Gender Equality for Learning Leadership in Undergraduate Business Schools

Dr. Sabra E. Brock

Abstract

Some scholars suggest that business schools are failing the challenge of providing 21st century skills and in particular, they are failing women. As a conceptual model of how people can better adapt to change, the lens of transformational learning was used to shed light on whether women are at a disadvantage to men in transformational learning when exposed to the same experiences at undergraduate business school. Transformational learning occurs when a student’s worldview is challenged and when the learner moves beyond old assumptions to see things in a new way. In this quantitative study of 256 undergraduate business students, women experienced comparable rates of transformational learning to their male counterparts and reported experiencing the same learning stimuli in personal relations, class room activities, and life events. It would appear that when exposed to the same stimuli, female undergraduate students are not at a disadvantage to male undergraduate students in learning how to be business leaders through transformational learning.

Key words: Undergraduates, Business Schools, Transformational Learning, Women’s Learning

Introduction

The face of the business school is changing, reflecting changes in both education and the workforce, notably in technology, global reach and the proportion of women (Jarvis, 2006). Business school graduates are future professionals and organization managers; in these roles they will have to “adapt to changing work environments and demands” (O’Connor, Bronner, & Delaney, 2002, p. 5) in a workplace where both men and women are nearly equally represented (Wellington, 2001).

Business school, the traditional means of preparation for a leadership role in a business career, reflects an increased proportion of women (Merritt, 2004). Women now account for nearly a majority of undergraduate business major graduates, up from 48.6% in 1998 to 49.2% in 2007 (Planty, et al., 2009). Some writers have suggested that the nearly equal balance of men and women in undergraduate business schools may be a more positive environment for teaching 21st century business leadership skills than a predominance of either because it better emulates the workplace (Tanton, 1992; Lewis & Fagenson, 1995). Transformational learning has been shown to be an effective component of leadership among teachers (Harris, Lowery-Moore, & Farrow, 2008), in the operating room (McNaron, 2009), and in executive education (Ciporen, 2009).

Undergraduate college students have been found to demonstrate gender differences in learning styles with women more likely to display listening behaviors and value peers as collaborators, while men show an active approach to learning and to use peers for testing achievement, but these differences may diminish with maturity (Baxter Magolda, 1992). However, women in mid-career have shown more receptivity to learning elements such as talk and reflection (Carter, 2002) and females, in general, may benefit from more social support than males (Taylor, Klein, Lewis, Gruenwald, Gurung, & Updegraff, 2000). Undergraduate female students have also indicated less receptivity to learning through competitive activities (Gneezy, Niederle, & Rustichini, 2003), making competition a negative factor insofar as workplace promotion is based on competition (Schrage, 2008), and women tend to benefit from a more cooperative atmosphere (Mason, 2009).

Students expect that investment in a business school education will change the way they look at the world, as well as provide the specific capabilities demanded for leadership in an increasingly complex and changing workplace (Gammie, 1994). At the same time, the workplace calls on business education to provide capabilities once thought to be more characteristic of women such as teamwork and collaboration (Buttner, 2001; Gardner & Korth, 1998; Tschannen-Moran, Uline, Woolfolk Hoy, & Mackley, 2000), relationship building (Gersick, Bartunek, & Dutton, 2000; Rojewski, 2002), as well as communication skills (Whetton & Cameron, 2006).

Some scholars have indicated that business schools are failing the challenge of providing 21st century skills (Pfeffer & Fong, 2001; Vinten, 2000), especially in improving interpersonal ability and communication skills (Pfeffer & Fong, 2001), and in particular failing women (Bilimoria, 1999; Bilimoria, Joy, & Liang, 2008; Mavin & Bryans, 1999). Specifically, females are disadvantaged at organizational, faculty, and curricular levels of business schools: (a) an organizational structure that may inculcate habits and practices of inequality like the unconscious
expectation that males are student council presidents, the assumption of the gendered vocabulary of business, and the belief that equality has been achieved (Cavanaugh, 2000); (b) systemic discrimination, artificial performance criteria, and stereotyping for female faculty (Orser, 1992); and (c) curricular gaps like the low number of women represented in case studies and few readings by female authors (Bilimoria, 1999).

