

- (四)忽視條件產生的錯誤：將不等式誤認為解方程式、將  $a^x > 0$  誤認為  $x > 0$ 、比較大小未注意底數。
- (五)將文字符號任意代數字或認為答案應該是數字。
- (六)沒有解題能力及作答動機：依現有數據拼湊答案、將  $a^x = k$  誤用為  $x = \frac{k}{a}$ 。

### 三、學生在指數單元的錯誤原因

藉由錯誤類型的分析，可以了解造成學生錯誤的原因有以下九種：

- (一)對指數定義及指數律的觀念不清楚，指數函數圖形概念模糊。
- (二)受先前學習過的知識或本單元學習經驗的影響作錯誤的推論。
- (三)缺乏預備知識、先前技巧欠熟練。
- (四)忽略題目所給的條件、把給定的條件特殊化。
- (五)受題目情境設計、文字敘述及編排方式的影響。
- (六)文字符號概念模糊。
- (七)專注力不足，粗心疏忽的漏失。
- (八)憑直覺或關鍵字作答。
- (九)不合邏輯的推論。

本研究是探討高職一年級學生在指數單元的錯誤情形與犯錯原因。根據本研究結果，研究者在教學上及未來研究上，分別提出一些建議。

#### 一、在教學上的建議

- (一)教師在教學前應瞭解學生的預備知識來設計教學內容，對於國中部分課程的觀念如乘法公式、四則運算性質、十字交乘法、方程式解的概念等，應做適當的銜接課程與複習，避免學生做錯誤的推論與運算，進而以減少學生的學習障礙。
- (二)學生在學習數學總是喜歡記憶公式，對於公式推導的步驟、過程或理論延伸的情形均不理解，且學校老師因為教學進度及考試的壓力，往往講解一次概念原由後便不再強調原因，造成學生在學習的重點錯誤。因此教師在進行指數單元教學時，應將「指數律」的概念講述清楚，並舉例說明，不應該只傳授口訣或技巧，造成學生死記「指數律」，而未真正理解其意義。
- (三)教師若能在教學或評量時，對同一種概念或題型，以多元的方式來呈現、比較，如此便能避免使學生出現學習僵化的現象，並且讓學生能在腦海裡有張清晰的觀念圖，協助學生經驗的類化，以增進正向遷移的效果。
- (四)在教學上宜針對學生易產生的錯誤，利用正例與非例及問答的技巧讓學生產生認知衝突，進而澄清觀念，讓學生觀念穩固，對於學生數學的學習會有相當助益。
- (五)本研究中發現，學生對於應用問題的答題率很低，其原因是受題目情境設計與文字敘述的影響。因此，教師教學時，應盡量將數學問題融入日常生活中，讓學生習慣在生活情境中利用數學來解決問題。如此學生才能理解這樣的數學內容，對學生來講，才是有實質意義，學生學習起來才會更有興趣。並且訓練學生解決問題的能力。此能力提升，相信學生解決數學問題的能力也會提升。
- (六)教學時，應增加課堂間相互討論的機會，鼓勵學生多發問、多思考，藉此可以協助學生修正自己的錯誤觀念；另一方面，評量的內容應多元設計，讓學生思考與

比較同一概念、題型的多樣性，避免學生產生習慣僵化的情形而造成學習的負遷移。

## 二、對未來研究的建議

- (一)本研究是以高雄地區某四所高職一年級學生作為研究對象，主要探討高雄高職一年級學生指數概念及運算的錯誤情形，亦未比較不同縣市，或未使用同一版本的學習成效有何不同。因此在研究結果上無法作全面性的推論研究結果是否會因著對象在年紀，性別或地區上等不同的差異，而造成不同的結果，有待進一步的研究。
- (二)本研究僅由學生紙筆測驗結果以及面談的內容來分析其錯誤的可能原因，建議未來可增加教室教學觀察的方式，瞭解學生於上課時，師生互動時所呈現的錯誤概念及想法，如此才能更深入了解學生犯錯的原因。

# Running Head: PROBLEMATIC ISSUES IN MARRIAGE

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Problematic Issues in Marriage for Graduate Students in Mental Health Programs

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## Abstract

The most problematic issues experienced in marriage may be reported differently by ethnicities. In order to gain a better understanding on this issue, 30 married graduate students completed a survey about problematic issues perceived in their marriage. Participants were 10 Hispanics and 14 Caucasians. The top 3 issues Hispanics reported were: 1. *Balancing job & family*, 2. *Expectations about household tasks*, and 3. *Time spent together with your spouse*. The top 3 issues Caucasians reported were: 1. *Balancing job & family*, 2. *Balancing parenting and couple time*, and 3. *Time spent together with your spouse*. By better understanding the problematic issues experienced in marriage for different ethnic groups, clinicians may provide more personalized, effective marital therapy.

