A Model of the Use of Cinema in Business Pedagogy ©

Catherine E. N. Giunta, Seton Hill University

ABSTRACT

Management practitioners continue to challenge higher education business programs to prepare students for immediate application of competencies required for success. This paper/exploratory analysis presents a model for enhancing the use of film as a tool in business pedagogy. This model includes an instrument for determination of student perceptions of the efficacy of the use of feature film to teach business competencies. Therefore, this work considers student perceptions of the uses of film in undergraduate and graduate business education. Additionally, it compares the perceptions of undergraduate male and female students to their graduate counterparts. Awareness of students' views of this tool can be valuable information during the design of business curriculum. To date, little research has coupled the business students' perceptions of film in business curriculum along with implementation of feature films in business pedagogy. Therefore, the development of this model aims to contribute to the understanding of students' expectations when film is used in business curriculum.

INTRODUCTION AND LITERATURE REVIEW

Films provide an opportunity to increase student understanding of and engagement in business concepts. Gabriel (1998) states that films can create interest, stimulate discussion and encourage enquiry when they are used effectively. "Research in management (e.g., Tanyel, Mitchell and McAlum, 1999), … marketing (e.g., Celuch and Slama, 1999), finance (Tanner and Cudd, 1999) …. has focused on developing more effective ways to add value to today's business students by better preparing them for the challenges they will face upon entering the workforce. While some improvement will result by adapting topical coverage in the various disciplines, teaching methodologies also need to evolve in order to provide students with the skills necessary for success…. Engaging in mindful behavior is not simply an attempt to make the best choice from among available options, but to create options"(Brody, Coulter, 2002,para 1,3, 26). By viewing and discussing actions presented in relevant movies, business students can analyze the situation presented and prepare possible extrapolations to real-world situations. "Trainers in all industries are turning to the timeless art of storytelling to drive home difficult or complex points about leadership, vision, teamwork, and customer service" (Carley, 1999). Academia can do the same as corporate trainers.

Serey (1992) says that students prefer to use visual imagery to understand concepts rather than the more traditional passive learning or lecture-oriented learning approaches…The instructor must be certain to stress that the video is to be used as a learning experience, not as strictly entertainment…In addition, the instructor should also emphasize that the scenarios in videos are highly dramatized and characters are highly emotional. Hence, students should be

advised not to take the dramatized environments as real portraits of the business world." Given that caution, the planned use of film as a pedagogical tool can be incorporated into the curriculum as a viable vehicle for business learning.

Use of Cinema in Business Curriculum

The professor who initiated this research uses cinema as a pedagogical tool in business classes. In one undergraduate course students complete an analytical paper that assesses how various movies reflect the American cultural norms in the workplace. Through this assignment students learn to synthesize course readings and lecture with selected films' concepts. Students comment that this experience changes their perspective of the messages conveyed through cinema and the stereotypes about the workplace that may be perpetuated through misrepresentation in films.

For one undergraduate course students are permitted to offer three of their choices for films. Students are given a list of films that cannot be used for the project. The students' proposed choices must be approved by the professor. Students are cautioned that movie selections must be appropriate for a serious, academic assignment. There is no duplication of movie topics in any semester. If the professor believes movies proposed are too informal, and/not of the type to move the student to a higher, new level of learning, she will require the student to re-submit proposals. If necessary, the professor will meet individually with students to provide additional guidance for the selection process.

In another capstone business course, students observed clips from *Wall Street* to discuss ethical issues and concerns for young business professionals. Undergraduates from the millennial generation, who have read and observed many real-life business scandals unfold, can be jaded to the legal and moral consequences of such behavior. Viewing the scene in which the young, lead character is arrested and hand-cuffed in front of his peers presents the reality of the consequences of non-compliance with laws and regulations. Those students also observed clips from *Pursuit of Happyness* to analyze the challenges of workloads, time management, and family concerns.

In a graduate course, students have used a couple different films to analyze leadership styles and other management concepts and principles. One of these, Crimson Tide, is particularly effective in portraying these issues. In order to prepare students for an intense, focused learning experience, a detailed question sheet is distributed before they view the film. (Portions of this preparatory sheet can be found in Appendix B.) In this way, students' thinking encompasses lecture, course material as the film unfolds. The questions lead to detailed, effective substantive discussions. This exercise has proven to be very effective in using fictitious events to lead students to thought-provoking talks about actual situations they have encountered and how the course's content can lead to improved decision making in the future.