To study whether women are still disadvantaged in undergraduate business schools, a particularly promising thread to follow is transformational learning, defined as a theoretical description of the steps learners undergo in changing their world views (Mezirow, 1985). From the educator’s perspective, transformational learning occurs when a learner is struck by a new concept or way of thinking and then follows through by making a life change; it can supplement more common types of learning such as acquiring facts or learning new skills (Cranton, 2006). Numerous learning activities that foster transformational learning have been researched, including personal support activities, classroom assignments, and life events (Choy, 2009; King, 2000; Merriam & Ntseane, 2008; Meyers, 2008; Taylor E., 2008). Differences in transformational learning between men and women have been reported among traditional-aged college students in qualitative research (Harris, 2002; Taylor E., 1997). However, Mezirow, the father of transformational learning, never studied gender differences in transformational learning and expressed interest in research pursuing a quantitative measurement of possible gender differences in transformational learning (personal communication February 7, 2006).

Curricula designed to maximize transformational learning may help undergraduate business students adjust more readily to a fast-changing workplace (Wills, 2001). Transformational learning theory may shed light on how business schools can adapt to serve these needs in the context of a nearly proportional percentage of male and female students (Planty, et al., 2009). Therefore, quantitative research was undertaken surveying students, using an instrument validated to measure transformational learning (King, 1998).

Research Questions

1. What is the relationship of gender and the report of transformational learning in undergraduate business school?
2. Do male and female undergraduate business school students indicate having the same types of learning experiences?
3. Among those reporting transformational learning, what is the relationship between exposure to different types of learning experiences and gender?

Method

This study was conducted during Fall, 2005. The population was undergraduates in a large northeastern United States business school. The school has an urban campus located in a large metropolitan area. The school itself is ranked in the top 10 undergraduate business schools in the United States (Lavalle, Gerdes, Jespersen, Gloeckler, & Symonds, 2006).

The study included a survey delivered via a web site. It had 16 questions, covering closed-end questions about 28 different learning activities found in business school, and included
two open-ended questions asking those who reported transformational learning to describe the experience. The Dean of the Undergraduate Business School recruited students to participate in four editions of the school’s e-newsletter over the fall semester. Women, Asians, and freshman responded at higher rates than their representation in the population. These factors place limitations on the use of the study findings because these segments may not represent the population’s behaviors and attitudes. However, weighting was performed to balance the sample to their real proportions in the population, and no significant changes in study results were found.

The incidence of transformational learning was measured by a “yes” answer to the survey question: “Since you have been taking courses at this institution, do you believe you have experienced a situation when you realized that your values, beliefs, opinions or expectations had changed?” Positive answers were edited out if the open-ended descriptions of the experience did not confirm to the definition of transformational learning found in the literature.

Findings

A key focus was to examine whether and how students experienced transformational learning in undergraduate business school. The primary research question was, “What is the relationship of the respondent’s gender and the report of transformational learning in undergraduate business school?” A one-tailed Chi-square test was used to examine possible differences in reported incidences of transformational learning between the two genders in this undergraduate business school. Since previous research indicated that women may be disadvantaged in business school (Bilimoria, 1999; Cavanaugh, 2000; Mavin & Bryans, 1999), a one-tailed test was used, predicting lower incidence of transformational learning among women.

The outcome of the significance testing was a Chi-square value of <.001 and an associated non-significant p of .493. This result suggests that for Research Question 1 there were no meaningful differences between male and female undergraduate business students in reported incidence of transformational learning in this study. The observed difference was only one percentage point with men reporting transformational learning at the 49.5% rate and women at the 48.5% rate. Prior research had raised questions as to whether female students may be at a disadvantage in the business school structure (Bilimoria, 1999; Cavanaugh, 2000; Mavin & Bryans, 1999; Orser, 1992). Another study (King, 2000) had shown no significant difference in the incidence of reported transformational learning between the two genders in evening college classes in her more holistic study.

The second research question asked, “Do male and female undergraduate business school students indicate experiencing the same types of learning experiences?” Two-tailed Chi-square tests were applied to each of the 28 different types of learning experiences drawn from the literature as fostering transformational learning or being characteristics of undergraduate business school curricula. Examples of these learning experiences are shown in Table 1. The results of the testing showed no significant differences in the exposure to these experiences between men and women. T-tests were used to measure whether the variety of experiences were significantly different for male and female students. It was not, with a mean for males of 10.6 different types of learning activities and for females 10.2. In this school, male and female
students appeared to experience similar learning environments with regard to class assignments, personal support activities, and life events.

