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The mission of the [Journal of Multidisciplinary Research](#) is to promote excellence in leadership practice by providing a venue for academics, students, and practitioners to publish current and significant empirical and conceptual research in the arts; humanities; applied, natural, and social sciences; and other areas that tests, extends, or builds leadership theory.

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Contents

Editorial Details...inside front cover
Mission Statement...inside front cover
Editorial Review Board...inside back cover

Editorial
By Hagai Gringarten...3

Articles

Structural Examination of Managerial Work Values and Constructive
Organizational Culture: Use of the Partial Disaggregation Method
By J. C. Kim and Mike Mondello...5

An Analysis of the Association between Perceived Discrimination and
Self-Reported Health among University Students in Southwest Florida
By Renee L. McFarland...15

Development and Evaluation of a Team Building Intervention with
a U.S. Collegiate Rugby Team: A Mixed Methods Approach
By Amber M. Shipherd, Itay Basevitch, Kelly Barcza Renner,
and Kamau Oginga Siwatu...31

A Review of Business Education around the Globe: Future Transitions
By Erdal Tekarslan and Nil Selenay Erden...49

Student Corner

Using Evidence-Centered Design to Diagnose Proficiency in
Solving Story Problems
By Gertrudes Velasquez and Umit Tokac...65

Reviews

Review of *Trafficked: My story of surviving, escaping, and transcending abduction into prostitution* by S. Hayes

By Susan Labasky Warheit...77

Review of *Reading theologically* by E. D. Barreto

By Jonathan Roach...79

Review of *Mistakes I made at work: 25 influential women reflect on what they got out of getting it wrong* by J. Bacal

By Gricel Domínguez...83

Editors' Choice

Recent books of interest – Fall 2014

By The Editors...85

About the Journal...89

Journal of Multidisciplinary Research, Vol. 6, No. 2, Summer 2014, 3.
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Editorial

A warm welcome to the summer edition of the *Journal of Multidisciplinary Research* (JMR).

As we continue to evolve as an academic journal, I am happy to announce that we have an addition to our editorial and reviewers rosters. A warm welcome to Dr. Bossons from the United Kingdom, Dr. Nolt from the USA, Dr. Trojanowska from Poland, and Dr. Munin from Israel.

Our current edition features thought-provoking articles from Fairleigh Dickinson University, the University of South Florida, Florida Gulf Coast University, Eastern Illinois University, Florida State University, Franklin University, Texas Tech University, Istanbul University, and the University of Belize. This issue of the JMR (Volume 6, Number 2) also features three book reviews: a book written by Hayes describing her story of surviving and escaping from human trafficking; another of a book written by Barreto proposing a formative and graceful approach for reading theologically; and one written by Bacal gathering insightful stories from 25 influential women. In this issue, we also are featuring photographs by Scott Gillig in the “spotlight artist” section.

As we begin a new academic year and a new fall semester, I wish you all the very best.

Onward,

Hagai Gringarten, Ph.D.

Editor-in-Chief



“Road to Nowhere”

Photograph by Scott E. Gillig.

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Structural Examination of Managerial Work Values and Constructive Organizational Culture: Use of the Partial Disaggregation Method

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Abstract

The purpose of this study is to examine and confirm two constructs' (constructive organizational culture and managerial work values) measurement model structures within a sport organization setting. Therefore, the study used the partial disaggregation method following Bagozzi and Heatherton (1994) and Hair, Black, Babin, Anderson, and Tatham (2006). Collectively, the confirmatory factor analysis results modeled an acceptable fit to the collected data. Consequently, the research confirmed the measurement models as valid constructs and would like to recommend other researchers to consider this partial disaggregation method when having a relatively complex measurement model with many items. One future research suggestion is to include some organizational outcome variables based on the current study's findings.

Keywords: partial disaggregation method, managerial work values, constructive organizational culture, structural confirmation of measurement models, sport organizations

Introduction

Building a desirable constructive organizational culture (COC) within an organization is critically important. COC can positively influence an organization's growth, direction, quality

development of new products or service, employees' commitment and satisfaction, communication among employees, and finally, its success (Cooke & Lafferty, 1989; Cooke & Rousseau, 1988; Szumal, 2003). The impact of values of leaders or executives in an organization can be a significant predictor for generating positive organizational outcomes, including organizational culture (Alas, Ennulo, & Turnpuu, 2006) because values are "concepts that guide an individual's evaluation and selection of goals" (Trail & Chelladurai, 2002, p. 292). Among different types of values available within a sport organizational situation, the study examined the influence of managerial work values (MWV) of higher-level employees in an organization on COC. Specifically, the study assessed how lower-level employees' perceptions on their leaders' work values could impact sport organizational culture. However, a lack of research on MWV and COC in sport management directs the current study to focus on and correctly examine the structure of each construct as the first step of the research. Thus, the purpose of the study is to examine and confirm the two constructs' structures.

Literature Review

MWV and Definitions

Work values are ideals directing a person's actions and guide interactions with other people at work. Research (Alas, Ennulo, & Turnpuu, 2006; Bigoness & Blakely, 1996) has examined the different effects of managers' values. Schein (1992) addressed that leaders' or managers' work values will represent the way they deal with the organization's environment. Significantly, organizational research (Taris, 2003; Taris & Feij, 2001; Taris, Feij, & Van Vianen, 2005) used three work value sub-constructs (i.e., Intrinsic, Extrinsic, and Social Relations). The researchers used the following definitions. Values are "concepts that guide an individual's evaluation and selection of goals, and the choice of behaviors or processes used to achieve those goals" (Trail & Chelladurai, 2002, p. 292). Intrinsic work values are "the degree to which employees value immaterial aspects of their jobs that allow for self-expression as important, for example, job variety and autonomy" (Taris & Feij, 2001, p. 53). Extrinsic work values are "the degree to which employees value material or instrumental work aspects, such as salary and opportunity for promotion, as important" (Taris & Feij, 2001, p. 53). Last, social relations at work are "the importance on attached to social aspects of work, specifically relationships with coworkers and supervisor, and pleasantness of the working atmosphere in general" (Taris & Feij, 2001, p. 60).

COC and Definitions

Organizational culture is basic principles members in an organization respect (Schein, 1992). Schein (1993) defined organizational culture as the following:

"a pattern shared basic assumptions that the group learned as it solved its problems of external adaptation and internal integration, that has worked well enough to be considered valid and therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems" (pp. 373-374).

Scholars (O'Reilly & Chatman, 1996; Xenikou & Simosi, 2006) described and emphasized the role of leadership in forming a more desirable and productive culture as a COC. Importantly, Aarons and Sawitzky (2006) defined constructive cultures as “characterized by organizational norms of achievement and motivation, individualism and self-actualization, and being humanistic and supportive. Constructive cultures encourage interactions with people and approach to tasks that will enable staff to meet their higher-order satisfaction needs” (p. 292). Similarly, Slowiak (2007) defined COC as “members are encouraged to interact with people and approach tasks in ways that will help them to meet their higher order satisfaction needs” (citing Acumen International, 2000). Specifically, the current study included four COC sub-constructs (i.e., achievement, self-actualizing, humanistic-encouraging, and affiliative). Definitions for the study are the following. Achievement means people set challenging but realistic goals, establish plans to reach them, and pursue them with enthusiasm. Self-actualizing is how people enjoy their work, develop themselves, and take on new and interesting activities. Humanistic-encouraging suggests people are supportive, constructive, and open to influence in their dealings with one another. Last, affiliative means people are friendly, cooperative, and sensitive to the satisfaction of their work group and of other work groups elsewhere in the organization (Cooke & Lafferty, 1989).

Method

Participants

The population of the current study was employees with non-managerial positions working in the South Korean sport industry. We used a convenience sampling technique. The sample size (N = 142) consisted of full-time non-executive employees of sport business organizations, including fitness clubs, martial art clubs, and golf practice facilities. The sample was from sport business organizations located in two districts in Seoul, South Korea (there are 25 districts in Seoul). The authors gathered the data for measuring all variables by a Likert scale questionnaire. Specifically, the authors hired and trained volunteers (i.e., Seoul City University students taking a management class). They visited each organization and asked the employees to complete an anonymous survey questionnaire. Next, they collected the completed surveys and delivered to a professor teaching a management class at the Seoul City University who then shared this with the authors. Although the authors employed a non-probabilistic convenience sampling due to time limitations and financial considerations, the convenience sampling procedure helped the study collect enough surveys (N = 142) to generate relatively reliable estimates (Gorsuch, 1983; Kline, 1979).

Measures

We used Cooke and Lafferty (1989)'s Organizational Culture Inventory (OCI) to measure COC. There are 40 items measuring four sub-constructs (i.e., 10 items for Achievement, 10 items for Self-Actualizing, 10 items for Humanistic-Encouraging, and 10 items for Affiliative) of COC. Each sub-construct had 10 seven-point Likert scale items anchored with 1 = strongly disagree and 7 = strongly agree. Sample items from the *Achievement* sub-construct are the following: “My organization encourages me to work to achieve self-set goals,” and “My

organization encourages me to pursue a standard of excellence.” Sample items from the *Self-Actualizing* sub-construct are the following: “My organization encourages me to be concerned about my own growth,” and “My organization encourages me to communicate ideas.” Sample items from the *Humanistic-Encouraging* sub-construct are the following: “My organization expects me to show concern for the needs of others,” and “My organization expects me to be supportive of others.” Sample items from the *Affiliative* sub-construct are the following: “My organization encourages me to treat others as more important than things,” and “My organization encourages me to be tactful.” The OCI has proven to be a reliable and valid measure from research (Cooke & Rousseau, 1988; Cooke & Szumal, 1993; Xenikou & Furnham, 1996).

Additionally, we used Taris and Feij (2001)’s Work Value Inventory (WVI) to measure three sub-constructs (i.e., 5 items for Intrinsic, 6 items for Extrinsic, and 4 items for Social Relations) of work values, and it has 15 items. The WVI has established to be a reliable and valid measure of work values (Taris, 2003; Taris & Feij, 2001; Taris et al., 2005). Taris and Feij (2001) originally designed the WVI to measure the beliefs of managers on 15 value items. The study slightly modified the measure to capture the employees’ perceptions of their managers’ work values (hence perceived managerial work values). Items measuring intrinsic work values included aspects such as variety, freedom, and meaningful tasks. Items measuring extrinsic work values included aspects such as salary, job security, and promotion. Last, items measuring social relations included aspects such as pleasant relationships and pleasant working atmosphere. The 15 items measuring perceived managerial work values used a seven-point Likert scale anchored with 1 (not at all important) and 7 (extremely important).

Data Analysis

In order to check the quality of the instruments having many items, the study had to see coefficient alpha (internal consistency), item-to-total correlation, item-to-item correlation, and item-to-total correlations with items deleted (Churchill, 1979). We analyzed data using the Statistical Package for the Social Science (SPSS 17.0). Following this analysis, the authors deleted 6 items that measure COC because of the quality issues: The coefficients of item-to-total correlation were not over the cut-off point of 0.50 (Hair et al., 1998), and the intercorrelation values were unstable and not exceeding 0.30 thus there were 49 items (34 items measuring COC and 15 items measuring MWV) in total.

Partial Disaggregation and Confirmatory Factor Analysis (CFA)

We expected to use the method of data reduction through partial disaggregation suggested by researchers (Bagozzi & Heatherton, 1994; Hair, Black, Babin, Anderson, & Tatham, 2006) since there were complex structural models (i.e., 4 sub-constructs of COC and 3 sub-constructs of MWV) of both constructs, relatively high correlation values among items in the sub-construct and many items still representing each sub-construct (i.e., complex structural models). By using this method, the researcher still keeps having the four sub-constructs under the construct of COC and the three sub-constructs under the construct of MWV. Because the primary goal of the current study was not developing new factors explaining those sub-constructs within each construct but examining and confirming the structures of two constructs, the study recognized this method, partial disaggregation, was appropriate in the current study. Importantly,

many scholars (Bagozzi & Heatherton, 1994; Dabholkar, Thorpe, & Rentz, 1996; Hair et al., 2006) argued this approach provides benefits of examining about construct structure. In fact, among sport management research Rocha and Chelladurai (2012) recently used and tested their partial disaggregation model. Furthermore, they introduced and compared two different disaggregation models (i.e., partial disaggregation model and total disaggregation model) clarified in the literature. Importantly, they described partial disaggregation as follows: “The items in a scale are parceled into fewer parcels to indicate the construct in question” (p. 47). As Hall, Snell, and Foust (1999) described, the study used a random partial disaggregation strategy. The means of the study decided on the number of parcels either 2 or 3 (Bagozzi & Heatherton, 1994). After the study developed the partial disaggregation models on the two constructs, the authors conducted a CFA to examine sub-constructs of each construct by use of Joreskog and Sorbom’s Linear Structural Relations (LISREL) 8.72.

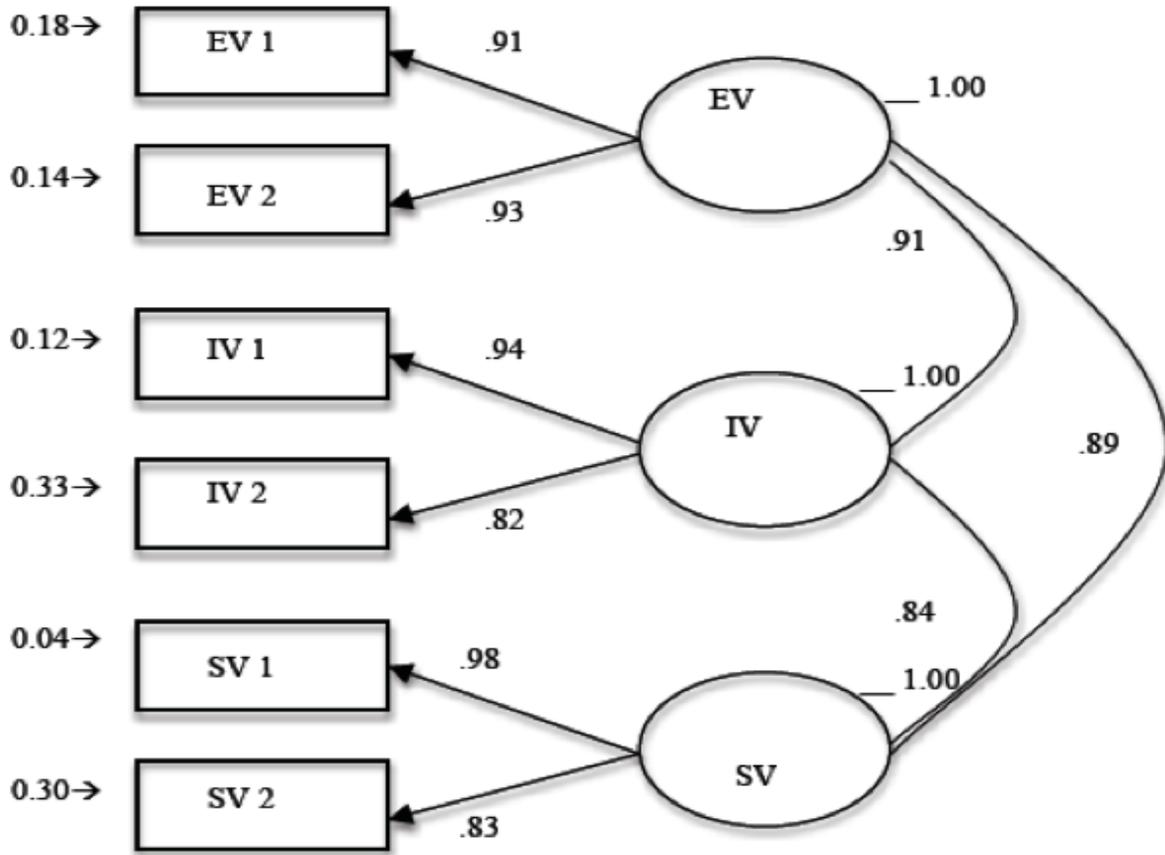
Results

Descriptive Statistics

Of the 142 respondents, 92 were male, and 45 were female (5 respondents omitted their gender). The average participants’ age was 30.55 years with a standard deviation of 6.61. The average participants’ year in their current organizations was about 2 years and 9 months. Among the 142 respondents, 95 were married persons, and 42 were not married persons (5 respondents omitted their marital status).

CFA – MWV

All MWV measurement model loadings were significant and loaded highly. The model was a reasonably good fit to the data ($\chi^2 [6] = 11.898$, $p > .05$; CFI = .995; NFI = .990; NNFI = .987; RMSEA = .0776; SRMR = .0156) (See Figure 1). Additionally, MWV has 3 sub-constructs, and the construct is considered as a second-order latent variable. Thus, we conducted a second-order CFA and the results showed the model made an acceptable fit to the data.



**$\chi^2 [6] = 11.898, p > .05; CFI = .995; NFI = 0.990; NNFI = .987; RMSEA = .0776;$
SRMR = .0156**

Figure 1. Standardized estimates from the measurement model of MWV.
 (EV: Extrinsic Work Values, IV: Intrinsic Work Values, SV: Social Relations Work Values)

CFA – COC

All COC measurement model loadings were significant and loaded highly. The model was a fairly good fit to the data ($\chi^2 [48] = 101.623, p < .05; CFI = .987; NFI = .976; NNFI = .982; RMSEA = .0976; SRMR = .0374$) (See Figure 2). COC has 4 dimensions and the authors considered it as a second-order latent variable. Thus, we conducted a second-order CFA. The results showed the second-order model has a proper fit to the data ($\chi^2 [50] = 142.688, p < .05; CFI = .978; NFI = .966; NNFI = .971; RMSEA = .110; SRMR = .0584$) except RMSEA.

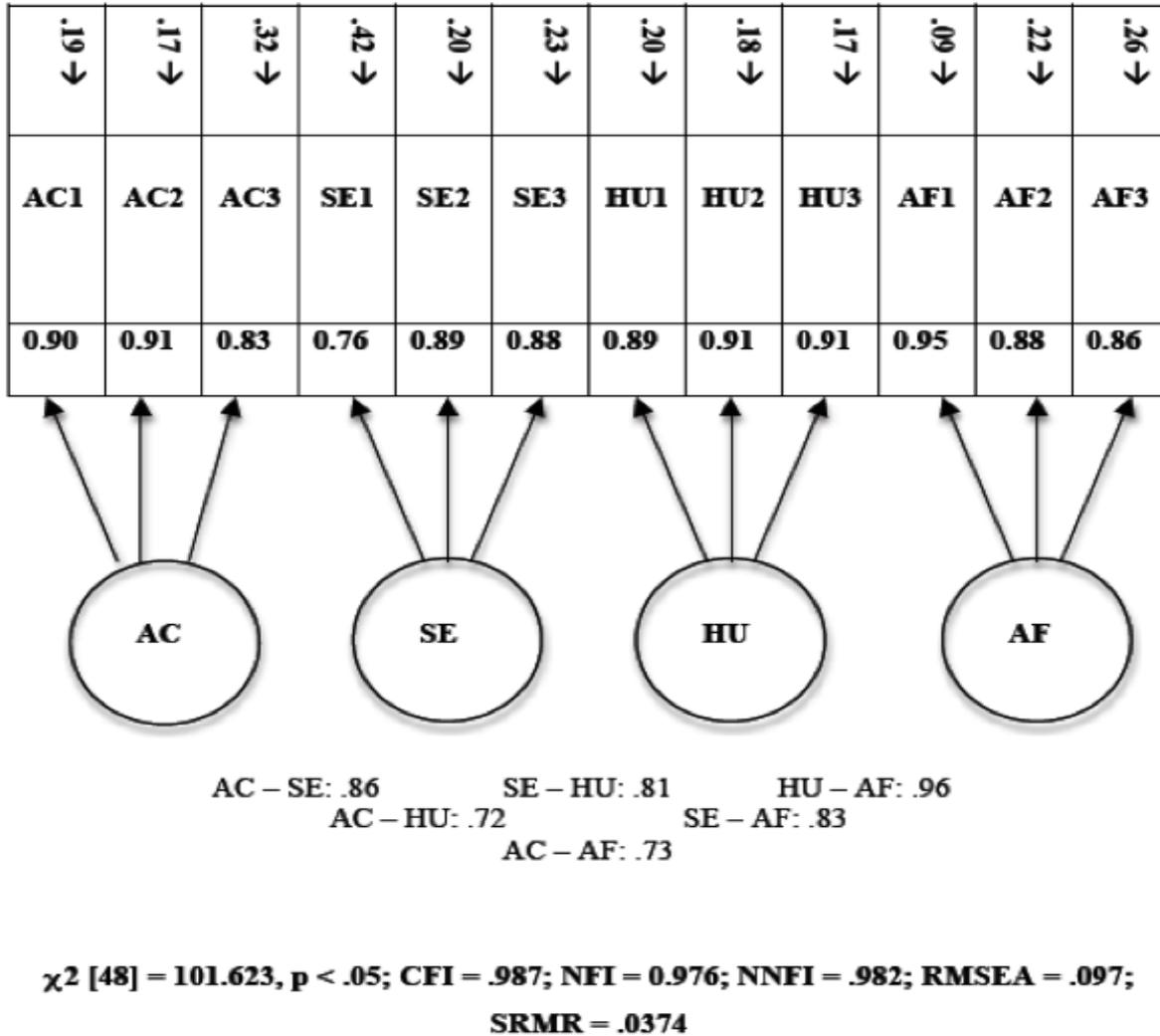


Figure 2. Standardized estimates from the measurement model of COC.
 (AC: Achievement, SE: Self-Actualizing, HU: Humanistic-Encouraging, AF: Affiliative)

Discussion and Conclusion

Structure Confirmation and Partial Disaggregation

Partial disaggregation's strength is that researchers can still execute significant model fit test by use of proper levels of aggregation (von der Heide & Scott, 2009). Another pro is that partial disaggregation provides some simplicity (Bagozzi & Heatherton, 1994). Thus, Bagozzi and Heatherton (1994) recommended the following approaches: (1) researchers can divide a scale including 5 to 7 items randomly into 2 components, and (2) researchers can divide a scale composing more than 9 items into 3 or more components. The study followed their recommendation for aggregation. Again, based on the two CFA results of MWV and COC, respectively, the psychometric properties of MWV having 3 sub-constructs and COC having 4 sub-constructs provided an adequate model fit for the collected data. Therefore, there were no

structural issues of the two constructs. As a result, the study recommends this method, partial disaggregation, or data reduction if researchers particularly try to use complex measurement models, having many items and confirm their validation. The use of this method also can help researchers design their research model with simplicity and rigidity.