In undergraduate and graduate curriculum, the use of fictional works in classes can be supplemented by the use of documentaries, new broadcasts, and other relevant, interactive media. The students have commented positively that the use of that medium provides an opportunity to reflect and discuss the ramifications of serious decisions by contemporary business characters.

These activities enhance the students' analytical and synthesizing capabilities in alignment with Blooms Taxonomy. Based upon the instructor's knowledge base and the course's learning objectives, films used in the curriculum can be set in the United States or other countries. The workplace should be a dominant setting or theme in any selection. Additionally,

the use of film captures the interest of students who are increasingly multi-media, visually-oriented learners.

Student perceptions

In conjunction with the belief in the use of film as a business pedagogical tool, this study questioned if students perceive the relevance of film for their studies. This study utilizes student views as a valuable source of information regarding the use of film as part of business education. Student perceptions are valid pieces of information in the assessment of different elements of their educational curriculum (Ozan, Karademir, Gursel, Taskiran, Musal, 2005; DeVita, 2004). It has been stated that when making significant changes to curriculum design and implementation, the perceptions of students in the planning stages is beneficial so as to prevent concerns. Once a program is in-place modifications can be made based upon student perceptions (DeMoranville, Aurand, Gordon, 2000). This appears to support Forrester-Jones (2003) who highlights that students are considered consumers of their education as well as participants and contributors to the learning process. The results of this study demonstrate that student feedback can be incorporated into curricular planning.

RESEARCH METHODOLOGY

This study was a work which ascertained "what is" through research questions that asked the sample what their perceptions are of management competencies that can be taught via motion pictures. This research aims to seek answers to the question, "What management competencies and issues that you perceive can be taught though movies?" This information could help to identify concepts, provide different information that would not be gained in a purely qualitative study, and therefore provide a different perspective (Tashakkori and Teddlie, Eds, 2003, p. 192). Surveys for a fixed quantitative sampling design mechanism typically use a standardized form from a relatively large number of participants. Completion time can be relatively fast, so data collection can occur smoothly. This can be done in person, through written material, or through electronic Internet/Intranet methods (Cooper and Schindler, 2003). This study utilized in-person, written material. (Please see Exhibit I.) Descriptive statistics were utilized to further analyze the results of this project as a learning tool.

Sample

The non-probability sample consisted of 163 business students enrolled in management courses from a small, liberal arts university in the United States. This group consisted of 49 graduate females, 39 graduate males, 44 undergraduate females and 31 undergraduate males. A questionnaire using interval data was developed for the research. Participants were to check any of a series of management competencies from a list that they perceived as relevant for films used in business education. There was one space for the participants to add any competencies believed to be pertinent but not on the list. Survey questions were reviewed and revised by a small focus group. During data analysis, deductive reasoning and statistical analysis will occur. It used a quantitative questionnaire approach combined with four open-ended questions to elicit additional information about students' prior experience with feature films in business education.

Data Collection and aggregation process

A questionnaire was developed asking students' their prior experience with the use of film in business curriculum, asking them to check the management competencies and issues that they perceive can be taught though movies (Certo, Certo, Trevis, 2006; Hodgetts, Karatcko, 2001), and an open question of how the students thought this medium could be relevant in business education. The exploratory process was two-fold. First, students were asked to complete the questionnaire that included a checklist of key management competencies. No time constraints were given. Data was collected for each participant's survey. No information was given to the respondents on their role prior to the completion of the questionnaire. Students' responses were tallied according to the management competencies as to whether each respondent did or did not check that element as relevant to business education. Each individual management competency was then analyzed for students' responses. The data was further drilled to compare undergraduate and gradate students for each management competency. Additionally, the results were analyzed by gender and undergraduate student responses were compared with graduate students' responses. This categorization facilitated analysis of student perceptions by sub-groups as well as aggregate groups.

For further analysis, the film Crimson Tide was assigned to the graduate students in a Human Resource Development course. A discussion guide sheet (Excerpts are found in Appendix 1.) was distributed prior to the student viewing to focus their thoughts on issues relevant to the course material. After the students watched the film, a discussion of the major learning points ensued. Finally, to ascertain which of the management competencies were taught through the movie, the students were asked to complete a follow-up survey that mirrored the initial questionnaire.

