3.	Contribution to the course	5.70	5.29
4.	Effectiveness in teaching subject	5.56	5.21

CONCLUSIONS AND RECOMMENDATIONS

In conclusion, the formal student evaluations of the student-driven syllabus were extremely favorable. In addition, students informal, verbal feedback at the end of the semester supported their overall enjoyment of a class where they were able to design their own syllabus. Interestingly, through word-of-mouth many students the following semester had heard about this creative idea and requested that we also use a student-driven syllabus. Background information on CT oriented classes (Karns, Clayson, Frontczak, and Kelley 2002) suggests the following three aspects of the class are important: (1) there is no one best way to structure CT oriented classes, (2) students need to practice critical thinking in all courses, and (3) it is the educator's responsibility to create an atmosphere for critical thinking. Allowing students the opportunity to create their own syllabus and encouraging the process provided the atmosphere for critical thinking. The dramatic first day and energy created in those first couple of classes set the stage for a student-centered course based on critical thinking principles. All eight items presented in the section describing a paradigm for use of CT concepts in marketing education were considered throughout the course. Once again, there is no right way to organize critical thinking oriented classes, only important suggestions for educators to keep in mind. As Schibrowsky, Peltier, and Boyt (2002) stated, critical thinking skills should be taught and practiced in marketing education. The student-driven syllabus is simply one way to successfully apply CT principles.

Although there is risk involved in relinquishing some control and often more work for the educator, as it was in this instance, the benefits for students and professor outweigh the problems. The students

maintained their original enthusiasm and dedication to learning in the class throughout the semester. As the results showed, their level of satisfaction was high. Overall, the student-drive syllabus proved to be an effective outlet to encourage and stimulate critical thinking.

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