Limitations of the current study are the following. First, the scope of the population was specific to one country (i.e., South Korea). It would be better if we examined measurement models of various organizations and employees in different populations. Second, although both MWV and COC are multi-dimensioned constructs with many items, the study focused on the structural confirmation of each construct. That indicates there are research opportunities to examine further specific sub-construct under the two main constructs and its impact and relation on an organization. Future studies could include other new constructs (e.g., job satisfaction, turnover intention, and organizational effectiveness) in the research conceptual model as an organizational outcome variable having interrelationships with MWV and COC. In conclusion, we used the partial disaggregation (i.e., data reduction) method to confirm the measurement models of MWV and COC after investigations of item-to-total correlations, values of Cronbach's alpha, and intercorrelations among items. In the study, future researchers could have a better understanding of the role of partial disaggregation in the relatively complex measurement models.

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Discussion Questions

1. A constructive organizational culture is an important determinant of how employees of sport (service) organizations deal with customers, or fans, or both. Why is this so?
2. Why is the partial disaggregation method (i.e., data reduction) suitable for complex structural measurement modeling?
3. Three distinct values can measure managerial work values collectively: Extrinsic, intrinsic, and social relations work values. How does each type of work values play a significant role in the sport organizations?
4. Many researchers welcome the partial disaggregation method. Are there any challenges of the method? If so, why? If not, why not?

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An Analysis of the Association between Perceived Discrimination and Self-Reported Health among University Students in Southwest Florida

Renee L. McFarland
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Abstract

The experience of discrimination is a complex phenomenon. Few studies have captured the experience of discrimination on a predominately White university campus. This study investigated the association between perceived discrimination and self-reported health outcomes among university students in Southwest Florida. The stratified cluster random sample consisted of 527 students attending classes on the main campus of a university in Southwest Florida. This analysis provided information regarding the following: (1) the frequency of discrimination, (2) how perceived discrimination can negatively affect people from all racial and ethnic backgrounds, (3) the impact of discrimination on general health, and (4) how discrimination can contribute to unhealthy behaviors. This study addressed three research questions: (1) Is perceived discrimination significantly associated with self-reported psychological and physiological health outcomes among university students? (2) Is race or ethnicity, gender, sexual orientation, or socioeconomic position (SEP) associated with exposure to discrimination? (3) Is perceived discrimination a unique predictor of mental and physical health outcomes? For this study, a new instrument, *Impact of Discrimination on Health*, measured the association between perceived discrimination and self-reported health among university students.

Keywords: Perceived Discrimination; Health; Racism; Ethnicity, Psychological Distress

Introduction

The experience of discrimination is a complex, multidimensional phenomenon. Multiple works have studied perceived discrimination with regard to its impact on health (Kelaheer et al., 2008; Williams, 2005). Today, the expression of discrimination is usually subtle while chronic forms of discrimination are still very real for certain groups in U.S. society (Kelaheer et al., 2008; Pascoe & Richman, 2009). Discrimination is a ubiquitous social reality that exists in the lives of

many individuals, specifically individuals who represent a minority group (Kelaher et al., 2008; Williams & Mohammed, 2009). According to the research, chronic experiences of discrimination whether based on race, gender, socio-economic position (SEP), sexuality, or other characteristics, have negative implications on mental health and behavioral health outcomes (Bennett et al., 2005; Chae & Walters, 2009; Williams, 2005). Researchers have found a consistent link between perceived experiences of discrimination and illness (Gee & Walsemann, 2009; Paradies, 2006; Seaton & Yip, 2009; Williams, 2005). It is the accrual of these discriminatory experiences over the life course that can diminish overall well-being, often affecting health behaviors (Gee & Walsemann, 2009).

Multiple researchers hypothesized that discrimination, a significant psychological stressor, associates with cardiovascular disease (CVD), hypertension, self-reported poor health, as well as potential risk factors for obesity and substance abuse (Brondolo et al., 2008; Cardarelli et al., 2010). Pascoe & Richman (2009) theorized that over time, repeated exposure to discriminatory experiences can influence health through the release of negative stress responses. It is these adverse stress responses that ultimately can lead to mental and physical illness. In addition to triggered negative stress responses, discrimination experiences may affect health by decreasing an individual's self-control resources, potentially increasing participation in unhealthy behaviors and decreasing participation in healthy behaviors. The implication is that when trying to cope with discriminatory experiences, individuals are left with fewer coping skills for making healthy behavior choices (Pascoe & Richman, 2009). According to the research, perceived discrimination is one of the main mechanisms explaining health disparities in many populations across the country (Kelaher et al., 2008; Pieterse & Carter, 2007). A meta-analytic review of 192 studies highlighted a strong relationship between perceived discrimination and negative health outcomes; these outcomes include mental health, physical health, daily behaviors, and coping strategies (Major et al., 2002; Paradies, 2006; Williams & Mohammed, 2009). According to Krieger (2000), people do not report all 'perceived experiences of discrimination.' The documentation of discrimination depends upon individuals' willingness or ability to report, which can be a limitation when trying to identify the actual prevalence of discrimination.

Discrimination is a pervasive phenomenon in the lives of many racial minorities. It can take the form of both blatant (e.g., being called a derogatory name) and subtle behaviors (e.g., being stared at by security guards while shopping) that permeate the daily lives of individuals (Sellers & Shelton, 2003). The majority of research on the relationship between racial discrimination and psychological health has focused on African American populations (Kelaher et al., 2008; Pieterse & Carter, 2007). Paradies (2006) stated that African Americans have relatively high perceptions of racial discrimination, between 75% and 85% for lifetime exposure to discrimination. According to the research, approximately 60% or more of African American adults typically encounter some form of discrimination in their lives (Sanders-Thompson, 2002; Williams, Yu, Jackson & Anderson, 1997). In addition to minority adults experiencing discrimination or unfair treatment, D'Augelli and Hershberger (2003) found that 41% of African American college students reported occasionally hearing disparaging racial remarks, 41% reported frequently hearing such remarks, and 59% reported they had been the target of racial insults at least once or twice.

Few researchers have examined the relationship between perceived discrimination and self-reported health among a predominately White student population; ample research has examined racial discrimination among minority groups (Chae & Walters, 2009; Pieterse &

Carter, 2007). To help fill this research gap, the researcher examined the association between self-reported discrimination and mental and physical health status among a Southwest Florida university student population with the intent of determining whether discrimination is a major factor that can negatively affect student health. The purpose of this study was to identify an association between perceived discrimination, ethnicity, gender, sexual orientation, SEP, and self-reported health status among university students attending a Southwest Florida university.

A growing body of evidence supports the negative effects of racial discrimination on health outcomes, especially among minority groups such as African American populations (Kelaher et al., 2008; Pieterse & Carter, 2007). However, research identifying the impact of self-reported discrimination on the health status of individuals who are predominately White is limited. Other than racial discrimination, students can experience discrimination due to gender, sexual orientation, religion, physical appearance, educational level, and SEP (Bellmore et al., 2012). Therefore, in addition to investigating the association between perceived discrimination and self-reported health among approximately 700 predominantly White students attending a university in Southwest Florida, the researcher explored the frequency of various forms of discrimination, situational discrimination, and the impact of discrimination on one's life experiences that occur among specific socio-demographic groups.

This study was an exploratory study. The goal of the research was to contribute to the existing body of empirical evidence that suggests an association between perceived discrimination and self-reported health outcomes among a population of university students.

Three overarching research questions guided this study: (1) Is perceived discrimination associated with self-reported psychological and physiological health outcomes among university students? (2) Is race or ethnicity, gender, sexual orientation, or socioeconomic position associated with exposure to discrimination? (3) Is perceived discrimination a unique predictor of health outcomes?

Method

Participants

The sample design for this study was a stratified random cluster sample that each of the five colleges, academic course levels, and class specified. The researcher selected approximately 700 university participants from the 12,069 fall 2012 undergraduate student enrollment. Using *Microsoft Excel*, the University Registrar categorized 1,237 undergraduate courses the university offered in fall 2012 according to the individual colleges (College of Education, College of Business, College of Arts and Sciences, College of Health Professions and Social Work, and the College of Engineering) and by academic level (1,000 - 4,000). The university registrar's office filtered out 2012 fall semester virtual, graduate, and off campus courses. The stratification variables consisted of data organized according to their college affiliation, academic level, and class. The result was a summary of the total number of classes on offer and total number of students enrolled at each academic level within each college. A sample size of 700 students allowed for appropriate proportional representation from within the 5 colleges. The researcher distributed surveys to 21 classes throughout the five colleges. Approximately 700 participants, 18 years of age or older, provided written consent forms to participate in the study. Participants less than 18 years of age did not to participate in the study.

Measures

Study participants supplied all socio-demographic data. Data included information concerning ethnicity, gender, age, sexual orientation, and socio-economic position. Combined family or individual income and possession of medical insurance was the basis of SEP.

Discrimination sub variables. The independent discrimination variable was total 'self-reported' discrimination experiences or unfair treatment within a social or interpersonal context. The discrimination sub variables the researcher examined throughout this study were the following: (1) type of discrimination or unfair treatment, (2) situational discrimination, and (3) impact of discrimination. The type of discrimination definition was any physical attack, verbal abuse, exposure to discrimination, or unfair treatment due to ethnicity, gender, or sexual orientation. The researcher chose 18 items from Williams's et al. (1997) *Everyday Discrimination Scale* (EDS) and Brondolo's et al. (2005) *Brief Perceived Ethnic Discrimination Questionnaire* (Brief PEDQ-CV) to measure type and frequency of discrimination. For this study, the researcher operationally defined situational (i.e., work, school, shopping) discrimination as any situation in which discrimination or unfair treatment due to race, color, ethnicity, gender, or sexual orientation occurred. The researcher chose eight items from Krieger's et al. (2005) *Experiences of Discrimination Scale* (EODS) and two items from Williams's et al. (1997) *Major Experiences of Discrimination Scale* (MEDS) to measure the impact of discrimination on one's life.

The dependent or criterion variable was self-reported health outcomes. The researcher used a summary score of 18 items from 2 instruments to measure health outcomes. The two instruments were *The Quality Metric's Standard SF-12v2 Health Survey Standard Short Form* (SF-12v2) and Cohen's condensed *Perceived Stress Scale* (PSS). Each survey provided psychometrically-based physical component summary (PCS) and mental component summary (MCS) scores.

The *Perceived Stress Scale* (PSS) (Cohen, Kamarck, & Mermelstein, 1983) is the most common instrument to measure levels of stress. For this study, respondents completed the condensed version of Cohen's Scale. Items on this scale measure how unpredictable, uncontrollable, and overloaded respondents find their everyday lives. It also includes a number of direct queries about current levels of experienced stress. It asks respondents to identify their feelings by the use of a 5 point Likert scale ranging from 1 = *never* to 5 = *very often*. The researcher reverse-scored four items worded in a positive direction then summed the responses to create a psychological stress score, with higher scores indicating greater psychological stress.

Procedure

The Institutional Review Board approved this study to identify self-reported discrimination as a potential threat to overall health status. Data collection began in the 2012 fall semester after undergraduate registration completed. The researcher used *Statistical Package for the Social Sciences* (SPSS) 20 to randomly select 21 undergraduate face to face courses the university offered. The researcher contacted each course instructor by phone to initiate an invitation to participate in the study. Each instructor received a letter of cooperation, which he or she then signed and returned to the researcher signifying his or her agreement to participate.

Instructors then received all survey materials including a full explanation of the study procedures. Participants completed the surveys during face to face class meetings. Participation was voluntary; all participants were 18 years old or older and all completed IRB signature forms. Instructors returned completed surveys to the researcher using inner-office mail. To control for consistent administration, each instructor read the survey directions to his or her course participants.

The Study Instrument – *The Impact of Discrimination on Health Survey.* The researcher created the final study survey from 6 validated instruments several studies used to assess the association of self-reported discrimination and health outcomes. The original survey instruments were the following: (1) Williams's et al. (1997) *Everyday Discrimination Scale*, (2) Williams's et al. (1997) *Major Experiences of Discrimination Scale*, (3) Krieger's et al. (2005) *Experiences of Discrimination* scale, and (4) Brondolo's et al. (2005) *Brief Perceived Ethnic Discrimination Questionnaire*. Instruments the researcher used to measure mental and physical health status were the following: (1) *The Quality Metric's Medical Outcomes Study Short Form (SF-12v2) Health Survey* and (2) *The Perceived Stress Scale* (Cohen et al., 1983). Participants answered all items on the *Impact of Discrimination on Health* (McFarland, 2013) survey. Participants answered according to their perception of 'self-reported discrimination experiences' and overall well-being. Since the experience of discrimination is a complex, multidimensional phenomenon, survey items assessed the experience of discrimination in a multidimensional manner. The instrument not only provided a measure of frequency of exposure to discrimination among university students but also attempted to assess behavioral and emotional responses to discrimination. The researcher created the final study survey from 6 validated instruments several studies used to assess the association of self-reported discrimination and health outcomes.

Self-reported discrimination items. In order to measure 'self-reported' experiences of discrimination, 18 items captured the frequency of unfair treatment-discrimination experiences among a university student's day-to-day life. Some of these items included the following: 'Because of your race, ethnicity, color, SEP, gender, or sexual orientation, have others treated you: (1) with less courtesy than others; (2) with less respect than others.'

The researcher assessed self-reported unfair treatment-discrimination in the following way: A = (*Never*), B = (*Once*), C = (*Two times*), D = (*Three times*), and E = (*Four or more times*). The researcher recoded 18 items that captured frequency of day to day unfair treatment-discrimination experiences from A - E to a five-point Likert scale (1 - 5) with higher scores indicating higher frequencies of unfair treatment or discrimination. For questions pertaining to situational 'self-reported' unfair treatment or discrimination, participants reported how often they experienced unfair treatment or discrimination in specific situations by selecting: A = (*Never*), B = (*Once*), C = (*Two times*), D = (*Three times*), and E = (*Four or more times*).

Based on a modified version of Williams's et al. (1997) *Major Experiences of Discrimination* measure, the researcher selected 2 global questions to address the extent to which exposure to discrimination had impacted a participant's life. Participants self-reported by selecting A = (*Not at all*), B = (*A little*), C = (*Some*) and D = (*A lot*). The researcher recoded items assessing impact of discrimination from A - D to a four-point Likert scale (1 - 4), with higher scores indicating a perceived greater impact of discrimination.

Self-reported mental and physical health status. To measure self-reported health status, the researcher selected 18 of the 56 items from SF-12v2 and the PSS. For example, the researcher asked participants, 'During the past 4 weeks, how much time were you limited in the

kind of work or activities you like to do as a result of your physical health? Choices included the following: A = (*All of the time*), B = (*Most of the time*), C = (*Sometimes*), D = (*A little of the time*), and E = (*Never*). The researcher recoded survey items from A – E to a five-point Likert scale (5 – 1), with higher scores indicating poorer health status.

Data Analysis Procedures

The researcher used the *Remark Classic Optical Mark Recognition* (OMR) version 4.2 software package and SPSS version 20.0 to complete data analysis. The researcher provided descriptive statistics for all variables. After examining the data the researcher compiled from the sample ($n = 527$), the researcher were correlated and analyzed outcomes.

Analysis and comparison of the total scores from the 28 discrimination items and the total scores from the 18 health outcomes items occurred using a Multivariate Analysis of Variance (MANOVA). To analyze data addressing the research question, “Is race or ethnicity, gender, sexual orientation, or socioeconomic position associated with exposure to discrimination?” the researcher used a factorial analysis of variance (ANOVA). To analyze data addressing the research question, “Is perceived discrimination a unique predictor of health outcomes?” the researcher used a simple regression. The researcher employed the Pearson correlation coefficient to examine relationship between student health outcomes (dependent variable) and self-reported discrimination (independent variable) experiences. To protect against Type I error, the researcher assessed a Statistical significance at the $\alpha = .01$ level.

Inferential Statistical Results

After examining the full sample descriptive analysis data and because of limited number of responses within the existing socio-demographic variables, the researcher decided to transform-collapse and recode socio-demographic variables of sexual orientation, gender, and ethnicity-race. These three recoded variables were as follows: (1) gender variable transformed into ‘Male and Female’ variables. The researcher removed the ‘Transgender’ sub variable from the data set due to a small sample ($n = 5$); (2) sexual orientation variable transformed into ‘Heterosexual and ‘Alternative’ variables. The researcher also collapsed 4 variables, Homosexual, Lesbian, Bisexual, and ‘Other’ into a new ‘Alternative’ variable, and (3) ethnicity variables transformed into 2 new variables, ‘Non-Minority’ and ‘Minority.’ Because of lower Hispanic, Asian, African American, and ‘Other’ representation ($n = 123$), the researcher collapsed the 4 minority groups into a ‘Minority’ variable. The researcher included Caucasians ($n = 404$) as the ‘Non-Minority’ group.

Results

All participant responses indicated there were no significant differences between study participants and the university population along the various demographics.

Participants ranged from 18 (13.85%) to over 21 (30.17%) years of age. Seventy-eight (14.8%) of the participants were first-year students, 134 (25.43%) of the participants were sophomores, 162 (30.74%) of the participants were juniors, and 153 (29.03%) of the participants were seniors. Within the study, 21.25 % ($n = 112$) of the participants reported, before taxes and

after combining their parent’s previous year’s income, that they earned between \$50,000-\$79,999 last year; in addition, 18.79% ($n = 99$) of the participants reported earning less than \$25,000 last year, before taxes and after combining their parent’s income. Data concerning level of education for participants’ parents indicated 4.55% of the participants’ mothers did not earn high school diploma, 35.29% of the participants’ mothers had earned a high school diploma, and 60.15% of the participants reported that their mothers had earned an associate’s degree, bachelor’s degree, or other professional graduate degree. With regard to highest level of education the participants’ fathers completed, 5.88% of the participants’ fathers did not earn a high school diploma, 39.28% of the participants’ fathers had earned a high school diploma, and 54.84% reported their fathers had earned an associate’s degree, bachelor’s degree, or other professional degree. Table 1 presents sample counts according to ethnicity, sexual orientation, health insurance status, and gender.

Table 1
Sample Counts by Ethnicity, Sexual Orientation, Health Insurance Status, and Gender
 (N = 527)

	Male	Female	Transgender	Row Total
<i>Ethnicity</i>				
African American	8	16	2	26 (4.9%)
Asian	5	3	1	9 (1.7%)
Caucasian	159	245	0	404 (76.7%)
Hispanic	24	41	1	66 (12.5%)
Other	8	13	1	22 (4.2%)
<i>Sexual Orientation</i>				
Heterosexual	192	297	1	490 (93.0%)
Homosexual	5	1	1	8 (1.5%)
Lesbian	3	3	0	6 (1.2%)
Bisexual	3	12	2	17 (3.2%)
Other	0	5	1	6 (1.1%)
<i>Health Insurance Status</i>				
Student Owned Policy	37	60	1	98 (18.6%)
Covered by Parents’ Policy	140	200	2	342 (64.9%)
Not Covered	27	58	2	87 (16.5%)
Gender Totals	204 (38.71%)	318 (60.34%)	5 (0.01%)	

Experiences of Discrimination Results

To examine frequency of experiences of discrimination (EOD), participants’ responses to discrimination or unfair treatment, the researcher recoded items to ‘yes’ and ‘no’ responses. If the participants indicated they had experienced at least one incident of discrimination or unfair treatment, the researcher recoded the response from once, two times, three times, or four or more times to ‘yes.’ If the participant indicated he or she had ‘never’ experienced an incidence of discrimination or unfair treatment, the researcher recoded the response from ‘never’ to ‘no.’ Table 2 displays results; all survey questions (items 11-28) began with the following: “because of

your race, ethnicity, color, physical appearance, socioeconomic status, gender, religion, or sexual orientation have...”