Data Display Methods

Coding is necessary for mixed methodology data display. It is important that coding adheres to the following rules: that it is appropriate to the research problem and purpose; it is exhaustive; it is mutually exclusive; and is it is derived from one classification principle. Closed questions may be used more in quantitative research, but in any case, a pre-coding may be beneficial. It is useful to code these to facilitate content analysis. This may be done to code the information in one of four approaches. These are syntactical, referential, propositional, and thematic (Cooper and Schindler, 2003, pp.456-461). Statistical analysis can include a number of different models including univariate analysis. This would correspond to confirmatory data analysis (CDA), which is very appropriate for fixed design research.

Data Analysis Techniques

Maxwell and Loomis (cited in Tashakkori and Teddlie, Eds, 2003) clarify that the quantitative aspect of mixed methodology implements variance theory by precisely measuring differences or correlations between variables. With this approach, categorical (Maxwell and Loomis, p. 249) data has to be reduced for descriptive summary, and statistics. It is then displayed. Conclusions can be developed by using influential statistics, tests of significance, and so on. Techniques are structured and largely non-contentious.

Analysis and results

To gain insight into perceptions of students in regards to each of the management competencies and issues, the data was analyzed for the main sample and the chosen sub-groups for each individual competency variable. The management competencies and issues listed in the survey included the following:
Planning processes
The need for organizational skills
Influencing and directing employees
Influencing customers
Marketing issues
Managing financial constraints
Maintaining and monitoring performance
Maintaining ethical concerns
Implementing Catholic Social Teaching principles
Issues impacting small and/or entrepreneurial businesses
Gender-related issues
Immigration considerations
Power development and usage.

The sample of students was sub-divided into graduate and undergraduate sub-groups, and female and male sub-groups.

Top Rated Criteria

Most students rated five variables as most appropriate for learning through film. Those competencies were: maintaining ethical concerns, gender-related issues, influencing and directing employees, influencing customers, and marketing issues. (Please see Exhibit 1.)

Exhibit 1: Major Ratings: All Students
1= Gender-related Issues
1= Maintaining Ethical Concerns
3= Influencing and directing employees
4= Influencing customers
5= Marketing issues

A different view between the sample groups' top five criteria developed during the analysis of the data. The mean and the variance for the top five variables, as rated by all participants, were very significant. (See Exhibit 2 below.) This appears to indicate that, whereas the participants, as one group, differed to a significant level about the importance of the five criteria in terms of relevance to business education, the participants' responses also varied enough to indicate that they were not seen as relatively the same level of possible application to business pedagogy.

Exhibit 2: Top 5 Criteria, all Students	
Descriptive Statistical Test	Top 5 Criteria
Mean (F)	14.59698***
Variance: Levene	117.1257***

Significance: *$p \leq 0.05$; **$p \leq 0.001$, ***$p \leq 0.0001$

When the data was drilled deeper, there was no significance regarding the top three rated criteria. (See Exhibit 3 below.) This can indicate a near equal perception of the application of these criteria by the entire group. Correspondingly, any variation between the top three ratings did not seem to indicate a different perception of their importance.

Exhibit 3: Top 3 Criteria, all Students	
Descriptive Statistical Test	Top 3 Criteria
Mean (F)	0.049617
Variance: Levene	0.195794

Significance: *$p \leq 0.05$; **$p \leq 0.001$, ***$p \leq 0.0001$

Differences by Academic Level

The ratings for each of these did vary between the graduate and the undergraduate group. (See Exhibit 4 below.) Although all of the competencies were rated in the top five, the ordering of those Variables differed. The graduate group rated maintaining ethical concerns as most relevant. This may be because they have a course in Ethical and Legal Issues, and because, since most of these are working adults, they are sensitive to the heightened corporate awareness of this concern. The undergraduate sub-group may have listed gender issues most important because many of them have taken a course in Gender Issues in the Workplace. Additionally, the undergraduate liberal arts curriculum contains at least one module within a course on that topic. Also, given the media's coverage of gender-disparities, the undergraduates may be sensitized to how those issues may influence them in their future career endeavors.

Exhibit 4:Major Ratings by Academic Level	
Graduate students	Undergraduate students
1=Maintaining Ethical Concerns	1=Gender-related issues
2=Influencing and directing employ	2=Influencing and directing employees
3=Marketing issues	3=Maintaining Ethical Concerns
4=Influencing customers	4=Influencing customers
5= Gender-related issues	5= Marketing issues

The results indicated that the mean and the variance of responses to the question were statistically significant. This revealed that there was a perceived wide variation of which management competencies in feature films are perceived as relevant for business education. Since this result was at the p≤0.0001 level, it can be concluded that students at different academic levels envision different potential applications of management competencies through the use of motion pictures in business pedagogy. Additionally, the undergraduate sub-group and the graduate sub-group revealed statistically significant differences of responses to the question within their sub-groupings (See Exhibit 5).