A third research question posed was, “Among those reporting transformational learning, what is the relationship between exposure to different types of learning experiences and gender?” To answer this question, two-tailed Chi-square testing between gender and the learning activities reported influencing transformational learning was conducted among respondents indicating transformational learning. Three categories of learning activity types, class assignments, personal support, and life events, were examined. More complete descriptions of types of learning activities are shown in Tables 1 and 2.

To investigate a different relationship in learning activities to the report of transformational learning between genders, a two-tailed Chi-square testing was conducted, first among the types of learning activities classified as class assignments. The statistical testing showed no significant relationships between the report of transformational learning and gender for the type of class assignments except for “writing about concerns.” Table 1 shows that men were significantly ($\alpha = .05$) more likely to say that writing about their concerns fostered transformational learning more than were women. One-tailed significance testing produced the same results.

Table 1

| Relationship of Influential Classroom Assignments to Transformational Learning by Gender |
|---------------------------------|--------|--------|--------|---|
| Total = reported transformational learning | Men n = 46 | Women n = 78 | Chi-square (with Yates correction) | p |
| Class activity/exercise | 31.1 | 40.0 | .719 | .338 |
| Writing about concerns | 20.0† | 8.8 | 7.942 | .019* |
| Personal reflection | 15.6 | 25.0 | .650 | .361 |
| Verbally discussing concerns | 13.3 | 16.3 | .001 | .999 |
| Internship | 13.3 | 10.0 | .499 | .324 |
| Assigned readings | 11.8 | 13.8 | .001 | .999 |
| Term paper/essay | 11.1 | 18.8 | 2.914 | .233 |
| Class activity/exercise | 11.1 | 15.0 | .001 | .999 |
| Deep, concentrated thought | 8.9 | 21.8 | 1.676 | .129 |
| Prior learning assessment | 8.9 | 7.5 | .031 | .709 |
| Self-evaluation | 4.4 | 8.8 | .119 | .698 |
| Case study | 2.2 | 1.3 | .001 | .999 |
| Lab | 2.2 | 1.3 | .001 | .999 |
| Other class assignments | 8.9 | 2.5 | 2.050 | .080 |

*Difference significant at .05 in two-tailed Chi-square test; phi = .413

No significant differences existed between genders in the personal support activities or life events reported influencing transformational learning shown in Table 2.
Table 2

Relationship of Influential Personal Support Activities to Transformational Learning by Gender

<table>
<thead>
<tr>
<th>Support Activities:</th>
<th>Total = reported transformational learning</th>
<th>Men n = 45</th>
<th>Women n = 80</th>
<th>Chi-square (with Yates correction)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any personal influencer</td>
<td>n = 45</td>
<td>46.7</td>
<td>37.5</td>
<td>.658</td>
<td>.347</td>
</tr>
<tr>
<td>Support of classmate</td>
<td>n = 80</td>
<td>17.8</td>
<td>17.5</td>
<td>.211</td>
<td>.573</td>
</tr>
<tr>
<td>Support of other student</td>
<td>n = 80</td>
<td>26.7</td>
<td>25.0</td>
<td>.117</td>
<td>.555</td>
</tr>
<tr>
<td>Teacher’s challenge</td>
<td>n = 80</td>
<td>17.8</td>
<td>12.5</td>
<td>.001</td>
<td>.999</td>
</tr>
<tr>
<td>Teacher’s support</td>
<td>n = 80</td>
<td>13.3</td>
<td>10.0</td>
<td>.001</td>
<td>.999</td>
</tr>
<tr>
<td>Support of advisor</td>
<td>n = 80</td>
<td>4.4</td>
<td>2.5</td>
<td>.001</td>
<td>.999</td>
</tr>
<tr>
<td>Any life event</td>
<td>n = 80</td>
<td>33.3</td>
<td>33.7</td>
<td>.001</td>
<td>.999</td>
</tr>
<tr>
<td>Moving</td>
<td>n = 80</td>
<td>22.2</td>
<td>25.0</td>
<td>.023</td>
<td>.726</td>
</tr>
<tr>
<td>Death of loved one</td>
<td>n = 80</td>
<td>2.2</td>
<td>3.8</td>
<td>.001</td>
<td>.999</td>
</tr>
<tr>
<td>Parent job change</td>
<td>n = 80</td>
<td>2.2</td>
<td>2.5</td>
<td>.001</td>
<td>.999</td>
</tr>
<tr>
<td>Marriage</td>
<td>n = 80</td>
<td>2.2</td>
<td>0.0</td>
<td>.080</td>
<td>.366</td>
</tr>
<tr>
<td>Birth</td>
<td>n = 80</td>
<td>2.2</td>
<td>0.0</td>
<td>.091</td>
<td>.357</td>
</tr>
<tr>
<td>Parent job loss</td>
<td>n = 80</td>
<td>2.2</td>
<td>0.0</td>
<td>.080</td>
<td>.366</td>
</tr>
<tr>
<td>Parent retirement</td>
<td>n = 80</td>
<td>2.2</td>
<td>0.0</td>
<td>.091</td>
<td>.357</td>
</tr>
<tr>
<td>Other life event</td>
<td>n = 80</td>
<td>11.1</td>
<td>10.0</td>
<td>.001</td>
<td>.999</td>
</tr>
</tbody>
</table>