Table 2
Percentage of Students Reporting Experiences of Discrimination by Ethnicity (N = 527)

Item	Asian	Afr. Amer.	Hispanic	Caucasian	Other
You been treated unfairly by staff?	22.2%	38.5%	19.7%	13.9%	22.7%
Others thought that you could not do things?	11.1%	34.6%	22.7%	24.8%	31.8%
Others threatened to hurt you?	-	15.4%	12.1%	10.4%	13.6%
People thought that you were not smart?	22.2%	57.7%	42.4%	34.7%	22.7%
Others acted afraid of you?	22.2%	42.3%	19.7%	17.1%	22.7%
Others hinted that you were dishonest?	25.8%	30.8%	25.8%	12.9%	27.3%
Others hurt you?	11.1%	23.1%	9.1%	9.7%	13.6%
Others called you names?	22.2%	34.6%	37.9%	34.9%	40.9%
Others threatened to damage your property?	14.1%	11.5%	7.6%	8.2%	13.6%
Others damaged your property?	-	3.8%	6.1%	5.4%	9.1%
Others made you feel like an outsider?	22.2%	50.0%	37.9%	31.2%	45.5%
Others treated you with less respect?	31.2%	26.9%	33.3%	18.6%	31.8%
Staff members made you feel like an outsider?	-	23.1%	7.6%	8.4%	31.8%
Others ignored you?	22.2%	38.5%	34.8%	26.7%	36.4%
Others hinted that you do not practice good hygiene?	11.1%	7.7%	4.5%	5.4%	18.2%
Staff members treated you with less courtesy than others?	-	34.6%	12.1%	8.4%	27.3%
Campus police officers were unfair to you?	22.2%	11.5%	13.6%	5.7%	37.8%
Others hinted that you are lazy?	-	26.9%	18.2%	17.6%	27.3%

Experiences of Discrimination Summary Score Results

The possible EOD summary score from survey items 11-38 ranged from 28 (lowest incidence) to 138 (highest incidence) points. The minimum summary EOD score was 28.00; the maximum summary EOD score was 112.00; the mean value was 37.07, with a standard deviation (SD) of 12.27. Transgender participants (n = 5) had the highest mean value (50.80), while male participants (n = 204) had the lowest mean value (35.79) for total discrimination experiences. African American participants (n = 26) had the highest mean value (45.46), with Asian

participants ($n = 9$) reporting the lowest mean value of 33.78 for total experiences of discrimination. When self-reporting by sexual orientation, the 'other' participants ($n = 6$) had the highest mean value (53.00) for overall discrimination experiences, while the homosexual, lesbian, and bisexual groups scored a mean value of 44.00. The heterosexual group reported the lowest mean value of 36.43. The participants earning less than \$25,000 a year ($n = 99$) reported the highest mean value of 39.96, while students earning \$100,000 or more a year ($n = 110$) reported the lowest mean value of 35.75.

Health Outcomes Summary Score Results

The minimum summary health outcomes score was 18.00; the maximum summary health outcomes score was 67.00, the mean value was 35.98, with a standard deviation (*SD*) of 9.98. Participants who identified as 'transgender' had the highest health outcomes mean value of 43.60, while males had the lowest health outcomes mean value with 34.01. Participants who identified as homosexual, lesbian, bisexual, and 'other' scored higher health outcomes mean values than members of the heterosexual group. Last, participants who reported they earned less than \$25,000 a year scored the highest health outcomes mean value with 39.28.

Variations in Self-Reported Perceived Discrimination and Health Status

With regard to sexual orientation, participants who self-reported as 'alternative' had the highest mean value for both EOD ($m = 45.54$) and health outcomes ($m = 43.91$) summary scores. Females scored higher on both EOD and health outcomes scores with mean values of 37.68 and 37.11. Study participants who self-reported as 'minority' had a higher mean value for both EOD ($m = 40.61$) and health outcomes ($m = 36.49$) summary scores. Last, study participants who reported earning less than \$25,000 a year scored an EOD mean value of 39.95 and a health outcomes mean value of 39.28 respectively.

After computing the one-way MANOVA and comparing EOD and health outcomes summary scores for all study participants within the 4 socio-demographic groups, the results revealed a significant multivariate main effect for sexual orientation, Wilks' $\lambda = .980$, $F(2, 485) = 4.963$, $p = .007$. In addition, the researcher found a significant multivariate main effect for gender, Wilks' $\lambda = .987$, $F(2, 485) = 3.286$, $p = .038$. After calculating the one-way MANOVA examining the effect of ethnicity on perceived discrimination and health outcomes summary scores, the researcher found no significant effect, Wilks' $\lambda = .993$, $F(2, 485) = 1.768$, $p = .172$. Last, after calculating the one-way MANOVA examining the effect of SEP/income on perceived discrimination and health outcomes summary scores, the researcher found no significant effect, Wilks' $\lambda = .984$, $F(8, 970) = 1.002$, $p = .433$.

The results in Table 3 indicate that by gender, the health outcome mean value was statistically significant ($F = 12.42$, $df = 520$, $p < .001$). Study participants the researcher categorized according to ethnicity reported a statistically significant EOD mean value ($F = 13.66$, $df = 525$, $p < .001$). Differences in the EOD ($F = 19.621$, $df = 525$, $p < .001$) and health outcome mean values ($F = 26.44$, $df = 525$, $p < .001$) were statistically significant at $\alpha = .001$ for participants who identified according to sexual orientation. Last, participants reporting according to income-SEP, scored a statistically significant health outcome mean value ($F = 4.276$, $df = 522$, $p < .001$).

Table 3
Perceived Discrimination and Health Outcomes Analysis of Variance of Socioeconomic Independent Variables (N = 527)

Independent Var.	Dependent Var.	Df	SS	MS	F	Pr.>f
Gender	Discrimination Score	1	440.17	440.17	3.033	.082
	Health Score	1	1193.14	1193.14	12.42*	<.001
Ethnicity	Discrimination Score	1	2008.00	2008.00	13.66*	<.001
	Health Score	1	42.138	42.138	.423	.516
Sexual Orientation	Discrimination Score	1	2853.79	2853.79	19.621*	<.001
	Health Score	1	2511.02	2511.02	26.44*	<.001
Income/SEP	Discrimination Score	4	1094.57	273.64	1.83	.122
	Health Score	4	1661.61	415.40	4.276*	.002

* Significant at the .05 Level

Socio-demographic Differences in Perceived Discrimination

Having determined there were statistically significant mean differences in EOD or health outcomes scores or both between groups, analyses continued by investigating the link between socio-demographic differences and self-reported perceived discrimination. The researcher performed a 2 x 2 x 2 x 4 factorial analysis to examine the interaction terms. Because none of the interactions were significant, to increase the power of the tests and to promote ease of interpretation, the researcher computed 4 separate one-way ANOVAs to examine the main effects. Table 4 presents ANOVA results for the four socio-demographic groups-variables.

Table 4
Perceived Discrimination Analysis of Variance for Socioeconomic Independent Variables (N= 527)

Independent Var.	Source of Variance	Df	SS	MS	F	Pr.>f
Gender	Between Groups	1	440.168	440.168	3.033	.082
	Within Groups	520	75460.991	145.117		
	Total	521	75901.159			
Ethnicity	Between Groups	1	2008.002	2008.002	13.655*	<.001
	Within Groups	525	77203.258	147.054		
	Total	526	7921.260			
Sexual Orientation	Between Groups	1	2853.793	2853.793	19.621*	<.001
	Within Groups	525	76537.467	145.443		
	Total	526	79211.260			
Income	Between Groups	4	1094.570	273.643	1.829	.122
	Within Groups	522	78116.690	149.649		
	Total	526	79211.260			

*Significant at the .05 Level

After computing the one-way ANOVA and comparing the total EOD scores for all participants, within the 4 socio-demographic variables, the researcher found a significant difference among the participants self-reporting according to ethnicity. The difference in self-reported discrimination and ethnicity mean value was statistically significant at $\alpha = .01$, ($F = 13.6$, $df = 525$, $p < .01$). Participants who identified as ‘minority’ scored a mean value of 40.61 while the participants who self-reported as ‘non-minority’ scored a mean value of 35.99. In addition, there were statistically significant mean differences between the participants when self-reporting according to sexual orientation ($F = 19.6$, $df = 525$, $p < .01$). Participants who identified as ‘heterosexual’ scored a mean value of 36.43, while the participants who ‘self-reported’ as ‘Alternative’ scored a mean value of 45.54. The researcher found no significant difference between the other two socio-demographic variables.

Perceived Discrimination as a Predictor of Self-Reported Health

Having found there were statistically significant differences between socio-demographic groups (ethnicity & sexual orientation) and perceived discrimination, further analyses advanced examining data the researcher collected addressing the third research question: “Is perceived discrimination a unique predictor of health outcomes?” To examine this research question, the researcher used simple regression analyses to determine if perceived discrimination was a possible predictor of health outcomes among the study sample. The researcher used a simple linear regression to calculate and evaluate the prediction of participant’s health outcomes summary scores based on experiences of discrimination summary scores. Table 5 presents the simple regression analysis for discrimination variable predicting student health outcomes.

Table 5

Summary of Simple Regression Analysis for Discrimination Variable Predicting Student Health Outcome Scores

	B	SE B	β	t	Pr. > t
Perceived Discrimination	0.39	0.04	.37	9.21	< .001

$N = 527$

$R^2 = .139$

The researcher found a significant regression equation ($F (1, 525) = 84.77$, $p < .001$), with R^2 of .139. According to the results, perceived discrimination explains approximately 14% of the variance, meaning the discrimination summary score accounts for 14% of the variability in the health summary score. As frequency or exposure to discrimination increased, the risk of illness or negative impact on health increased.

Discussion

The researcher hypothesized that experiences of perceived discrimination could negatively impact health outcomes; the researcher found support for this hypothesis within the university sample from five ethnic groups. Even though the majority of the sample was Caucasian (76.7%), when the researcher used sexual minority (homosexual, lesbian, bi-sexual, & other)

group to classify the sample, Caucasian students, as well as the minority students, experienced incidences of discrimination in many university settings and situations. To the researcher's knowledge, this is one of the few studies that explored the impact of various types of perceived discrimination, other than racial discrimination, on university students. This study examined variations of self-reported discrimination and health outcomes according to four socio-demographic variables: race-ethnicity, gender, sexual orientation, and socioeconomic position (SEP), parent's and students' annual income defined. Several prior studies (Harrell et al., 2003; Kappen, 2000; Postmes & Branscombe, 2002; Williams et al., 1997) have compared directly the association between perceived discrimination and self-reported health outcomes across minority groups (African Americans, Asians, Hispanics), but few studies have investigated the association between perceived discrimination and health outcomes across a predominately Caucasian young adult population.

Conclusion

Despite this study's findings and substantial supportive literature, three significant gaps remain in the understanding of the influence of perceived discrimination on self-reported health. First, according to Brondolo et al. (2008), many do not understand well the extent to which the effects of perceived discrimination on self-reported health generalized across ethnic groups. One might expect the variations in health effects of perceived discrimination given socioeconomic and sociocultural differences among racial and ethnic groups. According to Williams and Mohammed (2009), the forces driving immigration and affecting acculturation likely influence the context in which a group experiences discrimination.

Second, researchers do not have a full understanding of various perceived discrimination experiences most clearly associated with negative health outcomes. The type of discrimination, the frequency of discriminatory incidents, the situation or context in which it occurs, and the degree to which it can impact health all are factors that can influence how one reacts to perceived discrimination. For example, according to Brondolo et al. (2008), social exclusion of any type can lead to depression or isolation. In contrast, a physical threat and harassment may elicit anxiety or anger, producing a fight or flight response. Brondolo (2008) demonstrated different types of race related discrimination is associated with different patterns of coping responses and with different indices of physical and mental health. Brondolo (2008) suggested that different types of discrimination may produce different psychophysiological responses, which may ultimately result in different overall effects on health. This area of study warrants further research because the broader literature has not documented well the potential negative health effects of perceived discrimination.

Third, many do not understand the psychophysiological mechanisms through which perceived discrimination impacts self-reported health. There is substantial evidence in the literature to suggest that perceived discrimination relates to symptoms of depression and anxiety (Finch et al., 2001; Mays et al., 2007), both of which may have negative implications for physical health (McGrady et al., 2009). Controlling for measures of psychological distress sometimes reduces or eliminates the relationship between perceived discrimination and health. Therefore, it is possible that higher rates of perceived discrimination lead to decrements in self-reported physical health by increasing depression, anxiety, and psychophysiological changes that may accompany such psychological distress. Clark et al. (2004) and Krieger et al. (2005) suggested the

relationship between perceived discrimination and other indices of health as well as factors that diminish the perceived discrimination-health relationship, warrant additional in-depth research. What is clear in the literature is more study is necessary in order to clarify the missing pieces in the relationship between perceived discrimination and health issues.

Clarity, compassion, and understanding remain an elusive goal with regard to the patterns of perceived discrimination and racial disparities in health for each of the ethnic minority groups in the United States, which has had a long history of collecting and reporting health statistics by race or ethnicity (Williams et al., 2003). Racial health disparities exist, and there is an urgent need to identify health disparities according to gender, SEP, and sexual orientation as well. Brondolo et al (2008) theorized that race, gender, SEP, and sexual orientation-based discrimination associated with poor self-reported health for many minorities. Furthermore, these associations were due, at least in part, to the impact of social exclusion and threat on psychological functioning. The similar effect of perceived discrimination some observed across diverse ethnic groups suggested there was a particularly toxic element associated with race-related exclusion and threat that ultimately can degrade health. Understanding the mechanisms in which perceived discrimination or unfair treatment affect a range of health outcomes can permit the development of more targeted and effective interventions for all resulting in improved health outcomes.

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Discussion Questions

1. Should future studies examine the types and contexts of perceived discrimination; which can affect the psychological well-being of minority youth and adolescents?
2. Can different types of discrimination produce different psychophysiological responses? Why, or why not?
3. Which particular types of discrimination are associated with health status among specific minority groups in the United States?

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Development and Evaluation of a Team Building Intervention with a U.S. Collegiate Rugby Team: A Mixed Methods Approach

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Abstract

The researchers conducted a two-phase mixed methods study to identify team cohesion weaknesses in a collegiate rugby team and to determine if, and how, an innovative short-term sport psychology intervention could facilitate cohesion. A Performance Enhancement Consultant (PEC) spent the first 16 weeks of the season with a U.S. collegiate club rugby team collecting quantitative and qualitative data on team cohesion. Based on the initial findings, the researchers selected a challenge activity as an ideal way of addressing the team's multiple cohesion shortcomings in a single day workshop. Following the intervention, the PEC collected quantitative and qualitative data at two different times: approximately one week following the intervention and approximately ten weeks following the intervention. Data revealed significant immediate and long-term increases in team cohesion following the intervention. Additionally, athletes noted the intervention (a) provided them with effective techniques to utilize while performing together, and (b) utilized an innovative design.

Keywords: team cohesion, rugby, mixed methods, college athletes

Introduction

Players, coaches, and other practitioners have often stated that team cohesion positively affects performance (Carron, Colman, Wheeler, & Stevens, 2002; Loughhead & Hardy, 2006). While most team building interventions aim to enhance team performance by improving team processes (Hardy & Crace, 1997), Carron and Spink (1993) created a team building framework in which team cohesion is the outcome variable of primary interest. The focus of this study was to enhance team cohesion through a short-term team building intervention.

The sport and exercise psychology literature defines cohesion as: “a dynamic process that is reflected in the tendency of a group to stick together and remain united in the pursuit of its instrumental objectives and/or for the satisfaction of member affective needs” (Carron, Brawley, & Widmeyer, 1998, p. 213). There are two types of cohesion: task and social cohesion. Task cohesion is a group having a common goal or task that they are striving for, while social cohesion is the motivation of a group of individuals to maintain and develop social relationships among each other (Razafimbola, 2009).

Developing team cohesion is a dynamic process that involves numerous factors. Carron (1982) developed a conceptual framework of team cohesion that practitioners frequently apply to the sport and exercise setting. Researchers identified the following factors as antecedents contributing to cohesion: environmental, personal, leadership, and group (Carron, 1982). Environmental factors consist of elements such as the organizational system and the size of the group. Widmeyer, Brawley, and Carron (1990) conducted a study of the effects of group size on cohesion and found an inverse relationship between group size and cohesion. As the group size increased, perceptions of cohesion decreased. Work output, anxiety, task-motivation (i.e., completion of group’s tasks), and affiliation motivation, or establishing and maintaining happy relationships are personal factors. Individuals who perceive their team to have high task cohesion also display a higher work output (Loughhead & Hardy, 2006). Leadership factors consist of leader behavior and leadership style. Multiple studies have found a positive relationship between positive coaching behaviors and leadership style and both task and social cohesion (Loughhead & Hardy, 2006; Price & Weiss, 2013). Finally, group norms, roles, stability of the group, and productivity are group factors that contribute to cohesion. Numerous studies have addressed the importance of establishing group norms and roles to increase cohesion (Benson, Eys, Surya, Dawson, & Schneider, 2013; Eys & Carron, 2001; Martin, Paradis, Eys, & Evans, 2013). Thus, the literature on cohesion in sports teams has identified cohesive teams as having clear and unambiguous roles, well-defined group norms, common goals, a group identity, effective communication, group synergy, shared responsibility and accountability, trust, and respect (Martin et al., 2013; Razafimbola, 2009; Yukelson, 1997).

Team building is one of the most effective methods of putting group dynamics theory and research, specifically team cohesion, into practice (Gill & Williams, 2008; Martin et al., 2013). Yukelson (1997) proposed a model for a direct approach to team building, consisting of an assessment stage, education stage, brainstorming stage, and culminating in the implementation stage. Yukelson recommends that, to conduct a more complete needs assessment, the consultant should conduct observations and interview coaches, players, and support personnel to gather

information about the team. The education stage should consist of helping the athletes, coaches, and support personnel gain an understanding of both sport psychology and team cohesion. Yukelson then suggests the next stage be a brainstorming stage involving the sport psychology consultant, athletes, coaches, and support personnel to develop awareness of what the team needs to become more cohesive and more successful. Finally, the involved parties implement the plan to improve cohesion as they have outlined in the brainstorming stage.

Research indicates a positive relationship between cohesion and athletic performance, although the strength of this relationship is unclear. Carron et al. (2002) conducted a meta-analysis with 46 articles on team cohesion in sport, and found a significant moderate-large relationship between performance and both task and social cohesion. Carron et al. (2002) also found a positive relationship between performance and both task and social cohesion. These findings imply that team cohesion interventions should target both task and social cohesion.

In an attempt to explain the relationship between cohesion and performance, Carron and Chelladurai (1981) claimed that type of sport could mediate the effect of cohesion on performance. They contended that the relationship between cohesion and performance is positive and stronger in highly interactive teams (e.g., basketball, soccer, football, volleyball, rugby). Voight and Callahan (2001) conducted team building interventions with two separate National Collegiate Athletic Association (NCAA) Division 1 women's soccer teams. Athletes in the study evaluated the direct team building approach that Yukelson (1997) proposed very highly. Additionally, athletes reported increases in both individual and team performance following the team building intervention. Therefore, the researchers elected to implement a direct approach to team building, following Yukelson's model, with the team in this study.

Research often has found short-term team building interventions in sport to be less effective than long-term interventions, but often the circumstances or resources do not allow practitioners or researchers to implement a comprehensive long-term intervention (Weinberg & Williams, 2001). Therefore, the researchers were particularly interested in exploring whether utilizing an innovative design could improve the effectiveness of short-term team building interventions.

Purpose

The researchers had multiple purposes for conducting this research, based on Newman, Ridenour, Newman, and DeMarco's (2003) typology of research purposes. One purpose was to inform the team's athletes and coaching staff of the team's weaknesses in cohesion. Another aim was to measure change in team cohesion by testing if a short-term team building intervention targeting the cohesion weaknesses the Performance Enhancement Consultant (PEC) identified from Phase 1 could increase team cohesion both immediately following the intervention and at the end of the season. The final purpose was to add to the knowledge base of team building intervention effectiveness, and improve practice and influence change in developing and implementing short-term team building interventions. The studies accomplished these purposes through the following research questions:

1. To what extent do the quantitative and qualitative data converge to identify the weaknesses in team cohesion and facilitate the design of the intervention?
2. Can a short-term sport psychology intervention utilizing the Team Building Race design affect team cohesion in a U.S. collegiate club rugby team?
3. How does a short-term sport psychology intervention utilizing the Team Building Race design affect team cohesion in a U.S. collegiate club rugby team?
4. In what ways do the qualitative data help explain the quantitative results?

Method

The PEC, who is a certified consultant through the Association of Applied Sport Psychology (AASP) and has more than seven years of experience consulting with highly interactive teams, including rugby, began working with the rugby team at the beginning of its season. After meeting with the new coach, the PEC decided to spend the first 16 weeks collecting data regarding team cohesion via observations, interviews, and additional quantitative measures. The PEC then reserved the second 16 week period, which was the most competitive part of the team's season, for implementing services deemed necessary following the initial data collection period.

Research Design

The researchers determined a two-phase embedded design was the most appropriate for this study (Creswell & Plano-Clark, 2006). They selected a mixed methods approach to gain a more comprehensive picture of cohesion weaknesses, enhance the validity of the findings by checking the results of the quantitative data against the results of the qualitative data, and guide the development of the intervention. Collecting both quantitative and qualitative data separately allowed the researchers to combine the strengths of the quantitative and qualitative approaches, while minimizing the weaknesses associated with each method (Creswell, 2009). Additionally, the design of Phase 2 allowed the researchers to “simultaneously ask confirmatory and exploratory questions and therefore verify and generate theory in the same study” (Teddlie & Tashakkori, 2009, p. 33). Results from the quantitative data allowed the researchers to determine if a short-term team building intervention could facilitate team cohesion. The qualitative component then allowed the researchers to better understand and interpret how the intervention increased team cohesion, and why certain aspects of team cohesion increased more than others.