Exhibit 5: Undergraduate and Graduate Comparisons			
Descriptive Statistical Test	All Undergrad and Grad Students, COMPARED UNDERGRAD TO GRAD All Variables	Graduate All Variables	Undergraduate All Variables
Mean (F te	10.2528***	13.18839***	7.966477***
Variance (Levene)	19.44255***	18.94067***	24.96631***

Significance: *p≤0.05; **p≤0.001, ***p≤0.0001

Interestingly, the undergraduates' top five criteria ratings' mean was statistically significant and the variance was very significant. The mean for the graduate sub-group was not significant. It appears that the group did not differ significantly regarding the relevance of the top five criteria. Any variation, though, that existed within the sample was significant. The differences between the undergraduate as compared to the graduate group was significant. Therefore, the variation of ratings did appear to show different views by the sub-groups. (Please see Exhibit 6 below.)

Exhibit 6: Ratings Significance			
Descriptive Statistical Test	ALL Undergrad TOP 5 RATINGS	ALL Graduate TOP 5 RATINGS	Undergraduate Top 5 Ratings compared to Graduate Top 5 Ratings
Mean	2.466667* (F test)	0.999128 (F test)	1.535166 (F test) 1.85713* (Welch F-test, allowing for unequal cell variances)
Variance (Levene)	12.2885***	4.753631***	7.472683***

Significance: *$p \leq 0.05$; **$p \leq 0.001$, ***$p \leq 0.0001$

Gender Differences

Furthermore, gender differences were displayed. The results indicated that graduate females rated influencing and directing employees, maintaining ethical concerns, influencing customers, marketing issue, and organizational skills as most relevant for education through film. Male graduate students rated maintaining ethical concerns, marketing issues, influencing customers, influencing and directing employees, and gender-related issues as most relevant for education through film. The results indicated that undergraduate females rated gender-related issues, influencing and directing employees, maintaining ethical concerns, influencing customers, and marketing issues as most relevant for education through film. (See Exhibit 7 below.)

Exhibit 7: Graduate Major Ratings	
Female students	Male students
1= Influencing and directing empl	1= Maintaining Ethical Concerns
1= Maintaining Ethical Concerns	2= Marketing issues
3= Influencing customers	3= Influencing customers
4= Marketing issues	4=Influencing and directing employees
5= Organizational Skills	5= Gender-related issues

Male undergraduate students rated gender-related issues, influencing and directing employees, organizational skills, the planning process, and influencing customers and maintaining ethical concerns as most relevant for education through film. This suggests that respondents within these sub-samples differed significantly in their perceptions of which management competencies and issues could be taught via film as an educational tool. (See Exhibit 8.)

Exhibit 8:Undergraduate Major Ratings	
Female students	Male students
1= Gender-related issues	1= Gender-related issues
2=Influencing and directing emplo	1= Influencing and directing employees
2= Maintaining Ethical Concerns	3=Organizational Skills
4=Influencing customers	4=Planning Process
5= Marketing issues	5= Influencing Customers; (rank tied) Maintaining Ethical Concerns

The variance of responses for graduate males was also statistically significant, indicating that there was a wide variation of answers given to the research question about the relevance of management competencies and issues. (See Exhibit 9.)

Exhibit 9: Gender Comparisons		
Descriptive Statistical Test	Graduate Female compared to Male, all variables	Undergrad Students Female to Male Results all variables
Mean	7.096373*** (f test)	4.337232***
Variance	10.85145*** (Levene)	11.30601*** (Levene)

Significance: *p≤0.05; **p≤0.001, ***p≤0.0001

This analysis shows the significant responses to the major research questions. The significance at 10%, 5%, and 1% respectively, are indicated when relevant.

Post-Survey

Additional analysis was done with selected students who completed a post-survey as well as the initial questionnaire in a Human Resource Development course. In the second follow-up survey with graduate students, they distinguished a number of business competencies that were taught in the Crimson Tide (1995) movie. This Denzel Washington, Gene Hackman drama is useful to teach leadership, team work and power development issues. Students were assigned to watch the film, using a set of reflection questions as their guide. (See Appendix.) These assigned questions included correlations to class texts and required students to implement higher elements of Bloom's Taxonomy, in particular analysis and synthesis. For all graduate students, the competencies of influencing and directing employees was the dominant competency taught by this film. That rating was followed by power development and usage, and maintaining ethical considerations. For female graduate students, the competencies of influencing and directing employees, and power development and usage were the dominant applications for business education. For male graduate students, influencing and directing employees, maintaining and monitoring performance, and maintaining ethical considerations were the dominant rated competencies.