Additional statistical analysis to answer Research Question 3 was done via two t-tests to determine the relationship of the incidence of transformational learning and the varieties of different types learning activities reported by both men and women. Table 3 displays the results of this analysis.

Table 3

Differences in Variety of Learning Activities Reported by Gender

Base = 125 who reported transformational learning
There was no significant difference between men and women in the overall variety of learning activities with men having $\bar{X}$ of 12.22 (SD=7.11) and women $\bar{X}$ of 10.90 (SD=4.45). The type 1 error $\alpha$ was .20, outside the .05 set as necessary for statistical significance.

**Conclusions**

Male and female undergraduates who participated in this study reported remarkably similar experiences of transformational learning. This level of reported transformational learning in this study, 48.8%, is midway between the only two other reported incidences of transformational learning found in the literature, 32.5% (King, 1997) and the other indicated as “high,” 66.8% (King, 2000). King had observed a higher incidence of reported transformational learning among students who had recently moved to a new place and hypothesized they were more open to new experiences (King, 2000). Thus, the reported transformational learning was fairly high for both genders, so it is possible that the women in this respondent base had similar motivations and learning experiences to those of men, for example, in having moved to this large city to attend school.

Therefore, it appears that this school provided personal and curricular support that both men and women found useful for transformational learning. It may also be argued that college is an extraordinary time of openness in one’s life for both men and women, and the female students in the current study seemed to be open to experience transformational learning at the same rate as their male counterparts, especially given similar exposures to the learning activities that foster transformational learning.

Among the personal support activities and life events thought to provide a positive learning environment, both genders reported no significant difference in exposure in this study. It may be that a low acceptance rate allows this school to select both males and females who are similar in transformational life experiences and once at the college, open to the personal support activities important to transformational learning.

Where transformational learning was reported, the only exception to having positive significant differences between genders was males mentioned writing about their concerns in connection with reporting transformational learning more often. However, since this is the only
of 15 classroom assignments (and 28 learning activities) found to be more important for one gender than the other, it is attributed to chance, rather than a real relationship. There was a possibility that the finding may be related to the greater need for late teen-aged boys to assert their identities (Younger & Warrington, 2005), but their study was not designed to measure that connection. Also, there was no other support found in the literature to indicate that writing about concerns should impact transformational learning more in men than women. If anything, studies have shown women more receptive to use of writing as a learning technique (Howard, 2000).

The responses to open-ended questions in this study gave some possible explanation of the difference in response to competition between men and women found by other researchers (Gneezy, Niederle, & Rustichini, 2003). These answers seemed to indicate men may be more used to thriving on competition, whereas women need to contextualize competition to see it as a positive. For example, one male student said that this school “is fierce in competition and constantly moves me to forward. In this atmosphere, one is more future-driven than before.” Or as another young man said, “I realized that if it were not for the competitive nature of the school and the city, I would not have been as motivated in my studies... I have adopted a more serious tone in all aspects of my life.” Another young male student said that with competition, “I began to see that I needed to raise my expectations and work much harder than I ever have before.” Another combined friendship and competitiveness, “My friends in [this school] are all hard-working and smart; so, I feel like I am competing with them. This has improved my skills and perspective.”