Participants

Nineteen male collegiate rugby players on one team and the team's coach participated in this study. Athletes were between the ages of 18 and 23 ($M = 19.5$) and reported having between 0 and 7 years of experience competing in rugby ($M = 2.3$). Two athletes held formal leadership positions on the team, ten athletes were returning to play from the previous year, and nine athletes were in their first season with the team. The coach had more than four years of playing and coaching experience, but was in his first season as head coach of this team. The researchers utilized pseudonyms to ensure the anonymity of the participants.

Phase 1

Quantitative Data Collection

Procedures. Following Institutional Review Board (IRB) approval, all 19 athletes completed the Group Environment Questionnaire (GEQ; Carron, Widmeyer, & Brawley, 1985) during a team meeting towards the end of the first 16-week period.

Instrumentation. The researchers selected the GEQ to measure team cohesion, as it is currently the best measure of cohesion in sport (Loughhead & Hardy, 2006), and typically researchers and practitioners alike use it to measure cohesion in Carron and Spink's (1993) team building framework. The GEQ is an 18-item self-report measure that contains four different aspects of cohesion: individual attractions to the group-task (ATG-T), group integration-task (GI-T), individual attractions to the group-social (ATG-S), and group integration-social (GI-S) (Carron et al., 1985). Athletes respond to GEQ items on a 9-point Likert scale anchored by 1 (strongly disagree) and 9 (strongly agree), so higher scores represent stronger perceptions of cohesion (Carron et al., 1985). Numerous studies have examined the psychometric properties of the GEQ and have found both high reliability and validity (e.g., Brawley, Carron, & Widmeyer, 1987; Eyes & Carron, 2001; Li & Harmer, 1996; Widmeyer, Brawley, & Carron, 1990).

Qualitative Data Collection

Procedures. The PEC collected qualitative data via ten observations during eight practices and two games, and seven face-to face interviews with six athletes and one coach. The PEC deemed an ethnographic perspective the most appropriate because the purpose of this study was to inform constituencies of the cohesion weaknesses in this particular group of athletes.

Observations. The PEC took a participant as observer role while conducting observations, thus the observation role was secondary to the role of consultant (Creswell, 2009). Observations took place on the team's rugby field, for both practices and games. The coach was aware of the specific purpose for conducting the observations. However, the PEC only told the athletes that the PEC would be observing practices and games to gather information to improve the team's performance. Furthermore, to reduce social desirability bias, the athletes did not know the purpose of the observations was to gather information regarding team cohesion. Eight practice observations lasted approximately one hour and took place over the span of two months. The PEC conducted two observations during the team's games: These observations lasted approximately two hours each and took place two weeks apart. During practice observations, the PEC sat on the bleachers next to the team or stood on the field with the team, and wrote extensive field notes. During game observations, the PEC wore the same attire as the coach, and stood on the sideline with the team, writing field notes. The protocol for the field notes consisted of multiple pages of notes divided into segments for descriptive notes, reflective notes, and demographic information (Creswell, 2009).

Interviews. The PEC conducted seven interviews with six athletes and one coach. Interviews with the players lasted between 15 and 40 minutes ($M = 25.1$), and the interview with the coach lasted one hour. The PEC used stratified purposive sampling to ensure she conducted interviews with veterans and novices, starters and non-starters, and leaders and non-leaders. The researchers utilized informal conversation interviews to begin building rapport with

the athletes and coach and to ensure spontaneous responses (Patton, 2002). The PEC conducted interviews with athletes before, during, or after practice on the rugby field. The PEC conducted interviews out of hearing distance from other athletes and the coach to protect confidentiality. The PEC was simultaneously conducting short meetings with players' in the same setting to build rapport. Thus, the PEC did not reveal the topic of the interview to other athletes or to the coach. The interview with the coach took place on the rugby field after a practice. Interviews began with an open-ended question, such as, "Please tell me about the team this season," and responses led to follow-up questions more specific to team cohesion, such as, "Can you give an example when the team was not able to perform well together?" or "What do you mean when you say the team is divided?" The PEC did not tape-record or videotape the interviews so athletes would feel more comfortable disclosing information. However, the PEC did take extensive notes, and thus paraphrased answers. Finally, the PEC recorded direct quotations only when possible and necessary.

Results and Discussion

Quantitative. The researchers screened the quantitative data using SPSS v17.0; there were no missing values or outliers identified, nor were there violations of normality. Following the data screening, the researchers calculated descriptive statistics to examine the data and identify potential patterns. Means and standard deviations of the four GEQ subscales were on the low end of the 9-point Likert scale (see Table 1).

Table 1
Phase 1 and 2 Descriptives for GEQ Subscales

Subscale	Phase 1		Phase 2 Time 1		Phase 2 Time 2	
	M	SD	M	SD	M	SD
GIT	3.96	0.97	4.92	0.81	6.76	0.5
GIS	5.07	1.38	6.07	1.25	7.46	0.82
ATGT	2.85	0.74	5.92	0.46	7.25	0.44
ATGS	3.04	1.11	5.03	0.78	7.26	0.5

Qualitative. The PEC analyzed field notes and interview notes using the constant comparative method to determine the cohesion weaknesses of this particular collegiate rugby team. The PEC separated the text into meaningful units of information, and examined the data for similarities and differences and then separated text into categories or themes (Teddlie & Tashakkori, 2009). This process continued until the PEC grouped all text segments into themes with maximum between-theme variation and minimum within-theme variation. Once no new categories emerged, the PEC assumed saturation.

The researchers established trustworthiness through member checking, triangulation of data sources, and investigator triangulation (Teddlie & Tashakkori, 2009). The researchers performed member checking by asking each participant they interviewed to read over the PEC's notes from the interview to verify that the PEC had recorded and interpreted correctly what the interviewee had intended to say. In addition, they triangulated the data sources by collecting data

from multiple data sources (i.e., multiple interviews and observations). Both the PEC and a doctoral student independently analyzed the data, and then discussed and agreed on the themes to accomplish investigator triangulation. The independent analyses revealed a high degree of consistency with respect to development of themes, and the researchers resolved disagreements by questioning and challenging the appropriateness until they reached an agreement. Finally, the researchers recorded thick descriptions of context to “provide evidence for the transferability of interpretations and conclusions from QUAL investigations” (Teddlie & Tashakkori, 2009, p. 213).

Following these data analyses, the researchers compared results from both the qualitative and quantitative data. The GEQ, observations, and interviews all revealed the team exhibited weaknesses in both task and social cohesion. Specifically, the researchers identified the following themes from the data as significant weaknesses: leadership, communication, role incongruity, and lack of team identity and goals.

Leadership. All six athletes interviewed identified the lack of strong leadership as a team weakness. The coach, as well as four of the six athletes the researchers interviewed, described this weakness in leadership as resulting from the team composition, pointing out that the team consisted of many new players and very few veteran athletes. Younger athletes also described how they felt there were no veteran athletes they could look up to and emulate on the team. The PEC also observed a lack of strong leadership was a recurring theme as well. The PEC noted that during team huddles in both practices and games, athletes frequently looked around at each other, as if waiting for someone else to begin speaking, or give instructions. During practices, athletes would rarely offer to help new teammates learn the game or style of play, unless directed to by the coach. The PEC also observed that when mistakes occurred during either practices or games, the leaders did not attempt to motivate the athletes to continue putting forth effort.

Communication. Another theme that all six athletes and the coach identified as a significant team weakness was lack of effective communication. During games, athletes described when one teammate attempted to pass the ball to another teammate, two teammates then tried to catch the ball at the same time, and the other team recovered the ball. The PEC also observed several instances during games when an athlete would attempt to pass the ball without looking to another teammate, only to find the teammate was in another location on the field, resulting in another mistake. Additionally, in both games, the PEC observed athletes arguing with each other over which plays to run during games, and any verbal communication the PEC overheard taking place on the field was typically negative, such as “No! How could you drop that pass?” Only one in approximately every ten comments heard in practices or games were either positive or instructional.

Role incongruity. During the interview, the coach indicated that other than the team captain, athletes did not have specific roles on the team. He suggested the veteran athletes should “know their role.” Both veteran and rookie athletes stated they were not aware of what their role was within the team in general, and many athletes said they were not aware of their role even on offense, on defense, or in specific game plays. The PEC observed the coach giving different athletes the same roles and responsibilities during specific plays in seven of the eight practices the PEC observed. Athletes described this as “very confusing.” Ryan, a veteran athlete said it was difficult to keep track of what everyone was supposed to be doing in every play, when every time a specific play was practiced, he was supposed to be doing something different. Rookies also indicated they felt confused because, when the coach substituted them during

games, the coach would instruct the player frequently to play a different position, making it challenging for them to learn the game and the responsibilities of any given position.

Lack of team identity and goals. The coach described the team goal as making it to Nationals. However, all six athletes the researchers interviewed indicated that not everyone on the team seemed to be 'on the same page.' Ryan and Mike, two veteran athletes, described how they felt some of the new athletes to the team were not concerned with winning at all and did not understand the importance of being the best team in the state. Kevin, one of the younger athletes, said some of the team leaders told him and some of the other rookies that the focus this year would be to work on skill development. Yet another rookie, Andrew, stated the team did not have a goal at all. Finally, Brent, a veteran athlete described the team make-up as "a bunch of guys, not really a team."

Once the researchers identified weaknesses in team cohesion, the PEC met with coaches, athletes, and consulted with several other PECs as well to brainstorm the needs of the team to become more cohesive and more successful. With the limited resources available, the PEC planned one full day to implement a brief team building intervention with the entire team at the very start of the second 16-week period. Throughout the remainder of the second 16-week period, the PEC planned to continue to meet with athletes on an individual basis to provide consulting services as necessary.

Intervention Development

The coach expressed he wanted the intervention to be fun, not feel like a workshop and performed in an environment outside of the rugby field. Therefore, the researchers chose the design, named 'the Team Building Race,' as an ideal way to address multiple areas of weaknesses in a single day workshop (Barcza et al., 2009). The PEC chose the specific activities during the workshop to target the weaknesses a group of PECs with years of both playing and consulting experience with highly interactive teams identified from Phase 1. The researchers previously utilized the chosen activities in various past team building workshops or interventions. The PEC's chosen activities represented obstacles and challenges the team was likely to face during its competitive season (Janssen, 1999). The PEC put athletes into scenarios and situations targeting team weaknesses that required them to work together and overcome their weaknesses to be successful at the task. Previous research indicated that challenge activities, such as ropes courses or the Team Building Race of this study, provide coaches and athletes with insight about themselves and force teammates to communicate and work together under pressure to handle obstacles and adversity in a shortened timeframe (Janssen, 1999). Activities such as the Team Building Race increase teammate interaction outside of their sport environment (i.e., practices or games) and promote team bonding and togetherness, which is an important aspect of the group environment (Paradis & Martin, 2012).

The team's PEC, along with several other sport psychology graduate students with experience working with athletes, led the different activities. One graduate student served as the activity leader for each activity and led semi-structured discussion questions and topics for his or her activity. The activity leaders asked any additional follow-up questions or other related questions they deemed necessary. The PEC also instructed activity leaders to take field notes during or after each group completed the activity, with specific focus on the task and social cohesion topics the PEC previously identified as cohesion weaknesses.

At the beginning of the day, the PEC split the athletes into four groups of approximately five players in each group. The PEC purposely assigned athletes to groups so each group contained a mix of different positions (i.e., forwards and backs), a mix of playing status (i.e., starters and nonstarters), and evenly distributed team leaders among the different groups. The PEC then gave the groups the following instructions:

“You will have six total stations to complete throughout the day today. Please complete the stations as quickly and accurately as possible. In just a moment, each group will be given an envelope with a map of the location of each station indicated by a dot, and a clue that will lead you to your first station. After successful completion of each station, you will be given an envelope with a clue to your next station.”

A description of the stations the PEC used during the intervention is below. Each station ended with a discussion on how to apply the concepts and ideas learned to their rugby team.

Trust Obstacle Course

The researchers chose this station to target leadership and communication. They nominated one group member to be the group leader. They blindfolded the remaining group members, and instructed them to form a single file line and hold onto the shoulders of the person in front of them. The activity leader informed the athlete leader, standing in a stationary position outside of the obstacle course, to navigate the group successfully through the obstacle course.

Building with Roles

The researchers selected this station to target role congruity, leadership, and communication. The activity leader assigned each group member a role and gave each athlete an index card with specific instructions on how to build a block structure, according to their role. The different roles included captain, veteran, rookie, and substitute(s). The activity leader instructed the athletes to not discuss or share the information on their card with anyone else. The captain's card had the most detailed instructions and a picture of what the final structure should look like. The veteran's card included detailed instructions, but no picture. Both the rookie and substitute's cards included only very brief instructions. The substitutes began the activity only observing on the side, while the other group members attempted to build the structure. Halfway through the task, the activity leader instructed the captain and veteran that they both sustained an injury and must leave the activity. The substitutes took their places building the structure. The sport psychology graduate student leading the activity observed if the group members worked together to help each other complete the task, and if the two “injured” group members continued to help their teammates from the side.

Human Pedestal

The researchers selected this station to address communication, leadership, and role congruity. The activity leader instructed group members to lie down on their backs and form a circle with their feet in the middle and straight up in the air to form a pedestal. The activity

leader then placed a bucket filled with water on top of their feet. The activity leader instructed group members to take off the shoes of the teammate to their right without standing up, and without receiving assistance from any other group member. The activity leader instructed some groups that completed the task easily to then put their teammates' shoes back on in the same fashion.

Commitment Egg Relay

The researchers chose this station to address communication. The activity leader paired group members up and then gave the pairs separate instructions for the activity. The activity leader told one member from each pair that the activity was a competition and that the goal was to beat all the other pairs. The activity leader told the second member from each pair that they should complete the task with minimal commitment; they should not try very hard, should make mistakes frequently, but should not let their partner know they were trying to fail. The activity leader provided each partner with a spoon: The first partner ran up a hill carrying the egg behind his back and then transferred the egg to the second partner, who completed the same task.

Role Understanding through Artwork

The researchers selected this station to target role congruity. The activity leader provided group members pens, crayons, and paper, and instructed the athletes to draw a symbol or picture to represent best their role on the team. Upon completion, the activity leader then instructed group members to explain to the group why they chose to draw their image. The group then gave each member feedback about why the image best represented his role on the team, or why another image might be a better representation. The activity leader asked group members if they felt comfortable with their role on the team and understood their role on the team, and what they could each contribute to the team.

Team Goals and Identity

After successful completion of the fifth station, each group's final clue led them back to the location where they had begun the day, where the coach and PEC were waiting. At this point, the PEC led the whole team in a debriefing of the day's activities, primarily focusing on how they could apply the skills and concepts they learned in the activities to the sport of rugby. The PEC also aided the team in formulating concrete process and performance goals for the spring season. Last, the PEC discussed the importance of creating a team identity, and the team elected to create a team motto it repeated at the end of every huddle during both games and practices.

Phase 2

Quantitative Data Collection

Procedures. The PEC collected both quantitative and qualitative data at two different points in time. Data the PEC collected during Time 1 occurred approximately one week

following the intervention; data the PEC collected during Time 2 occurred approximately ten weeks following the intervention.

Questionnaire. All 19 athletes completed the GEQ during a team meeting in a classroom five days after the intervention (Time 1). The PEC again administered the GEQ to the athletes approximately ten weeks after the intervention, at the end of their spring season (Time 2).

Qualitative Data Collection

Observations. The PEC observed two practices during Time 1, within one week following the intervention. The PEC collected data for Time 2 during the last month of the team's season, between six and ten weeks following the intervention. The PEC observed nine practices and three games during Time 2 data collection. The PEC again took a participant as observer role while conducting observations on the team's rugby field for both practices and games. The PEC did not tell the athletes the observations were specifically to gather data regarding team cohesion. The PEC's practice observations lasted approximately one hour, and the PEC's game observations lasted approximately two hours each. The PEC completed the same observation protocol as in Phase 1.

Interviews. The PEC interviewed four players during Time 1, within one week following the intervention. The PEC collected the data for Time 2 during the last two weeks of the team's season, between 10 and 12 weeks following the intervention. During Time 2, the PEC conducted face-to-face interviews with 8 players and 1 coach. The PEC's interviews with athletes lasted between 15 and 45 minutes ($M = 28.4$), and the interview with the coach lasted 30 minutes. The PEC used stratified purposive sampling to interview only athletes whose scores on the GEQ reflected the largest or smallest increases in team cohesion. Additionally, the PEC used stratified purposive sampling to select veterans and novices, starters and non-starters, and leaders and non-leaders. The PEC utilized the general interview guide approach to keep the interviews focused on the topic of team cohesion, but to allow the PEC more flexibility and to still maintain a conversational tone (Patton, 2002). The PEC conducted athlete interviews before, during, or after practice on the rugby field. The PEC's interview with the coach took place on the rugby field after a practice. The PEC's interviews with the athletes during Time 1 began with the question, "Have you noticed any changes within the team?" The PEC then asked athletes follow-up questions, such as, "What do you think contributed to these changes?" The PEC's interviews with athletes during Time 2 began with the question, "Tell me about the team at this point in the season." The PEC then asked follow-up questions to attempt to understand and clarify how and why the team cohesion had improved, such as, "What do you think led to the better communication?" or "How have the relationships between players improved?" The PEC did not tape-record or videotape interviews to help the athletes feel more comfortable disclosing information, but the PEC took extensive notes, paraphrased most answers, and recorded direct quotations only when possible and necessary.

Results

Quantitative. The researchers screened the quantitative data using SPSS v17.0 and did not identify missing values, outliers, or any violations of normality. Following the data screening, the researchers calculated mean scores for all four factors of the GEQ. See Table 1 for means and

standard deviations of the GEQ subscales. The researchers conducted a MANOVA to test the effect of the intervention on cohesion over time. Results revealed a significant time effect on cohesion (see Figure 1) $F(8, 104) = 24.90, p < .001$. Follow-up univariate ANOVAs also revealed significant differences across time on GIT, $F(2, 54) = 62.88, p < .001$, GIS, $F(2, 54) = 19.91, p < .001$, ATGT, $F(2, 54) = 305.37, p < .001$, and ATGS, $F(2, 54) = 122.32, p < .001$.

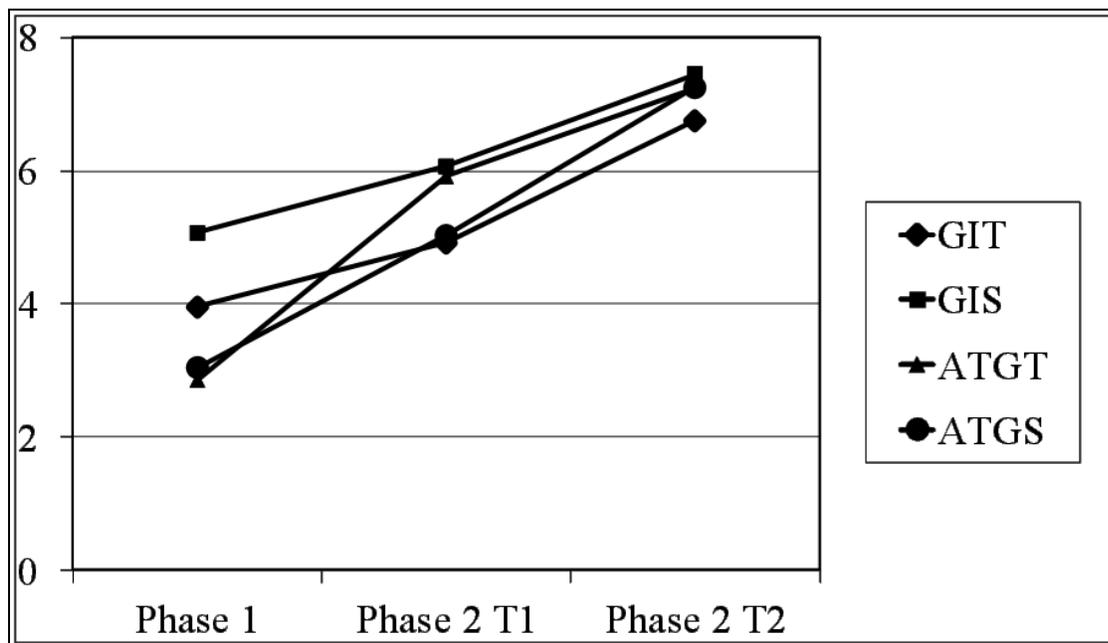


Figure 1. GEQ means by factor across Phase 1, Phase 2 Time 1, and Phase 2 Time 2.

Qualitative. The researchers again analyzed the qualitative field notes and interview notes using the constant comparative method. As in Phase 1, the researchers conducted member checking, triangulation of data sources, and investigator triangulation, and provided thick descriptions of context to determine trustworthiness. The GEQ, observations, and interviews revealed the team increased in both task and social cohesion. Specifically, the following themes emerged as significant changes resulting from the intervention: effective communication, strategies to recover from mistakes, better understanding of roles, and clear team goals. Another theme that emerged through the interview was the effectiveness of the intervention design.