CONCLUSIONS AND RECOMMENDATIONS

Overall, students in business courses perceive the relevance of film as a medium for teaching various management competencies. Except for graduate female students, other students believed that most management competencies could be taught through film. (Female students perceived that half of the key management variables listed could be taught through this medium.) This demonstrates that there is receptivity by students to learn business concepts with the use of movies as a tool. As business faculty study various ways to interact with students and to enliven the classroom, films can be considered as a viable technique. Additionally, the realism of films can facilitate moving concepts that may be viewed by students as purely theoretical into

the realm of a possibility. This is an opportunity for business professors to engage students in their learning through a deliberate development of curriculum that focuses on particular business topics and selects appropriate films to model that learning. The use of films in business curriculum offers the opportunity for lively discussion and debate regarding the implementation of business principles.

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APPENDIX

Appendix A

Business in Movies Questionnaire
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Administrative questions

What is your name?_____
Academic level: (Undergraduate, year; graduate program):_____

Female___ Male___

Research Questions

1. Have you been in Business courses that use popular, classic and documentary movies to educate about management competencies/issues and practices?
          _____Yes   ____No

    a. If yes, please list the course(s), when it was taken, the films used, and the management competencies and issues taught.
_____
    b. If no, please list what you perceive could be gained by using movies in Business course(s).
_____
_____

2. Check the management competencies and issues that you perceive can be taught though movies. (Please check all that apply.)
    ___Planning processes
    ___The need for organizational skills
    ___Influencing and directing employees
    ___Influencing customers
    ___Marketing issues
    ___Managing financial constraints
    ___Maintaining and monitoring performance
    ___Maintaining ethical concerns
    ___Implementing Catholic Social Teaching principles
    ___Issues impacting small and/or entrepreneurial businesses
    ___Gender-related issues
    ___Immigration considerations
    ___Power development and usage
    ___Other: Please list:
_____
_____

(4) Please list popular, classic, and documentary movies that you perceive as having relevance to management issues and the corresponding management competencies and issues:
    MOVIE: RELEVANT MANAGEMENT COMPETENCIES/ ISSUE(S):
    _____
    _____
    _____
    _____

Appendix B

Crimson Tide (1995)

This Denzel Washington, Gene Hackman drama is useful to teach leadership, team work and power development issues. Students are assigned to watch the film, using a set of reflection questions as their guide. These questions include correlations to class texts and requires students to implement higher elements of Bloom's Taxonomy, in particular analysis and synthesis. These thought-provoking issues include the following.

1. How would you categorize each main leader in the film? Compare and contrast the two main leaders' actions.
2. Compare and contrast how each of the two leaders did or did not generate trust and loyalty within their subordinates.
3. Categorize the film's main leaders are solo or team leaders. Substantiate your opinions with examples.
4. How did the USS Alabama's crew move through Schein's three-stage model of the change process?
5. Which of the four major types of Organization Development interventions were implemented throughout the film? Include the subcategories for these types in your analysis.
6. Describe the U.S.S. Alabama's culture. Explain, with examples, how it impacts upon the Human Resource Development (HRD) actions within this ship.
7. Describe a SWOT analysis for the U.S.S. Alabama's HRD activities. Once this is complete, what HRD suggestions do you have to offer the officers of this movie. In the DVD, how did and how might the leaders have used coaching and mentoring to help increase performance among group members at work? How does their coaching correspond to the Helgesen (2001) statement that "The advent of the new economy begins to reverse the traditional balance of power away from organizations and toward individuals" (p.255)?
8. From the Harvard Business Review reading, use the "Knowing What to Look for—and How to Find It" list, and select five elements that you believe are especially significant given the events and leaders of the U.S.S. Alabama. Relate this to current business examples.
9. (A)What does goal theory tell you about the dealings of this movie's leaders and "managers" about using goals to motivate people? How would this facilitate, what Helgesen (2001) refers to the "inner commitment" reflected by a powerful personal branding (p.205). (B) How did this affect the employee development and commitment on the U.S.S. Alabama?