While many of the female students reported a positive reaction to competition, they appeared to have expanded definitions of what competition is. For example, one woman said, “This is a mature, thought-provoking setting in which we are all hammered by different presences. Diversity in thoughts provided me with the motivation to change and be open-minded.” Another female student said more simply, “I was put in a place with high achievers and this influenced me to raise my own expectations.” Another young woman was perhaps more typical of other female students in her openness, “I knew coming to college means exposing myself to a myriad of ideas. I'm fine with that and I'm willing to change if I find the new ideas more applicable and convincing.” Some female students just observed competitiveness as part of the environment, saying this school is “very fast paced (as is [this city]) as well as competitive and there are the students [who] have very strong character, including the women.” Another said, “Each person is for himself in school. No one will look after you. I must take responsibility to organize my academic time, social time, and relaxing time.” And another, “I realized that starting now, I need to be more responsible and dedicate more time to what should be my higher priorities to help me prepare for the future.” Women may process competition differently than men, adding a frame of reference, whereas men appear to “main line” it. When planning classroom activities that include competition, instructors may want to allow sufficient processing time and perhaps discussion for those who need it.

**Recommendations and Implications for Future Research**

**Embed a Variety of Types of Classroom Assignments**
Differences in female and male conceptions of competitiveness would seem to underscore the need for a variety of learning approaches be available to undergraduate business school students, realizing men and women may react differently to various learning approaches (as certainly do students with different learning styles). This study showed that there is a special value in the writing about concerns, the challenge of a teacher, and the support of peers and teachers to the emergence of transformational learning.

**Treat Men and Women the Same Both Consciously and Unconsciously.**

In assuring women get equal exposure to learning experiences, teachers may also check their own expectations about equal performance despite the student’s gender. Teachers are encouraged to be aware of modifications in their own teaching style to male and female students. The conclusion is to treat both genders equally in the classroom.

**Connect Class Assignments and Exercises to the Broader Student Experience.**

Moving is especially characteristics of this and many undergraduate populations. Realizing that students are especially open to redecorating their environments can also be extended to their exploration of new mental frameworks, diverse peer groups and expanded ways to view their worlds.

**Implications for Future Research**

What was it about these young women that they were open to transformational learning in apparently the same way as men in this undergraduate business school? It may be possible, as some observers have suggested, that these women were more diligent in their approach to college than counterpart men (Lewin, 2006) and made up for any disadvantage in the business school structure. Further, to be asked, what was it about the educational experience at this particular undergraduate business school that encouraged a fairly high rate of transformational learning among both the men and women who were students there? It may have been the particular nature of the student body. These students may have been more similar to each other than even other males and females in a typical undergraduate population. These students self-selected to apply to a business school and to this highly-ranked business school in a very urban and stressful environment, acknowledged to have a highly competitive student body (Lavalle, Gerdes et al. 2006). They may also be particular in that many are seeking to mold themselves to careers that reward fast reaction to change, e.g., Wall St. and investment banking (School Website, 2005). Therefore, both the men and women who attend this school might be similar on characteristics affecting their openness to transformational learning, which has been cited as a conceptual model descriptive of openness to change (Cranton, 1994).

Many other questions remain unanswered. For example, do the number of exposures to any particular learning activity relate to the likelihood of transformational learning among either women or men? Does the particularly competitive nature of this research site, with its low acceptance rate, mean that a particular subset of students, especially women, attend this undergraduate business school? Would results replicate in lower tier undergraduate business schools? For that matter, is the business major more or less likely to be open to transformational
learning as other majors? Would equality of transformational learning between genders continue to MBAs and to the workplace? As women in the workplace occupy fewer top management positions, why does a gender difference in transformational learning show itself once college is left behind? Teachers may have found a way to create equivalent expectations and learning experiences such that male and female students equally report experiencing transformational learning. It may be that there are lessons to be applied to the organizations where these students find employment.

Future research could address some of these questions and determine whether most women and men are emerging from undergraduate business school education with equivalent leadership skills to succeed in business careers.

References


**Biography**

Sabra Brock, Ph.D., is a professor, researcher, writer, and management trainer. She teaches marketing and management to undergraduates at Touro College in New York City and is Dean of their German campus. She can be reached at Sabra.Brock@Touro.edu.