Effective communication. In interviews one week following the intervention and at the end of the season, athletes described how the intervention provided them with more effective means of communicating with each other, especially while under pressure. In an interview one week after the intervention, Chris, a veteran athlete, described how previously the team communicated by yelling at each other. He said the team attempted to use more instructional comments during practice scrimmages, such as, “Everyone shift left.” Chris said when he felt himself getting frustrated at a teammate for making a mistake on the field, instead of yelling, he would take several deep breaths to calm himself, then walk over to the athlete individually and try to help him understand what could be done differently or better the next time to avoid that mistake. The PEC heard instructional comments more frequently than negative comments in eight of the nine practices and in all three games the PEC observed at the end of the season. Another rookie, Steven, noted that, while the team had improved a lot from the workshop, there

was still a long way to go. Steven said communication amongst teammates became more positive and instructional, but that communication from the coach to the athletes was still overwhelmingly negative.

Strategies to recover from mistakes. Prior to the intervention, the PEC observed several occasions during both practices and games, in which one mistake then led to either more mistakes being made or to one athlete yelling at another athlete. In a practice one week after the intervention, the PEC noticed a rookie athlete dropped a ball during a critical play that could have led to a try (i.e., a score) against his team. Ryan, one of the veteran athletes ran up to the rookie, handed him the dropped ball, and said, "It's cool, just make sure your hands are out and ready next time. Let's just restart right here." When the PEC asked Ryan about this incident after practice, he said that in particular, the 'Human pedestal' activity from the intervention had made him aware that before he yelled at a teammate for doing something wrong, he should put himself in the teammate's shoes and consider what feedback would be the most effective to remedy the situation. Two other veteran athletes also described using breathing techniques they learned during the Human Pedestal station to calm themselves when they felt frustrated with a teammate. Ten weeks after the intervention, the PEC also observed multiple instances in practices when a veteran player called for a huddle following a mistake before running the next play. In an interview at the end of the season, the coach also indicated that, while he still observed mistakes, he felt there were fewer occasions when one athlete's mistake would lead to "everyone making mistakes."

Better understanding of roles. Four rookie and two veteran athletes the PEC interviewed at the end of the season also believed the intervention led to a better understanding of everyone's role on the team in general. In an interview one week after the intervention, the coach said he did not realize the importance of giving each athlete a role and making each athlete feel as if they brought something to the team. At the next practice, the PEC observed the coach designating specific roles and responsibilities to the veteran athletes, such as, "On defense, I want you calling all the plays." The coach did not give rookie athletes specific roles, but when interviewed, they said the veteran athletes helped them to understand the best way they could contribute to the team. Adam, a rookie athlete, described how prior to the intervention he was not sure what he could contribute to the team because he was not a starter, but that several activities during the intervention and several conversations with veteran athletes helped him have a better understanding of how he could help, even from the bench.

Clear team goals. The PEC observed both the team captain, Eric, and another veteran athlete, Chris, monitoring and reminding teammates of the team goals at practices. Additionally, three of the rookie athletes stated they felt comfortable and more prepared, knowing the direction the team was heading and what is necessary to get there. In an interview one week following the intervention, the coach also discussed how he felt that working backwards from the team's ultimate goal of reaching Nationals and setting the process goals really made a difference in the amount of effort the athletes were putting into every practice. He stated, "The guys knowing what needs to be done every day seems to be holding them more accountable." Mark, a rookie athlete, also said that setting the process goals enabled himself and his teammates to know clearly what was expected of them on a daily basis.

Fun design. Athletes also reported that the design of the intervention helped make the day seem more fun for them. Three of the four athletes interviewed one week following the intervention indicated that when the coach first told them they would need to arrive on campus

on a Saturday for an 'event,' they were afraid they would be doing something tedious, such as watching film all day long. The athletes described that they were still wary once they arrived on campus and heard they would be participating in team building but that they were intrigued after the PEC explained the design and purpose of the workshop. They also said the workshop was very fun to participate in, and they would like to participate in a workshop the PEC designed more often. Jake, a veteran athlete, stated the intervention was very enjoyable because it appealed to their competitive side, yet teammates had to work together in activities other than rugby. Furthermore, five athletes the PEC interviewed during Time 2 indicated having more fun with each other outside of rugby and that socializing with each other outside of rugby functions made them like their teammates better as friends. Dan, a rookie athlete, even said he thought the whole workshop was "just for fun," until the PEC debriefed the team at the end of the day and he realized what he and his teammates had learned that they could then use on the rugby field.

Discussion

One purpose of this study was to inform constituencies, primarily the coaches and athletes of a particular U.S. collegiate men's rugby team, of the team's weaknesses in cohesion, in order to develop an effective intervention targeting the team's weaknesses in cohesion. The researchers addressed this purpose through research question one: To what extent do the quantitative and qualitative data converge to identify the weaknesses in team cohesion and facilitate the design of an intervention for a U.S. collegiate rugby team? Results from the GEQ, observations, and interviews the PEC collected during Phase 1 all revealed the team exhibited weaknesses in both task and social cohesion. Specifically, the researchers identified the following as significant cohesion weaknesses: leadership, communication, role incongruity, and lack of team identity and goals. The researchers selected the Team Building Race design of the intervention as an ideal way to address these multiple areas of weaknesses in a single day workshop, and the researchers chose the specific activities to target the identified weaknesses.

Another purpose of this study was to measure change in team cohesion, by testing if a short-term team building intervention targeting the team's cohesion weaknesses the PEC identified from Phase 1, could increase team cohesion both immediately following the intervention, and at the end of the season. The researchers accomplished this purpose through research question two: Can a short-term sport psychology intervention utilizing the Team Building Race design affect team cohesion in a U.S. collegiate club rugby team? The researchers noted significant immediate and long-term increases in team cohesion (see Figure 1) from the data. While it is not definitive that changes in cohesion were due to the intervention, both coach and athletes attributed the increased cohesion to the intervention. The cohesion increase and qualitative results provide support that the intervention at least partially contributed to the increased cohesion.

Although both coach and all athletes the PEC interviewed at the end of the season still attributed increases in cohesion to the intervention, other variables could have influenced or contributed to the changes in cohesion. For example, several athletes sustained injuries during the season, and while they were still a part of the team and continued to attend during practices and games, they were not participating during practices or games. In addition, the team's PEC continued to work with several athletes individually throughout the season, which could have provided those athletes with some skills or techniques they utilized with the rest of the team.

Since the PEC knew the design of the study and the overall intent and hypotheses, it is possible the PEC could have been unintentionally biased when observing the team interactions to focus on situations that demonstrated more cohesion. Another limitation was that the interviews were not tape recorded or videotaped. Although the PEC performed member checking to ensure she had correctly recorded and interpreted what the interviewees had said, it is possible the PEC missed or incorrectly interpreted some interview information.

Martin, Carron, and Burke (2009) found that team building interventions lasting less than two weeks had a non-significant impact on team cohesion, yet the single day team building intervention utilized in this study did significantly increase team cohesion. However, it is important to note this study, similar to other team cohesion in sport intervention studies, utilized a single team pre-post design and did not include a control group. Despite the lack of a control group, team cohesion studies in sport utilizing either a single team pre-post design or a quasi-experimental design have produced moderate, positive effect sizes (Martin et al., 2009). Although it is difficult to separate intervention effects from natural development, single team pre-post and quasi-experimental designs remain a common format, especially for practitioners in real-world settings (Barker, Mellalieu, McCarthy, Jones, & Moran, 2013). One reason this short-term intervention worked so well with this team could be because of the large number of new and young players on this team, as opposed to a team that has been together for a long period of time.

An additional aim was to add to the knowledge base of team building intervention effectiveness, and improve practice and influence change in developing and implementing team building interventions. The researchers addressed this purpose with research question three: How does a short-term sport psychology intervention affect team cohesion in a U.S. collegiate rugby team?; and research question four: In what ways do the qualitative data help explain the quantitative results? The qualitative data revealed many of the changes in team cohesion appeared to be the result of the skills and techniques the athletes and coach acquired during the intervention.

Researchers and practitioners often have found sport psychology techniques positively impact athlete and team performance (Weinberg & Gould, 2011). One reason this short-term intervention might have been so effective with this team was because sport psychology services were such a novel concept for the athletes. Nonetheless, the athletes who participated in the short-term sport psychology intervention were able to learn and utilize numerous techniques through this short-term intervention, such as goal setting and arousal regulation.

Athletes also reported the design of the intervention helped make the day seem more fun for them. Therefore, it is possible the Team Building Race design could have contributed to the effectiveness of the intervention. Researchers and practitioners found team building interventions focusing on psychological skills training produce more positive results than do team building interventions focused on interpersonal relations, or team building interventions focused on a combination of psychological skills training and interpersonal relations training (Martin et al., 2009). The Team Building Race design researchers utilized in this team building intervention primarily focused on aspects of psychological skills training. Athletes also reported enjoying the competitive nature of the intervention and how the intervention involved activities other than rugby. Numerous college football teams have utilized competitive activities other than football for successful team building (McCallum, 2001, as cited in Weinberg & Gould, 2011). Future studies should incorporate a control group and continue to investigate the effectiveness of this

Team Building Race design for a short-term team building intervention with other highly interactive teams.

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Discussion Questions

1. How could this type of team building intervention be applied to the business setting or with younger team members?
2. What are the challenges to implementing short-term team building interventions such as this?
3. What other activities could be utilized to address the team's weaknesses?

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A Review of Business Education around the Globe: Future Transitions

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Abstract

The aim of this study is to provide information on the current state of business education around the globe and to discuss ideas related with future progression in order to reveal strengths and weaknesses of educational aspects. In line with study aims, the authors conducted a literature survey and evaluated secondary data of program curriculums in Turkey. They then discussed ideas for future transitions with avenues for future applications in business education.

Keywords: business education worldwide, curriculum, Turkey.

Introduction

Before the evaluation of current business education and its weaknesses, the researchers direct attention to the development of business education phase by phase. According to Khuarana (2007), three major phases dominate the era in global terms. Before World War II, business schools had a vocational nature with limited emphasis on research. Courses focused on business functions such as accounting-finance, production-marketing and management. After World War II, the professionalization phase started. With the lead of Harvard Business School, scientific approaches in management and delivery of research-based theoretical knowledge became popular. However, this improvement was not enough to bring a better reputation for business schools in the academic world. By then, the increasing amount of research in the

management era started the third phase of business education. In this last phase, business schools moved to a more market-oriented perspective in order to increase the sustainability and profitability of companies with qualified business graduates and business-models. The capitalist trends caused underestimation of ethical issues and corporate social responsibility of business organizations. Profitability became the number one most important goal of many companies. Financial-success-oriented graduates focused on short-term profits, and ethical standards emerged. In summary, business graduates lacked innovativeness, problem solving skills, and critical thinking skills due to the characteristics of the last phase (Thomas, Lee, Thomas, & Wilson, 2014).

The bureaucratic nature of universities and autocratic deans who were willing to protect just the status quo became highly risk intolerant in the last phase. Thus, rather than keeping the educational content up-to-date and keeping up with changes in the business world, business schools lost the flexibility of adapting to environmental changes. One could think the trends that dominated business education had tunnel vision, which considered the business world to be isolated from society. However, business organizations are part of the society in which they operate. Those organizations already have become global, with the needs of a workforce that has social and leadership skills, cultural-adaptation, and innovative ways of performing work. The trend that isolated business organizations from society is as shallow as the one that sees business education made up just of business functions. An increasing number of business schools and graduates with high unemployment rates; old school business perspectives that cannot keep up with employer expectations; limited industry-academy interaction; lack of qualified academicians; the need to have global management education content with delivery of analytical, critical, and soft skills, which play an important role in social interaction and career advancement such as teamwork, collaboration, and decision making (Majid, Liming, Tong, & Rahiana, 2012). The mentioned issues became major problems of business education (Ersoy, [2003] 2007). As such, this article intends to provide information about the current problems of business education and to discuss remedies to make contributions for future transitions into higher quality business education.

Literature Survey on Business Education around the Globe

Evidence from Asia

The Indian Higher Education Council (Philip, 2009) approves the existence of 1,600 business schools and 180,000 MBA programs in India, which is a very large proportion of business schools around the world. Philip (2009) also summarizes the criticisms toward Indian business education as decreasing quality of education, lack of qualified academic staff, and increasing unemployment rates of business graduates. According to Dayal (2009), Indian business lectures are mostly theory oriented, and there is a lack of interaction among academics, which strongly prevents the integrity of program curriculums. Course outlines are not detailed, exams are based on memorization, and as a result, students lack analytical thinking skills. The limited interaction between the business world and education is another weakness of Indian business education. Raman (2009) suggests the improvement of working conditions in universities, hiring international academicians, and increasing international cooperation as remedies to overcome the weaknesses of Indian business education.

Jenster (2009) highlights the rising importance of China in the global economy. Accordingly, in the last two decades, the number of Chinese business schools has increased dramatically, in line with the increasing number of plants established in China. As such, the need for qualified Chinese managers has emerged. Contrary to the low employment rates in many countries, Chinese graduates can find jobs easily as the market is growing with increasing numbers of positions in plants. In particular, an MBA degree is a plus for getting hired. Another important point is the characteristics of Chinese culture, as they are very different from Europe and the United States of America (U.S.A.), the cultures of which have a strong influence on business education content. As such, China seems to need more relevant business content that academic staff trained in Chinese doctorate programs should deliver.

In Korea, the misfit between employer expectations and qualifications of business school graduates strongly challenges the high employment rates of business graduates. There also, an MBA degree is a plus for hiring as business schools increase their interaction with the business world mostly during MBA education. Kim (2009) suggests that besides university-industry cooperation, Korean business schools should increase their cooperation with international universities so business education can take a more global perspective. This suggestion is highly relevant for Malaysian universities as well (Chan TH & Brahmanda, 2009), since Industrial development and government support for Malaysian universities raise the demand for business graduates.

Evidence from Africa

Singh (2009) highlights the lack of African perspectives in business education due to the lack of qualified academic staff and very low number of research papers. As such, business education content is under the influence of United States and Japanese cultures, which is a weakness of African business education. In line with that, business schools are not capable of training qualified managers, and the quality of business education needs improvement.

Evidence from the U.S.A. and Australia

The U.S.A. leads business education content worldwide, with a huge number of research papers and the high quality of academic staff. Business education has increasing quality with the goals of reaching Association to Advance Collegiate Schools of Business (AACSB) standards and new trends in educational content such as ethics, leadership, and entrepreneurship (Abraham, 2009). Canadian business schools aim to train qualified managers with required skills and abilities. However, ethical scandals challenged their aim. In line with that, business ethics and corporate management have gained increasing attention in the curriculums. Other than that, course outlines are up to date (Nagarajan, 2009).

Rather than accreditation standards, Australian business schools are keen on developing their own quality standards. Up-to-date course content, new teaching methods, development of critical thinking, and problem solving skills will help to increase quality of business graduates (Teicher & Watson, 2009). Teicher and Douglas (2009) state the increasing number of international students is due to the more convenient and interesting education environment, which are strengths of Australian business education, compared to the high cost nature of U.S.A. business education.

Evidence from Europe

According to Hellfer (2009), French business education has a moderate level of quality. Rather than copying others and following Bologna standards, French schools need to establish their own standards. Baets (2009) thinks French business schools must be capable of delivering competence-based educational models, rather than functional business education, so graduates can have leadership skills with a more market oriented view. Another problem is business school graduates prefer to work in companies, rather than proceed to academic careers because of the undesirable characteristics of salary and working conditions in universities. Thus, improvement of academic working conditions will help to attract qualified academicians with international backgrounds (Hellfer, 2009).

Economic crises in Germany have diminished government support for universities, which has increased the costs of university education for students. Besides, long years spent in the university delays the age of entering work life (Kiesel, 2009). Spain is a powerful actor in business education; however, the lack of soft-skills development and analytical skills are the core weaknesses of its educational curriculum (Mendoza & Vives, 2009). Corno (2009) highlights the importance of entrepreneurship in Italy due to the Small-Medium Enterprise (SME) based structure of the economy. Thus, Italy needs to have more country-based approaches, rather than follow the U.S.A. models. For England, there are plenty of accredited business schools, but still it lacks country-based educational content. On the students' side, high expectations of salary and working conditions do not match employer offerings (Bickerstaffe, 2009). In Slovenia, copying U.S. models stopped nearly 20 years ago, and schools are keen on developing their own approaches for business education. Increasing the number of international students is a plus; however, the problems of the lack of qualified academicians, limited industry-academy cooperation, and inadequate organizational development skills of students still exist (Purg, 2009). Croatia needs qualified managers, thus the improvement of business education contents is a must (Kapusta, 2009). Russia has a large number of universities, but still lacks industry-academy cooperation and could be more innovative in order to keep educational content up-to-date (Leonova & Gusev, 2009).

Secondary Data Analysis on Turkish Business Education

Before drawing a brief picture of the current state of Turkish business education, the researchers affirm it is necessary to provide some statistics about the geographical dispersion of population and business plants to highlight the intensity of specific regions in terms of living and working conditions.

Table 1
Population among Geographical Regions

Region	Population	Percentage (%)
Mediterranean	9,766,093	12
Eastern Anatolia	5,906,564	7

Aegean	9,897,313	12
Southeastern Anatolia	8,647,529	11
Central Anatolia	12,226,350	16
Black Sea	7,572,465	10
Marmara	23,202,727	30
Total	77,219,041	100

Source: Turkish Institute of Statistics, 2013.

Table 1 shows the most crowded living region is Marmara, as the city of Istanbul is in the Marmara region, and 14 million Turkish people (18% of the Turkish population) live there. Thirteen cities are in Central Anatolia, which is the second most crowded region (13%), followed by the Aegean (12%) and Mediterranean (12%), which are located at the coasts of the Aegean and Mediterranean Seas. In comparison to western parts of the country, the east (Eastern Anatolia 7%, and Southeastern Anatolia 11%) and the coast of the Black Sea (Black Sea region 10%) are the regions where the population density is the lowest.

Table 2
Number of Plants among Geographical Regions

Region	Number of Plants at TOBB	Percentage (%)
Mediterranean	59	6
Eastern Anatolia	6	0.06
Aegean	122	12
Southeastern Anatolia	53	6
Central Anatolia	133	12
Black Sea	46	5
Marmara	527	56
Total	946	100

Source: Turkish Union of Chambers and Exchange Commodities, 2013.

The researchers include the Turkish Union of Chambers and Exchange Commodities (2013) database of 946 plants located among geographical regions to give an idea about the density of industrial movements around the country. Accordingly, Marmara is the first (527), as more than 50% of registered plants are located in this region, followed by Central Anatolia (133) and Aegean (122). Table 2 suggests population density seems to be related with the density of plant locations as the number of plants is least at the eastern part (Eastern Anatolia 6, and Southeastern Anatolia 53) and Black Sea (Karadeniz 46) coast of Turkey. Statistics suggest people prefer to live and work in the western parts of Turkey, rather than the Black Sea and eastern regions.

Table 3
Business Schools among Regions

Regions	Number of Business Schools			Quota		
	Public	Private	Total	Public	Private	Total
Mediterranean	18	7	25	1,810	64	1,874
Eastern Anatolia	24	0	24	1,775	0	1,775
Aegean	22	20	42	2,870	272	3,142
Southeastern Anatolia	16	6	22	978	87	1,065
Central Anatolia	44	60	104	3,955	961	4,916
Black Sea	35	7	42	3,240	110	3,350
Marmara	41	128	169	4,080	2,448	6,528
Total	200	228	408	18,708	3,942	22,650

Source: Student Selection and Placement Center, 2013a.

The majority of business schools and programs exist in the Marmara (169) and Central Anatolia regions (104), where population density is the highest. The Aegean and Black Sea regions (see 42 at both) follow, and the number of business schools are lowest in the Mediterranean (25) and east coast regions (Eastern Anatolia 24, and Southeastern Anatolia 22). Quotas are highest at the Marmara and Central Anatolia regions as well (see 6,528 and 4,916). The third highest quota belongs to the Black Sea region (3,350) and then the Aegean region (3,142). Quotas are lowest at the Mediterranean (1,874) and east coast regions (Eastern Anatolia 1,775, and Southeastern Anatolia 1,063). In 2013, the total quota of business schools was 22,650. Despite the fact that the number of private business programs are more than public ones (228 > 200), the majority of the quota for business schools belongs to public universities (82%), meaning public business schools hold more crowded classes.

Table 4
Business Colleges (2-Year Degree) among Regions

Regions	Number of Business Colleges			Quota		
	Public	Private	Total	Public	Private	Total
Mediterranean	41	0	41	2,215	0	2,215
Eastern Anatolia	34	0	34	1,425	0	1,425
Aegean	53	4	57	2,845	40	2,885
Southeastern Anatolia	26	0	26	1,280	0	1,280
Central Anatolia	42	6	48	2,835	70	2,905
Black Sea	55	0	55	3,585	0	3,585
Marmara	76	63	139	4,135	872	5,007
Total	327	73	400	18,320	982	19,352

Source: Student Selection and Placement Center, 2013a.

Business College numbers are highest in the Marmara region (139) and then the Aegean (57), Black Sea (55), and Central Anatolia (48) regions. Numbers decrease at the eastern coasts (Eastern Anatolia 34, and Southeastern Anatolia 26). Quatos are most at Marmara (4,135), Central Anatolia (3,585), Black Sea (2,905), Aegean (2,885), and Mediterranean (2,215), lowest at east coasts (Eastern Anatolia, 1,452; and Southeastern Anatolia 1,280). In 2013, the total quato of two-year business degree programs was 19,352, and the majority belongs to public universities (94%). Considering the number of students taking the university entrance exam in 2013 was 1,500,000, only 2.6% of those students could enter business schools. Even though common sense suggests the number of business school graduates and unemployment rates are high in Turkey, research the State Institute of Statistics conducted in 2012 indicates the employment rate of business school graduates was 80%, and the unemployment rate seems to be 14%. In addition, according to the *Journal of Ekonomist*, in 2013, the number of new entrants in 80 corporate companies was 45,000. Besides the fact that the Turkish economy is in a developmental stage, an increasing number of business plants might require increasing number of business graduates in the future.

Table 5
List of Courses in Four Leading Turkish Business Schools, 2013

Curriculum Courses	Leading Public Turkish Universities			
	Bogazici	Marmara	Istanbul	METU
Mathematics	2	2	3	1
Turkish, Academic Writing	2	2	2	2
Fine Arts, Sports	0	0	2	0
Foreign Language	0	0	2	0
History	2	3	2	2
Economy	5	4	4	1
Law	2	5	2	1
Statistics, Research	3	1	4	1
Psychology	1	0	0	0
Sociology	1	1	0	0
Finance	2	4	3	1
Accounting	1	10	6	1
Marketing	1	2	3	1
Information Technologies	2	4	3	3
Production	0	2	2	1
Human Resources	1	2	2	1
Political Sciences	2	0	1	0
Management	6	3	7	8
Electives	14	10	6	18
Graduation Dissertation	Yes	No	No	No
Total	47	55	54	42

Sources: Bogazici University School of Business, 2013; Istanbul University, 2013; Marmara University School of Business, 2013; Middle East Technical University, 2013.

The Bogazici Business School curriculum includes psychology and sociology as major courses, which creates a difference among others with regard to soft skills development. Besides, the number of electives is nearly one-third of the program, which gives students the opportunity to specialize in their areas of interest. Courses such as economic and political sciences might develop students' market orientation, and the least number of functional business courses such as finance and accounting lead the researchers to think the curriculum could be capable of training students in terms of skills development. Only in this one program is there a graduation thesis requirement, which could be leading students toward application of what they learned during their education.

The number of electives is highest at METU: one-third of the total curriculum. The majority of courses relate to management (see 8), some of which are taught in workshop sessions and some in lab settings. In order to increase the transferability of courses and to strengthen the link between industry and academic settings, lab work and workshops might be more effective than traditional classes. The curriculum of the Marmara Business School shows the largest number of courses (see 55), the majority in accounting and electives (see 10 for both). The program seems to provide students opportunities to specialize in their areas of interest, but still cannot give up the functional nature, as the number of accounting courses is equal to electives. Law and information technology courses are also larger in number, which diminished the balance of the curriculum. The Istanbul Business School has the least number of electives (see 6). The majority of courses are in accounting and management, but the other functional areas distribute normally as well. Accordingly, the traditional nature of business education is observed mostly in Istanbul University. Overall, Marmara University seems to be establishing a more skill-based perspective with the large number of electives, but it lacks a holistic list of courses. The METU Business School uses different teaching methods (workshops, lab work) with a large number of electives. In light of this information, Marmara and METU are trying to establish a skill-based approach. Finally, Bogazici University seems to be creating a difference with soft-skill based core courses, a large number of electives, and a graduation thesis requirement.

There seems to be a huge difference between Istanbul and Marmara versus Bogazici and METU with regard to the number of courses. This difference deepened the curiosity of the researchers as to why two universities preferred a more functional business education while two others established a more flexible approach. In this respect, the researchers decided to compare the quotas and entrance points of the four leading business schools in the year 2013.

Table 6
Quotas and Entrance Points of the Four Leading Turkish Business Schools

Business Schools	Quato	Base Point	Highest Point
Bogazici	110	482	535
METU	110	435	519
Marmara	225	335	376
Istanbul	335	323	372

Source: Student Selection and Placement Center, 2013a.

Statistics suggest the Istanbul Business School has the highest quato and lowest points among others, while Bogazici and METU Business Schools have the lowest quato and highest points. The Marmara Business School has the second highest quato and second lowest points. Based on the fact that the university entrance exam is highly predictive of student success and the number of students per classroom affects the delivery of courses, Istanbul and Marmara Business Schools seems to have disadvantages, compared to others. As such, the lower nature of students' entrance points and high quato of students could be diminishing the curriculum at both universities. Despite those disadvantages, research Secretrcv.com conducted in 2012 (Hastaoglu, 2014) suggests Istanbul University graduates have high employment rates, since Istanbul University has a good reputation as it is the most deeply rooted university in Turkey.

What about Others?

The transition in the Turkish business education curriculum deepened the curiosity of the researchers about the state of the business education curriculum worldwide. Thus, the researchers decided to choose the four leading business schools, which represent Asia, Europe, and North America with regard to their cultural characteristics and educational differences. We compared their curriculums in order to sharpen our focus on course contents. As such, the researchers investigated Tokyo University from Japan, Mannheim University from Europe, Berkeley University from the U.S.A., and Korean University Business School from Korea with regard to their business education curriculums.

Tokyo Business School requires 180 credits for a diploma in business administration, including 12 core courses, 6 major core courses, 4 courses in a specialization area, and 14 electives. Major areas are business and entrepreneurship, finance and economics, marketing, and management. It has a variety of specialization areas, namely Asian Management, European Management, Small Business Management, Sports Management, and Tourism Management. Core courses in the business and entrepreneurship domain focus on courses such as leadership, ethics, entrepreneurship, and management while the finance and economics domain includes more functional courses such as accounting and finance. Core courses in the marketing and management domain include more competency-based courses such as consumer behavior, organizational behavior, and marketing management. The program offers a variety of options that serve students' preferences related with future career goals. Those who would like to start up business could choose the entrepreneurship domain while those who would like to work in accounting or finance positions could choose the finance and economics domain. The marketing and management domain serves best those students who would be willing to build their social and managerial skills. The number of elective courses are more than the core courses, providing freedom for students to have knowledge in specific areas of interest.

Mannheim Business School requires 6 semesters of education with one semester devoted to international studies and two elective language courses that aim to prepare students for the global business area. It allows students to choose one more elective in addition to the two language electives. The rest of the core courses include finance, accounting, information systems, economics, marketing, and management domains. The portfolio of the courses seems to emphasize knowledge of business functions, rather than building managerial skills in a competency-based manner. The number of electives is less than many other business schools, seeming contradictory to the views related to the increasing number of electives and decreasing

number of core courses in business education. However, the shorter duration of the education, language courses, and international studies seems to be the strengths of the program.

Berkeley Business School requires at least 38 business units and 12 non-business units, including American History, Institutions, and American Culture courses as compulsory. Ten core courses related to finance, accounting, economics, marketing, and organizational behavior. Interestingly, it requires no management, information technology or human resources management course in the core courses list. However, the program offers a variety of selective courses in the domains of entrepreneurship, leadership, information technology, and marketing research.

Korean University Business School offers 4 semesters of education with major core and major elective courses taught in English or Korean. The curriculum is based on business functions, and major courses relate to accounting, finance, marketing, operations management, personnel management, and international management. Although the courses are function-based, major elective courses relate to more specific and recent issues such as business creation, Korean Business & Management, regional studies, consumer behavior, Internet marketing, and leadership seem to balance the traditionally vocational nature of the education. As such, the program intends to build students' knowledge of core business functions, to develop the students' abilities in soft skills, and to update their knowledge of Korean Business in the regional and global context.

Besides the criticisms toward the vocational nature of business education, which is not capable of developing soft skills and of keeping up with the changes in the global business world, business schools still seem to rely on delivering the knowledge of business functions. Technical skills seem to be the main concern; however, there is a tendency to deliver elective courses in the areas of international business, entrepreneurship, and soft skills. While some schools prefer to increase students' autonomy in terms of taking courses in their interest areas, some schools still strongly prefer to provide a basis of general business knowledge with more general areas of business functions. Based on the knowledge they gathered from business schools of Tokyo, Berkeley, Mannheim, and Korean University Business School, the researchers present a brief list of course topics on technical skills, and soft skills in Table 7. As a result of the researchers' investigation related to course lists of business schools in Turkey and around the globe in general, they list topics related with analytical skills and business functions mainly as core business courses, whereas more recent issues and soft-skill based courses are electives. The main difference between business schools concerns the number of core courses, the number of electives, the reliance on technical skills or international business, and the existence of specialization areas that require major and elective courses.

Table 7
Technical and Soft-Skill based Courses among Four Leading Business Schools

Technical Skill-based Course Topics	Soft Skill-based Course Topics
Management	Language courses
Marketing	Academic writing
Finance	Ethics
Accounting	Communication
Product, Operations Management	Conflict Management
Economics	Leadership
Business Law	Decision making
Maths & Statistics	Innovation
Information Systems	Entrepreneurship
Research Methods	Psychology
	Sociology
	Internet Marketing
	Consumer Behavior
	Advertising, Brand Management

Sources: Berkeley Business School, 2013; Mannheim Business School, 2013; Korean University Business School, 2013; Tokyo Business School, 2013.

Discussion

Literature survey and secondary data analyses lead the researchers to think business education worldwide has gone into a vicious circle. Fast track changes are happening in the way business operations take place. Technological advancements and globalization have been pushing business organizations to become flexible and innovative actors, increasing the awareness that organizations are important actors as part of the society in which they operate. As such, companies need employees who can think and act in more holistic terms with an emphasis on entrepreneurship, SME based business operations, ethics, leadership, corporate social responsibility, cultural awareness, cultural intelligence, and sustainability.

An increasing number of business schools seem to be incapable of developing students in terms of soft skills, and business schools still lack a good reputation due to limited interaction with industry. Business education has become a mass production industry, moving away from the ideal education model. Course contents focus strongly on out-of-date theoretical knowledge, hence limiting the development of critical and analytical thinking skills. To overcome those weaknesses, business education should be proactive and keep up with changes in industry to have more relevant course content; increase cooperation with business organizations and universities to increase the number of international academic staff and international students, which could develop cultural awareness and intelligence; develop country-based business models, rather than stick to U.S.A. models; replace theory-based courses with more interesting materials; and give students chances to conduct projects to apply the knowledge into real-life situations.

The major criticism for business education seems to be the vocational nature and business function-based curriculum of schools. As such, the researchers strongly recommend soft-skill

based courses with more applied lesson structures. However, the researchers affirm that business education should not underestimate core business functions as they are the backbone of organizations. The ways people perform jobs are changing, but business organizations still use accounting methods, have finance departments, have human resources management functions, and apply marketing strategies. As such, lecturers could embed business functions in the way they deliver the courses, but the researchers still affirm it is possible to develop soft skills with new methods of training. For business schools operating with a small number of students, the interaction between academic staff and students would be greater. For those, it is possible to conduct mentor programs, to lead social responsibility projects with company representatives and student groups, to use internships, and to establish student centers that could encourage innovative business ideas and games among students. Thus, it seems the financial resources of business schools, the quality of academic staff, and the smaller number of student groups would enable establishment of a variety of activities with a variety of course curriculums.

Business organizations seem to expect too much from new graduates. However, it does not seem very fair to expect that university settings could deliver every skill and any kind of knowledge. Due to the changing nature of organizations and the variety of jobs, every company could have different expectations from its workforce. The question is – can business schools stick with the specific set of skills every single company desires? Are business schools just vocational colleges? For instance, Holtzman and Kraft's (2011) study conducted in the New Jersey region suggests that managing time, oral communication skills, interpersonal skills, and knowledge of global issues were the most important factors a new graduate must have in the eyes of employers. Another study the same scholars conducted in 2010, again in the New Jersey region, suggests three different major areas of skills, namely writing, quantitative, and computer skills at work. Thus, the business world requires different set of skills, and skills development seems to be a great challenge for business educators. Instead of focusing on specific skills, they could keep the list broader in line with the vision of the business school and the characteristics of the country in which the school operates.

The key to becoming a successful business school seems to be becoming flexible, innovative, and socially responsible as an actor in society; increasing cooperation among industry; and conducting quality research that could act as remedies for business organizations' problems. In addition to country-based business models, international cooperation would help sharpen holistic thinking with regard to developing cultural intelligence of academic staff and students.

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Discussion Questions

1. How should business schools position themselves for a better reputation?
2. What are the weaknesses of business education in terms of curriculum development?
3. How could business schools establish new methods of teaching?

To Cite this Article

Tekarslan, E., & Erden, N. S. (2014, Summer). A review of business education around the globe: Future transitions. *Journal of Multidisciplinary Research*, 6(2), 49-64.

Student Corner

Using Evidence-Centered Design to Diagnose Proficiency in Solving Story Problems

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and

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Abstract

This article describes the application of a Bayesian network in an Evidence-Centered Design (ECD) framework to assess students' ability to solve arithmetic story problems. Within the mathematical models of ECD's Conceptual Assessment Framework, using Bayesian statistics updates the belief about proficiency. To diagnose problem-solving ability, the Bayesian network model uses evidence gathered about reading ability, schema recognition, and math ability to determine overall problem solving ability. Probability values support evidence of performance in each of these areas; new evidence of performance updates such values. These values classify students into three levels of proficiency: novice, intermediate, or advance.

Keywords: Bayesian network, conceptual assessment framework, Evidence-Centered Design, measurement model, evidence model, proficiency model, schema theory, story problems

Introduction

Having difficulties in solving word problems is the one of the most common reasons for weak mathematics performance (Kavkler, Magajna, & Babuder, 2014). Pólya (1957) suggests

that, for students to successfully solve word problems, they must understand the problem, devise a plan for solving them, and reflect on the results to determine if the result is practical and logical based on the information provided in the problem.

Pólya's (1957) work has generated a wide range of research on theories of word problem solving and strategies. For example, Briars and Larkin's (1984) information processing approach considers students as entities who process and report information, using a set of rules for absorption and modification of information. Kintsch and Greeno's (1985) text processing approach models comprehension of text and semantic knowledge in arithmetic problem-solving. Marshall, Pribe, and Smith's (1987) schema theory focuses on representing and classifying underlying semantic structures inherent in word problems using diagrams.

Literature Review

The National Council of Teachers of Mathematics (NCTM, 2000) describes word problems as a means of learning mathematics by providing opportunities to “acquire ways of thinking, habits of persistence and curiosity, and confidence in unfamiliar situations...” (p. 52). Problem solving provides students with intellectual challenges to enhance their mathematical development through conceptual understanding while fostering reasoning and mathematical communication abilities (Hiebert & Wearne, 1993).

According to the Kavkler, Magajna, and Babuder (2014) study, solving word problem is one of the most common problems of the students with mathematics learning difficulties since word problems depend on number of skills and various knowledge. Cooper and Sweller (1987) conceptualized that, for transference of required knowledge to occur, students must possess adequate levels of proficiency of mathematical rules for solving problems, ability to categorize problems with similar solutions, and ability to relate new problems to previously solved ones. The degree of success in solving problems is dependent on language proficiency, conceptual or procedural mathematical knowledge, coordination of necessary knowledge structures to solve the problem, and adequate reading strategies (Pape, 2004).

Jitendra (2008) underscores the importance of problem comprehension development and integration of concepts and procedures in schema-based instruction; students demonstrate problem comprehension when they can infer relationships between objects from semantic cues in the problem text to build representative models and to select appropriate mathematics operations for solving problems. As they accomplish mastery of mathematical problem-solving rules, they shift cognitive processes from solution details to identification of relationships between new and original problems and to planning (Fuchs, Fuchs, Finelli, Courey, & Hamlett, 2004).

Cooper and Sweller's (1987) description of problems with similar solutions into categories led to the development of schemas. Gick and Holyoak (1983) describe schemas as constructs that allow problem solvers to categorize groups of problems that require similar solutions.

Schema Theory

A story problem is “an abbreviated verbal account of a situation, providing some specific information to answer a stated question” (Marshall et al., 1987, p. 7). A schema approach to problem-solving requires students to recognize the problem context and use their knowledge to retrieve the embedded information in the story problem. Marshall et al. (1987) proposed five

distinct problem structures for classifying story problems; simple story problems fit into the *Change, Combine, Compare, Vary, and Transform* structures.

Purpose

To evaluate proficiency on a particular construct, test developers construct and administer tasks to students in an appropriate format (Mislevy, Steingber, & Almond, 2003). In diagnostic assessments, sufficient evidence must be accumulated from the tasks to make inferences about a student's strengths and limitations of the skills associated with construct proficiency for developmental purpose. In summative assessments, performance influences progress to another level of schooling or entrance into college. Thus, the ability to reason inductively about level of proficiency, based on observed performance on tasks, becomes important.

Evidence-Centered Design (ECD; Mislevy, Steinberg, & Almond, 2003) utilizes a Bayesian statistics approach to provide a valid assessment of a student's proficiency on a particular construct based on performance on tasks that have been constructed to measure it.

In this article, the researchers implement Evidence-Centered Design (Mislevy et al., 2003) approach to assessment to diagnose students' proficiency in solving story problems based on Marshall's (1987) study on schema theory. We hypothesize that story problem solving ability is a conjunctive relationship among reading ability, schema recognition, and math ability.

We constructed an ECD's *measurement model* to assess students' free responses to story problems, which implement Marshall et al.'s (1987) schema knowledge structures. The model should assist in diagnosing students' story problem-solving ability at a grain-size to extract "nuggets of evidence" (Mislevy et al., 2003, p. 25) from which claims about students' ability to solve story word problems can be made.

Conceptual Framework

The researchers illustrate their conceptual framework of the relationships among proficiency and skills variables associated with solving mathematics word problems in Figure 1.

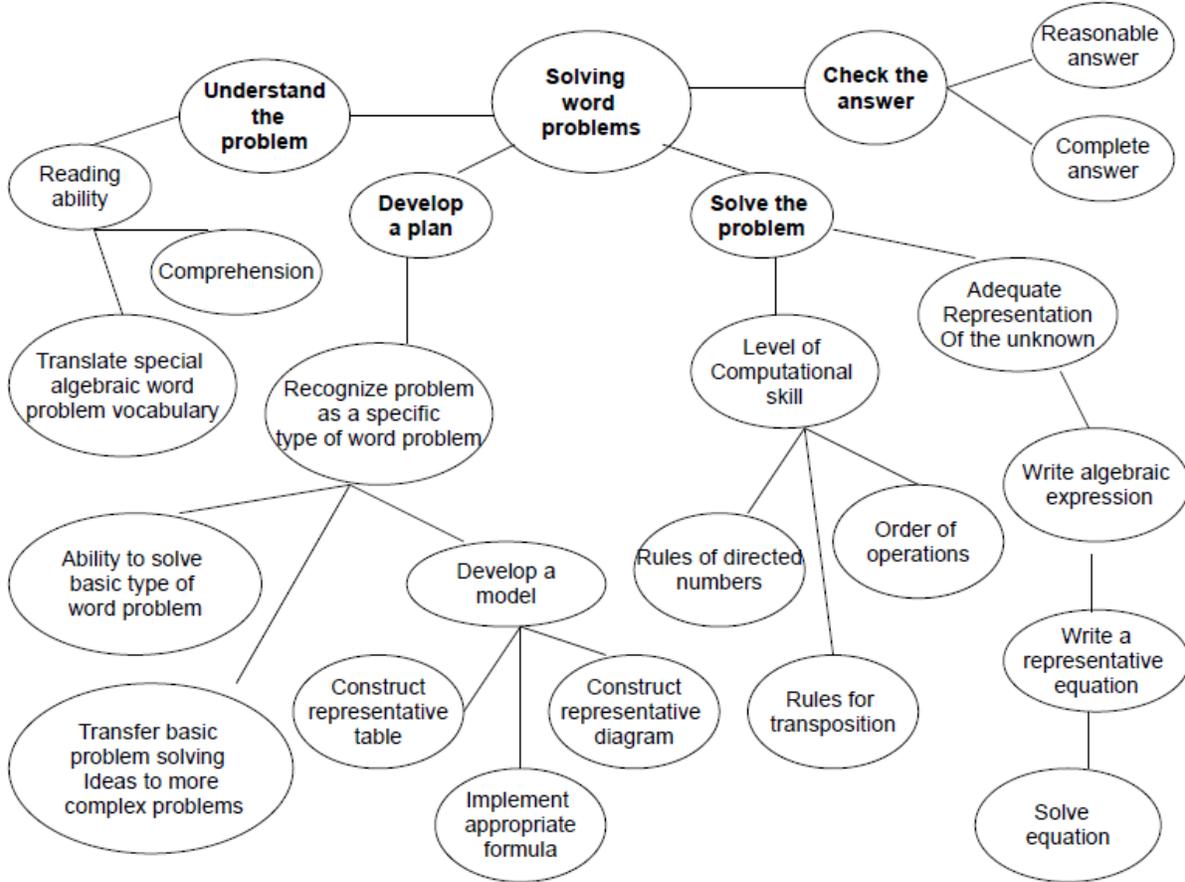


Figure 1: Conceptual Framework for Solving Word Problems Method

Development of the Measurement Model

Proficiency Model. The cognitive theory of mathematics problem-solving supports the mathematical model of the assessment (Almond et al., in press). The Proficiency Model in Figure 2 identifies the key relationships among reading ability, schema recognition, and math ability necessary for modeling and solving story problems as described in the literature (Jitendra, 2008; Marshall et al., 1987; Pape, 2004).

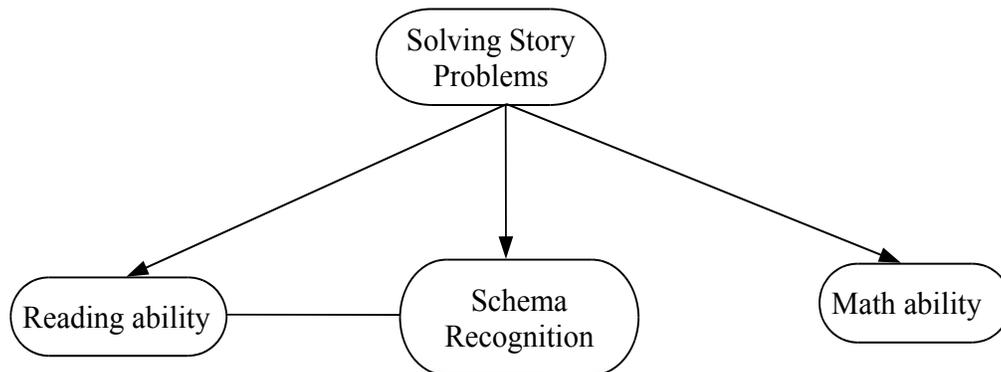
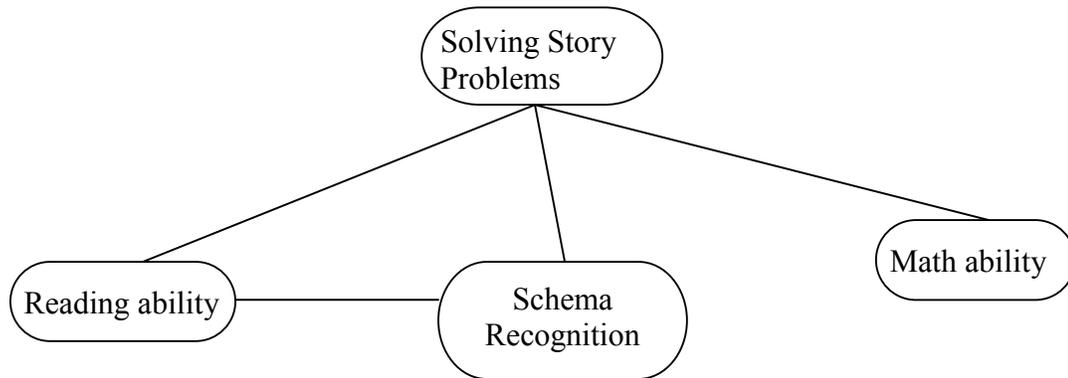


Figure 2: Proficiency Model for Solving Story Problems

Bayesian networks, such as those used in Evidence-Centered Design, implement graph theory to represent joint distribution and conditional independence relationships among variables in a model. They provide content experts with an adequate representation of these relationships that they are comfortable working with (Almond et al., in press). The conditional independence relationships lead to efficient computation algorithms. The undirected moralized graph in Figure 3 illustrates the interdependencies among variables.



Figures 3: Moralized Undirected Graph for Solving Story Problems

We define overall potential levels of math proficiency in solving story problems in Table 1.

Table 1
Solving Story Problems Proficiency Levels

Proficiency Levels	Probability Value
Advance	.34
Intermediate	.33
Novice	.33

We define levels of proficiency for reading ability, schema recognition, and math ability needed to solve story problems in Table 2.

Table 2
Probabilities associated with Proficiency Levels

Proficiency Levels	Probability Values			
	Level 4	Level 3	Level 2	Level 1
Advance	.50	.30	.15	.05
Intermediate	.30	.25	.25	.20
Novice	.05	.15	.30	.50

Evidence Model

The evaluation component of the Evidence Model involves specification of “particular forms, evaluation procedures, and formal definitions of observable variables” (Mislevy et al., 2003, p. 37). It assists in identifying and evaluating the work that the student produces, known as the work product, whether that work is selection of choices on a multiple choice assessment or one in which human raters use rubrics to score the student’s extended responses.

Human raters can score work products for formative and diagnostic purposes by human raters. We develop the grading rubric in Table 3 using information from the conceptual framework in Figure 3.

Table 3
Rubric for Scoring Story Problems

Reading Ability/ Schema Recognition		The student
0	1	Translates special algebraic word problem vocabulary
0	1	Selects appropriate schema
0	1	Correctly labels sections of the schema with correct information
Math Ability		
0	1	Writes a representative equation from the information
0	1	Appropriately applies rules of directed numbers
0	1	Appropriately applies rules for transposition
0	1	Provides a complete answer
0	1	Provides a reasonable answer

We illustrate the evidence models in Figure 4.

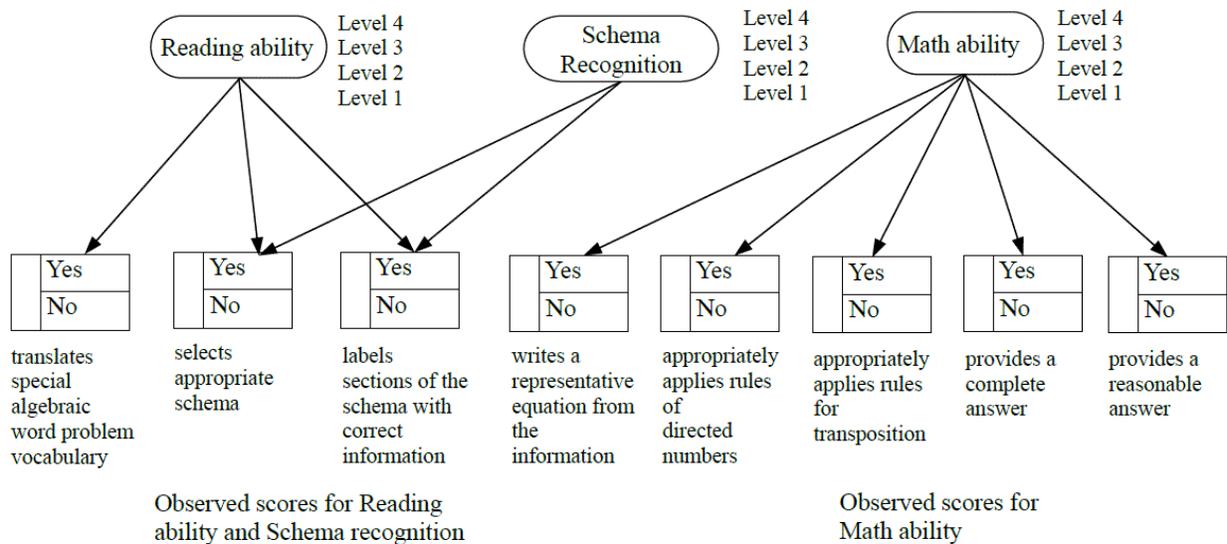


Figure 4: Evidence Models for Solving Story Problems

We employed the Bayesian Network software *Netica 5.12* (NorSys Software Corp, 2011) to develop the full Bayesian network, as shown in Figure 5.

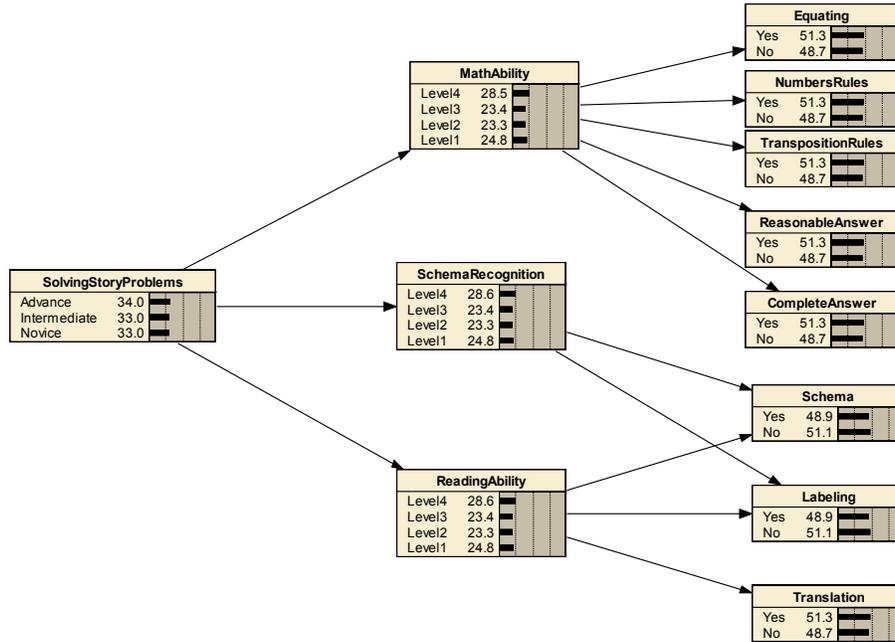


Figure 5: Bayesian network with Proficiency Model and Evidence Models

Results

Assessment of Story Problem Proficiency from Tasks

In this section, we used the story problem model to illustrate how inductive reasoning can be conceptually applied to determine the state of a student’s proficiency in solving story problems from observed performance on an assigned task.

The Bayesian model is a conjunctive model: A student needs adequate competency in reading ability, schema recognition ability, and math ability to successfully solve story problems. Lack of either one or a combination of these abilities results in evidence of a lack in proficiency in solving story problems. Successful performance on tasks results in diagnosis of the student as having high reading, schema recognition, and math abilities, with the overall classification as being an advanced math story problem-solver; the opposite is also true. Figures 6 and 7 illustrate these ideas.

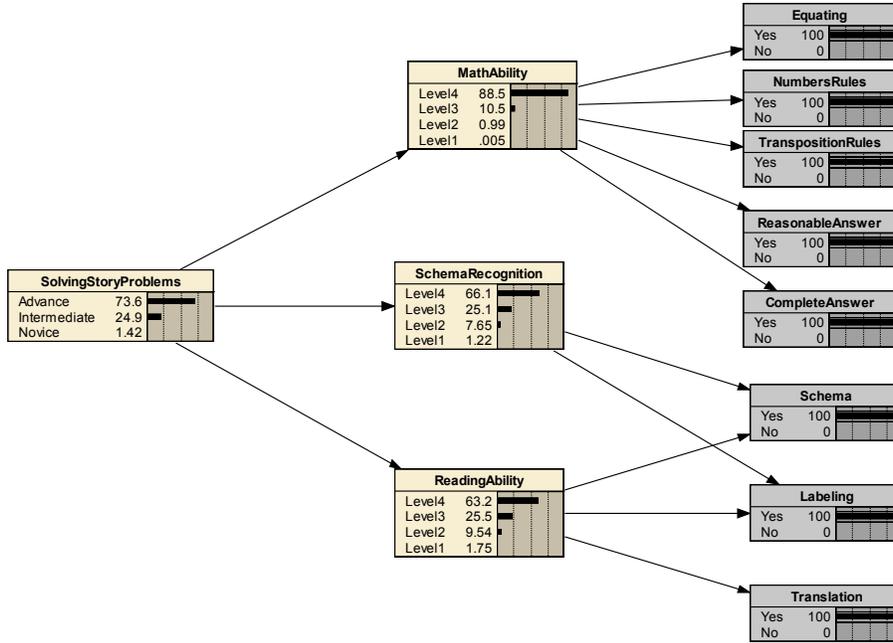


Figure 6: Classification of Student as an Advance Story Problem Solver

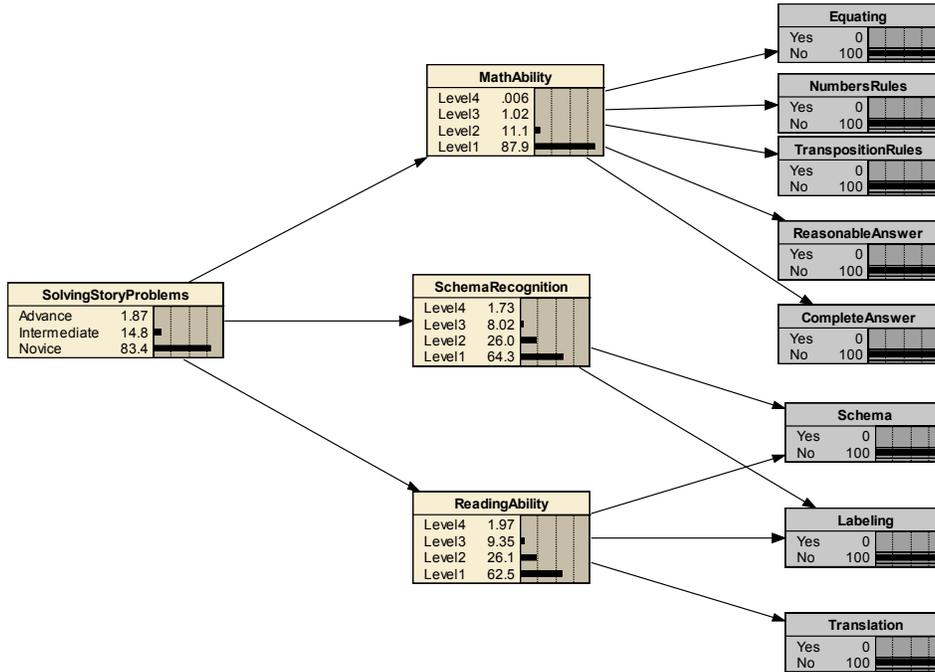


Figure 7: Classification of Student as a Novice Story Problem Solver

From a diagnostic perspective, a performance which demonstrates lack of competence in any combination of the required skills should be of particular interest. A student who performs the tasks associated with the reading and schema recognition abilities at level 1 will likely obtain an incorrect equation to solve. Despite the lack of reading and schema recognition abilities, the

student may be able to solve the derived equation. The results will be incorrect or unreasonable within the problem context. As illustrated in Figure 8, it is more likely that the student's math ability will be classified at level 2 or 3 but the reading and schema recognition abilities will be at level 1. Thus, it is more likely that the student is a novice story problem solver than an intermediate or an advance problem solver. This observation is of particular interest for English Language Learners who have language comprehension deficiencies. Practitioners can then implement further diagnosis of reading ability for remediation purposes.

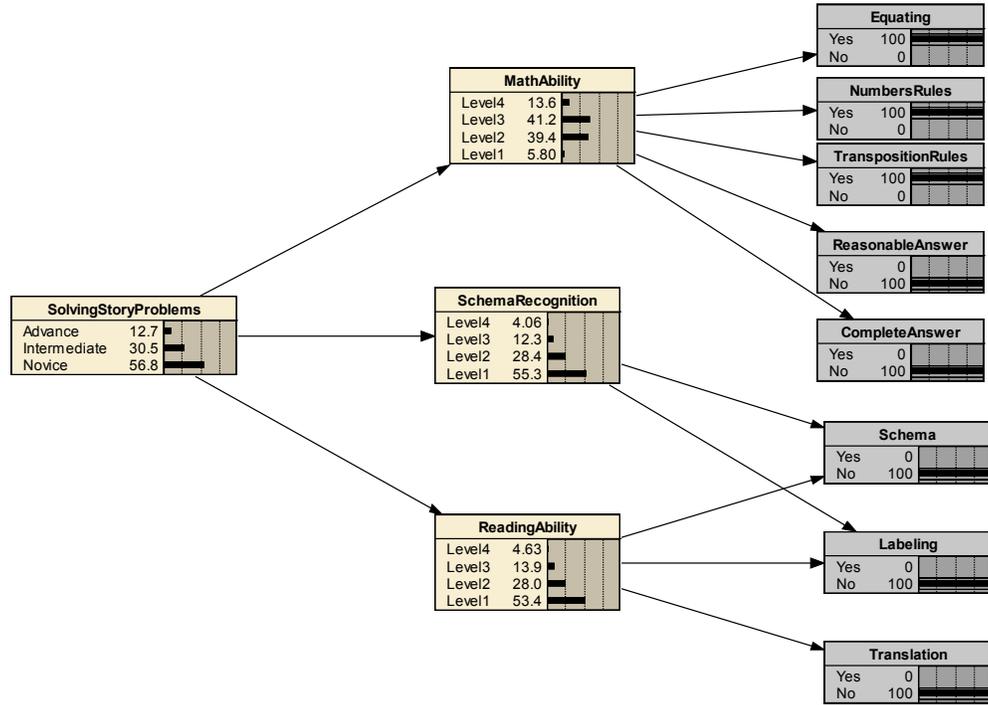


Figure 8: Diagnosis of Reading and Schema Recognition abilities

Similarly, an intermediate or novice story problem solver is one who may be proficient in reading and schema recognition but lacks sufficient math ability. The student who adequately translates the story problem and implements the appropriate schema but has difficulty doing mathematical calculations may be able to provide a complete but unreasonable answer (Figure 9). It is as equally likely that such combination of abilities results in classification of the student as either an intermediate or novice story problem solver.

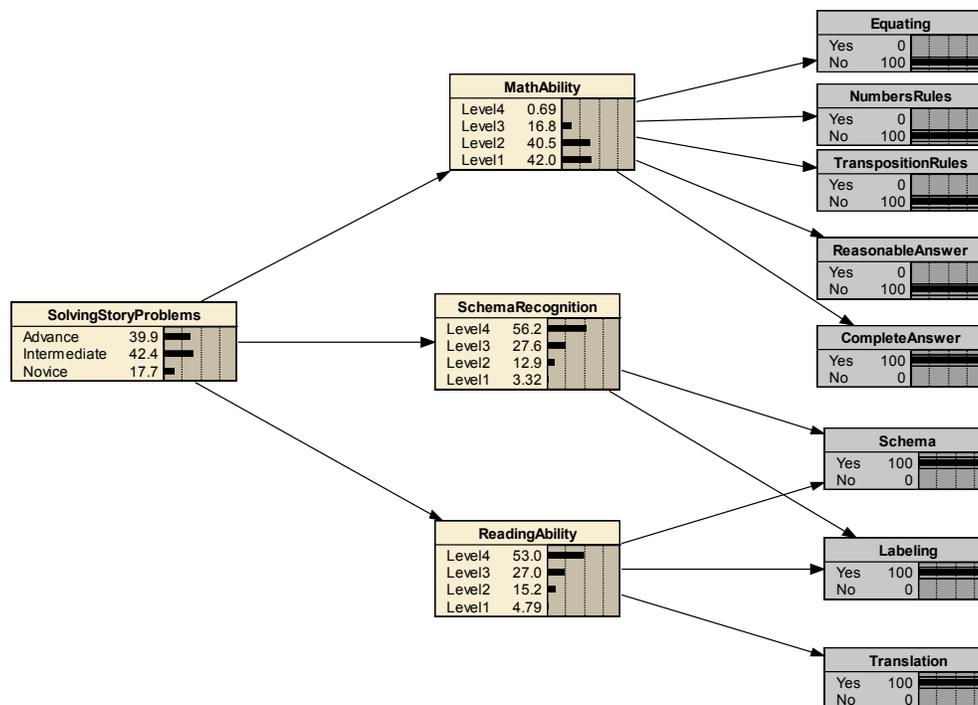


Figure 9: Diagnosis of Math Ability

Discussion and Direction for Future Work

We demonstrated how evidence from tasks can be associated with probability values to efficiently assess students' problem solving proficiency. Our interest is in assessing story problem solving ability, but we can extend the approach to other areas in education and beyond the educational setting.

As part of the ongoing process of refinement of the theoretical framework outlined in this paper, the researchers plan to expand their research in the following key areas:

- Extend the present model to include assessment of the impact of context associated with story problems. Mislevy (1995) argues for the inclusion of such a variable in assessment tasks to reflect the true nature of learning. This can be especially helpful in assessing how English Language Learners (ELL) solve story problems.
- Seek assistance from content experts and cognitive researchers to specify properly the model.
- Ascertain the probability values in the nodes, which serve as our initial belief about students' story problem abilities, from collected data or from content experts. Almond et al. (in press) suggest that expert opinion can serve as an appropriate source for these values in the absence of data.
- Develop a battery of story problems that uses Marshall et al.'s (1987) suggested schemas with appropriate levels of difficulty to serve as diagnostic tools to measure students' story problem solving ability.
- Implement an approved research proposal for implementing the Bayesian model on human subjects in an educational context.

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Gertrudes Velasquez received a Master's degree in Measurement and Statistics from Florida State University (FSU). He received his bachelor's degree in mathematics education in his home country of Belize. He is currently a faculty member of the Faculty of Science and Technology at the University of Belize, Belize. He assists his country's ministry of education in the development of a national examination for primary school students. His professional interests lie in development of quantitative research design, statistical analysis, program evaluation, and development of valid and reliable assessments.

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Discussion Questions

1. Which characteristics of the Bayesian network make it important for examining students' proficiencies to solve the story problems?
2. Students need reading ability, schema recognition ability and math ability to successfully solve story problems. What is the expected results if lack of either one or combination of these abilities on students' proficiencies?
3. What role(s) would story context play on students' ability to solve story problems? How would the Bayesian Network be modified to accommodate story context?
4. What other cognitive frameworks can replace the schema theory framework to help students develop effective story problem-solving strategies? How, if possible, would such frameworks fit into an ECD approach?
5. Consider language acquisition for English Language Learners (ELL). What proficiencies would be necessary for effective acquisition? How would a Bayesian network reflect these proficiencies?

To Cite this Article

Velasquez, G., & Tokac, U. (2014, Summer). Using evidence-centered design to diagnose proficiency in solving story problems. *Journal of Multidisciplinary Research*, 6(2), 65-76.

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Book Review

Book Details

Hayes, S. (2013). *Trafficked: My story of surviving, escaping, and transcending abduction into prostitution*. Naperville, IL: Sourcebooks, 267 pages, paperback, \$15.99, ISBN-13: 978-1-4022-8103-7.

Reviewer

Susan Labasky Warheit, Esq.

Synopsis and Evaluation

Although we would like to believe it could never happen to us or anyone we know, in this compelling memoir, Sophie Hayes makes us confront the frightening reality that the human trafficker operates in the communities in which we live and work. Sophie Hayes candidly describes the nightmare that was her waking life for six months in her revealing, first-person account of a young, educated English woman unwittingly drawn into the world of human trafficking.

The author initially describes her early years with her family and the men in her life, including her abusive father. These relationships reappear throughout the book as Ms. Hayes attempts to self-analyze why she rejected men who treated her kindly in favor of a man who ultimately almost killed her. Her abductor appears early in the story, a charming potential suitor. Initially unsuccessful at breaking down her defenses, he remained in the periphery of her life, a “friend” in living in Italy. It was not until years later, when the author accepted his invitation to visit, that her boyfriend unveiled his true personality – that of a violent criminal who forced her into prostitution in order to pay off his drug debt.

Ms. Hayes relives the months she spent at the mercy of her captor in Italy and for a time in France, describing her life on the streets. Wisely anticipating her audience’s inability to truly relate to her horrifying predicament, the author repeatedly emphasizes why she continued to endure the extreme physical and mental abuse inflicted upon her: (1) the need to protect her younger brothers, whom her attacker repeatedly threatened, and (2) the paranoia that anyone who might try to help her knew her abductor and would be “testing” her loyalty. She reveals her attempt to cope by first creating an alter ego, then ultimately becoming a self-described “zombie,” explaining it was better not to think – because if she didn’t think then she didn’t feel.

One of the fortunate survivors of the streets, Ms. Hayes relates her dramatic escape from her captor and her return to England, and how, even then, she remained imprisoned by her fear

of re-captivity and retribution. She attributes her continuing recovery to the support of family and friends as well as the organization Stop the Traffik, which provided her a vehicle through which to advocate and increase public awareness.

The author also includes data on human trafficking and short “notes” others involved in her story have written, the most poignant of which is one from her mother, who honors her daughter as “one of the most courageous young women you are ever likely to meet” (p. 241). Finally, the author provides useful contact information, including that for Sophie Hayes Foundation, the three-fold mission of which is to support and assist survivors, advocate and increase awareness, and research the topics of sexual exploitation and support services.

One of the realities that emerges from this book is that due the extreme psychological damage trafficking victims suffer, an escape is not likely to come from their own efforts, but must come from outside intervention. In discussing her various “encounters,” the author non-judgmentally describes how potential rescuers with whom she came into contact showed her some acts of kindness, yet returned her to the street, even in light of what had to have been obvious physical injuries. Sadly, this book demonstrates that young women (and men) who are trafficked are victims not only of their captors but also of our society.

Although the subject matter of this book is not new, Ms. Hayes’s memoir is powerful because it is personal and is appropriate not only for those who may come into contact with abuse victims in a professional capacity but also for all mature young people and those in a position to guide them.

In the Author’s Own Words

“They say that just before people drown, they stop struggling to keep their heads above water and become almost calm, and that was how I felt at that moment. Whatever I did, no matter how hard I tried, it seemed to make no difference, and I was completely weary. *Kick me*, I thought. *Kick me as much as you want if it makes you happy* – because I knew that Kas had finally broken my spirit and I’d given up” (p. 119).

“I often feel as though I’m climbing a ladder, at the top of which are all the good things I hope I’ll have one day – including a strong sense of self-esteem and the ability to accept love without question and to live at peace with myself. At the moment, I’m only a few rungs up that ladder, and I can’t even see the top of it yet. But I know that if I keep climbing, I’ll get there in the end, however long it takes me” (p. 239).

Reviewer’s Details

Susan Labasky Warheit, Esq. (swarheit@stu.edu), is an Assistant Professor of Legal Writing at St. Thomas University School of Law in Miami Gardens, Florida.

To Cite This Review

Warheit, S. (2014, Summer). [Review of the book *Trafficked: My story of surviving, escaping, and transcending abduction into prostitution*, by S. Hayes]. *Journal of Multidisciplinary Research*, 6(2), 77-78.

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Book Review

Book Details

Barreto, E. D. ed. (2014). *Reading theologically*. Minneapolis, MN: Fortress Press, 145 pages, paperback, \$14, ISBN 9781451483420.

Reviewer

The Reverend Jonathan Roach, Ph.D.

Book Synopsis

This edited volume of eight chapters proposes a formative and graceful approach for reading theologically. The authors represent a variety of theological disciplines including homiletics, pastoral theology, ethics, and biblical studies. Overall, the text argues that reading “is a habit as much as it is a practice, a way of life as much as it is an academic skill” (p. 9). Rather than offering a “how-to” guide on reading mechanics, the chapters “emphasize the vital skills, practices, and values important for reading theologically” (p. 10). The book attempts to shape readers’ perspective for approaching both sacred and secular texts by arguing this formation process is about “ministerial leaders who can engage scholarship critically, interpret scripture and tradition faithfully, welcome different perspectives, and help others to do the same” (p. 11).

Various chapters engage the concept of graceful reading that requires readers to read with a spirit of generosity. One chapter explains that “reading generously is a practice of love” (p. 65). This requires readers to dialogue with the text in hope of accomplishing more than just comprehending it. The book encourages listening with openness and suggests that “reading spiritually involves not only being intentionally reflective about the text you read (both religious and non-religious) but also being appreciative readers of your colleagues and their religious purview” (p. 126). It argues for self-reflective approaches, waiting to form conclusions, hearing what God says through the text, adjusting attitudes, and being willing to teach.

Other chapters recommend readers consider reading as formational “in a way that is embodied, communal, spiritual, and transformative in practice” (p. 17). The text addresses the need for readers to take care of their bodies, learn to dialogue with other readers to gain deeper insights into materials, and engage reading as a spiritual practice. It challenges readers to consider why they are reading, and it examines the processes of both deconstructing and reconstructing a text. The book encourages readers to consider themselves as interpreters. It empowers them to examine how their social location, academic credentials, race, gender, and background impact

their interpretation. The book argues that reading is multidimensional and encourages readers to be open to “plural and flexible meanings” (p. 37).

The book offers an approach to relearning how to read, and it provides tools and strategies to enhance a readers’ ability to read. It notes that reading the Bible has a special place in reading for students of theology but notes that reading the Bible offers a special challenge. It argues that “good exegesis is a habit more than a skill” (p. 57).

Although this text is intended for seminarians and those planning to attend seminary, it provides valuable insights for all kinds of faith based readers. The book has an easy to follow conversational tone that is very accessible to general readers. Melissa Browning’s chapter “Reading Basically” and Sarah Morice Brubaker’s “Reading Digitally” are especially worth reading as they provide a vital balance of skills, practices, and values. Although the authors place reading research as outside the scope of this work, their book would have been richer and deeper if they had engaged other books about reading theologically such as William Willimon’s *Reading with Deeper Eyes* (1998), Darren Middleton’s *Theology after Reading: Christian Imagination and the Power of Fiction* (2008), Paul Griffiths’ *Religious Reading: The Place of Reading in the Practice of Religion* (1999), or Alan Jacobs’ *A Theology of Reading: The Hermeneutics of Love* (2001). This book is recommended for theology students at all levels of formal academic training including those who are not considering parish settings. This is also a text that faculty teaching entry level master of divinity students should consider adding to their textbooks lists.

In the Author’s Own Words

“Reading is not just an activity of the eyes and the brain. What we mean by reading theologically is a whole mindset and posture toward texts and ideas, people and communities alike. Reading theologically is thus not primarily about mechanics. This book is not principally concerned with *how* we read in seminary. Instead, reading theologically is about formation and cultivation of a particular posture towards texts, whether sacred or profane. Reading theologically is not just about building your academic skills, but about your formation as a ministerial leader who can engage scholarship critically, interpret scripture and tradition faithfully, welcome different perspectives, and help lead others to do the same” (p. 11).

Reviewer’s Details

The Reverend Jonathan Roach (jroach@stu.edu) is the Library Administrator at St. Thomas University. He holds a Ph.D. in practical theology from St. Thomas University, a Master of Library and Information Science from Wayne State University, and a Master of Divinity from Ecumenical Theological Seminary. He is ordained clergy in the National Association of Congregational Christian Churches and is currently working in the area of clergy burnout within a contextual theology of work.

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“Rainbow Dance”

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Book Review

Book Details

Bacal, J. (Ed.). (2014). *Mistakes I made at work: 25 influential women reflect on what they got out of getting it wrong*. New York, NY: Plume, 304 pages, paperback, \$16.00, ISBN: 978-0142180570.

Reviewer

Gricel Domínguez, MA, MLIS

Synopsis and Evaluation

Gathering insightful stories from 25 women in fields as varied as scientific research, writing, academia, politics, business, and music, Bacal explores a fresh approach to making it in the world of work—getting it wrong to get it right. So often, she notes, experts tell us that to grow, we must learn from our mistakes, but rarely are professionals willing to share those stories. Bacal and her collaborators do just that, exposing themselves and revealing errors that made them stop and consider the choices that led up to that moment, their place within their chosen field, their life goals. The pressure for girls and young women to “have it together” often follows [them] to college and beyond” touching every aspect of their academic and professional careers and driving them into the role of “good girl,” this damaging ideal prevents women from revealing their struggles and sharing lessons learned from mistakes for fear of seeming less than perfect (p. xi).

The collection is divided into four sections: “Learning to Say No,” “Learning to Ask,” “Learning to Take Charge of your own Narrative,” and “Learning Resilience.” The stories in these sections seek to bond the reader with the writer; they are told in the first-person and in the author’s own words. Reading these accounts is like listening to an experienced mentor or friend, learning from their wisdom, their joys, and their pains. More than anything, these are stories about sticking it out and finding the “power in talking about our mistakes and failures” (p. xv).

In “Learning to Say No,” novelist and professor of writing at the University of Michigan Sharon Pomerantz writes about being silenced in the first and worst job she ever had after graduating from college. “When you’re from a blue-collar family,” she explains, “you don’t see the romance in blue-collar work. I had a college degree, and I wanted to use it, and I wanted my parents to see me use it” (p. 18). Pomerantz’s mistake, she argues, was letting her voice be silenced and her health compromised by a demoralizing employer for fear of quitting and being deemed a failure. She learned from it and moved on.

Leadership expert Selena Rezvani discusses mistakes she made in communicating with others and ignoring her own needs in “Learning to Ask.” Rezvani recounts how realizing the degree she earned was not the right one for her helped her forge a new path, taking on new challenges to find ways to give voice to other women and inspiring them to become leaders.

In the next section, “Learning to Take Charge of Your Own Narrative,” Lani Guinier, the first female African-American professor to receive tenure at the Harvard Law School, argues that making it sometimes means coming to terms with the truth that money and power “aren’t everything when they fail to produce a sense of genuine satisfaction at work” (p. 135). Being a high achiever does not mean having to give up one’s personal sense of self for the sake of a high-powered position.

In the final section, “Learning Resilience,” author and activist Rinku Sen discusses how to handle resistance without losing sight of what you want to accomplish, and how accept feedback without becoming defensive. She learned that—in situations where there is a pushback—“if you allow yourself to be dissuaded without actually hearing that no then you, then you may end up feeling like a victim and feeling resentful at work” (p.198). That resentment harbors the potential to create more damage than any mistake.

This collection challenges the idea that success for women means being an all-achieving perfectionist who knows when to stand back and let the big boys handle the show. The 25 women who contribute their stories strive to show that failure is not the end and that women can rise above expectations to make the most of their lives, careers, and dreams. This is an excellent read for recent graduates and professionals alike, especially for those afraid of failure.

In the Author’s Own Words

Ruth Ozeki states: “Ignorance is an act of will, and so is knowledge. We can just as easily choose not to be ignorant. We can choose not to ignore the conditions of the world. We can take responsibility for our mistakes, rather than avoiding them, engage with our remorse, and stop living in fear and denial” (p. 222).

Reviewer’s Details

Gricel Domínguez (gdominguez@stu.edu), MA, MLIS, is Assistant Administrator for the St. Thomas University Library. She holds an MA in English and an MLIS in the area of Library and Information Science. Her research interests include literacy, new media and writing development, and how to engage students in academic library settings.

To Cite this Review

Domínguez, G. (2014, Summer). [Review of *Mistakes I made at work: 25 influential women reflect on what they got out of getting it wrong*, by J. Bacal]. *Journal of Multidisciplinary Research*, 6(2), 83-84.

Editors' Choice

Recent Books of Interest – Fall 2014

1. Ferrazzi, K., and Raz, T. (2014). *Never eat alone* (2nd ed.). New York, New York: Crown Publishing, 400 pages, hardcover, \$27.00, ISBN-13: 978-0-385-34665-8.

As a caddie at a local country club and son of a maid and steelworker, Keith Ferrazzi observed at a young age how the wealthy club members he worked for accomplished things—organically, through existing relationships, as “friends helping friends.” Ferrazzi went on to attend Yale and Harvard Business School and soon became among the youngest chief marketing officers at Deloitte Consulting and then at a Fortune 500 hotel chain, sought after in business and mentoring relationships for his people skills. Now the founder of a training and consulting company, Ferrazzi emphasizes connecting over networking. Co-authored by Tahl Raz, a writer for *Inc.* magazine, the book describes strategies for connecting and illustrates them using paragons like Paul Revere, Eleanor Roosevelt, and The Dalai Lama. Originally published in 2005, the second edition of this book includes insights on using Facebook, Twitter, and Linked In to effectively maintain a web of relationships.

2. Fox, A. C. (2014). *People tools: 54 strategies for building relationships, creating joy, and embracing prosperity*. New York, New York: SelectBooks, 208 pages, paperback, \$16.95, ISBN-13: 978-1-59079-142-4.

Alan Fox is the founder and owner of both a commercial real estate company and the quarterly poetry journal *Rattle*. In his first book, *People Tools*, he describes 54 rules and strategies for self-management, navigating and deepening relationships, and experiencing joy. A *New York Times* Business Best Seller, this book is written in a conversational style, full of insights and anecdotes from the author's life.

3. Gallo, C. (2014). *Talk like TED: The 9 public-speaking secrets of the world's top minds*. New York, New York: St. Martin's Press, 288 pages, hardcover, \$24.99, ISBN-13: 978-1-250-04112-8.

Carmine Gallo, public-speaking coach to executives at several global brands and author of *The Presentation Secrets of Steve Jobs* among other books, analyzed 500 TED Talks, interviewed the most watched TED speakers, and distilled his findings into 9 qualities or “secrets,” that characterize the best of TED Talks. These secrets are not without their

science, as Gallo draws upon research in psychology, communications, and neuroscience to support his analysis and insights on how speakers can learn to “talk like TED.”

4. Yohn, D. L. (2014). *What great brands do: The seven brand-building principles that separate the best from the rest*. San Francisco, CA: Jossey-Bass, 272 pages, hardcover, \$27.99, ISBN-13: 978-1-118-61125-8.

A consultant for 25 years with several Fortune 1000 brands, Denise Lee Yohn dismantles the traditional concept of a brand as an external “marketing asset” and instead proposes a “brand as business” approach where the brand infuses business operations and strategic management. Each chapter sets forth one of seven brand-building principles and includes exercises, tools, and action steps to guide executives and managers through practices that transform a brand from “what you say you are” to “what you do.”

5. Zarate, J. C. (2013). *Treasury’s war: The unleashing of a new era of financial warfare*. New York, New York: Perseus Books, 512 pages, hardcover, \$29.99, ISBN-13: 978-1-61039-115-3.

Juan C. Zarate is a senior adviser on projects and programs involving transnational threats and counterterrorism at the Center for Strategic and International Studies. He is also a senior national security analyst for CBS News. But it is his former experience as assistant secretary to the U.S. Treasury Department for terrorist financing and financial crimes, and then as deputy assistant to President George W. Bush and deputy national security advisor on combating terrorism, that informs this book. After 9/11, he was part of a team of Treasury officials who developed campaigns that extended beyond international sanctions and trade embargoes with strategies that financially isolated U.S. adversaries like Al Qaeda, North Korea, and Iran. This book describes those techniques and makes policy and strategic recommendations for maintaining U.S. financial power in a context where competitors deploy financial weapons of their own.

6. Parissien, S. (2014). *The life of the automobile: The complete history of the motor car*. New York, New York: St. Martin’s Press, 448 pages, hardcover, \$27.99, ISBN-13: 978-1-250-04063-3.

An English author of works on cultural and architectural history, and a museum and gallery director, Dr. Steven Parissien writes a world history of the automobile, beginning in the back of a bicycle shop with the petrol-powered “Benz Patent Motorwagen” invented by a German engineer, and developing into today’s mass-produced, global car industry. The book focuses on the people, corporations, events, and ecological concerns that figure prominently in industry innovations, turns, and challenges.

7. Petrovsky-Shtern, Y. (2014). *The golden age shtetl: A new history of Jewish life in East Europe*. Princeton, NJ: Princeton University Press, 448 pages, archival photos, hardcover, \$29.95, ISBN-13: 978-0-691-16074-0.

To craft this account of the *shtetls* of East Europe as culturally and economically thriving villages, Yohanan Petrovsky-Shtern, a Professor of Jewish Studies at Northwestern University, researched never-before-used archival records pertaining to three provinces in central Ukraine in what was then the Russian Empire. He unearthed what he describes in his book as the golden age of the shtetl, which he places from the 1790s to the 1840s. A shtetl is a predominately Jewish village that historically has been depicted as poverty-stricken. The more bustling shtetls in this account depict their Jewish inhabitants running marketplaces and broadly conducting trade, all the while existing under Russian rule with the permission of Polish nobles. The region that is the subject of this book is identified by *New York Times* book reviewer Jonathan Rosen as “a central battleground in the war against the Jews,” thus explaining why a more positive depiction of the *shtetl* was lost to history. It is for this reason that Rosen characterizes Petrovsky-Shtern’s account as a “moving feat of cultural reclamation and even, in its way, an act of quiet heroism.”

8. Ackerman, D. (2014). *The human age: The world shaped by us*. New York, New York: W. W. Norton, 533 pages, hardcover, \$31.99, ISBN-13: 978-1-4104-7474-2.

Poet, essayist, author of the *New York Times* Best Seller *The Zookeeper’s Wife*, and non-fiction author of *A Natural History of the Senses*, among other non-fiction titles and children’s books about nature, Diane Ackerman again steps into the role of “public science writer” in *The Human Age*. The book’s title refers to the Anthropocene, a geological period that began with the Industrial Revolution and continues to be marked by lasting human impact on the environment. Ackerman describes the destruction but is optimistic about human innovations in STEM fields. Lauded in the *New York Times* by book reviewer Rob Nixon for its multidisciplinary canvas, including “evolutionary robotics, urban design, nanotechnology, 3-D printing, and biomimicry,” the book celebrates human ingenuity, but perhaps, according to Nixon, without critically examining the growing economic divide left in its wake.

9. Carson, B., & Carson, C. (2014). *One nation: What we can all do to save America’s future*. New York, New York: Penguin Group, 256 pages, hardcover, \$25.95, ISBN-13: 978-1-59523-112-3.

Dr. Ben Carson was raised in poverty by a single mother committed to seeing that her children took their education seriously. Against many odds, including his African American heritage, Carson became an accomplished neurosurgeon and an education advocate who, along with his wife and co-author, Candy, developed a scholarship fund to recognize academic achievement in young students. A two-time speaker at the National Prayer Breakfast, recipient of the Presidential Medal of Freedom, and well-known author, columnist, and Fox News contributor, Dr. Carson continues to address the nation, along with his wife, in this *New York Times* Best Seller. They critique current affairs, political

gridlock, and the muzzle of political correctness; they call politicians to action on the growing national debt; and they propose solutions to seemingly intractable problems in health care and education.

10. Ramsey, D., & Cruze, R. (2014). *Smart money smart kids: Raising the next generation to win with money*. Brentwood, TN: Lampo Press, 256 pages, hardcover, \$24.99, ISBN-13: 978-1-937077-63-1.

Dave Ramsey is founder of The Lampo Group, which provides counseling to individuals experiencing financial stress, and radio host and “money expert” for the nationally syndicated Dave Ramsey Show, which is also a TV show on Fox Business Network. In *Smart Money Smart Kids*, father and daughter co-authors reach out to parents with practical, spiritually based principles for managing money, not simply so they can be better stewards but so they can teach these principles to their children.

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- Adhere to the sixth edition of the *Publication Manual of the American Psychological Association* (APA, 6th edition). At the initial stage, the editors tend to review less favorably those manuscripts that do not conform to APA and may return them to the primary author for revision prior to submission to the full review process.
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