關鍵字：problematic issues in marriage, Hispanic marriages, graduate students

### Problematic Issues in Marriage for Graduate Students in Mental Health Programs

Marriage is a basic building block for most communities and plays an intricate role in procreation and sustaining generations. John Locke in his two treaties of government (1698) describes marriage as humankind's "first society." It is the foundation of the family or the first tie in the most significant bond the majority of individuals will experience in their lives. Marriage has been strongly linked with many positive outcomes for adults and children. Compared to unmarried people, married men and women tend to have lower mortality, show less risky behavior, be more health conscious, be more compliant with medical regimens, show higher sexual frequency, have more sexual satisfaction, have more monetary savings, and have higher monetary wages (National Center For Health Statistics [NCHS], 2002). Research indicates a powerful association between marriage and positive psychological well-being for men and women (Williams 2003; Simon 2002; Horwitz, White, and Howell-White 1996) and is especially important to the social and psychological well being of children (Frech & Williams, 2007).

The dissolution of marriage, in contrast, is associated with many negative outcomes for men, women, children, and the community (NCHS, 2002). Divorced people exhibit lower levels of psychological well-being, more health problems, greater risk of mortality, more social isolation, less satisfying sex lives, more negative life events, greater levels of depression, greater alcohol use, and lower levels of happiness and self-acceptance (NCHS, 2002). The Center for Disease Control studied marriage and found a host of socially detrimental outcomes for single-parent families compared to two-parent families and negative psychological outcomes for children of divorce (NCHS, 2002).

Divorce is also damaging to the economic wellbeing of communities (NCHS, 2002). The dissolution of marriage often forces individuals into lower socioeconomic status, reports the National Center for Health Statistics. This is often attributed to single parents being less likely to meet basic needs and often relying on government support. Two income households, in contrast, are better able to take care of basic needs and are less likely to depend on public aid (NCHS, 2002). According to Ooms (2002), single parent households drive-up the costs of welfare, Medicaid, and other public assistance programs.

The overwhelming positive effect of marriage and the multitude of negative outcomes associated with divorce illustrate the importance of fostering healthy marital relationships. It is critical, however, to strengthen marriage and ameliorate the process divorce in order to sustain the concept of family, improve psychological wellbeing, decrease economic hardship, and improve health. According to the U.S. Census Bureau, family structures in the United States have changed dramatically in the last 50 years. In the United States 2000 census, almost half of Americans lived in a home where the major caregiver was unmarried, compared to only 22% in 1950. Of the young people who divorce, 75% will remarry and 60% will divorce again.

In order to combat the growing epidemic of divorce, it is important for therapists to know what key issues couples are finding most difficult in their marriages. Once potential

problematic issues are targeted, these areas can be explored by couples and fortified by therapists and educators. Olson and Fowers (1993) found that most couples do not tend to think about potential marital difficulties before tying the knot. Couples considering marriage may not discuss their marital expectations or have effective ways of dealing with difficulties when they arise. Olson and Fowers (1993) recommend the following issues be discussed before couples get married: expectations about children and how to raise them, gender roles, conflict management, spouse's employment, premarital cohabitation, difficulties in leisure activities, difficulties in sexual relations, parental divorce, previous divorce, escalation/defensiveness/withdrawal, dissatisfaction with partner's personality and habits, religious dissimilarity, maintaining separate finances, relationship changing, future goals, and premarital pregnancy.

In the Survey of Married Individuals (Risch, Riley & Lawler, 2003), researchers used proportional random sampling to draw participants from a national pool of couples that had completed the FOCCUS premarital inventory between 1995 and 1999. All couples contacted were married five years or less. Forty two percent of the surveys mailed out to the 947 couples were completed and returned. A total of 793 individuals participated in their research.

A major strength of Risch, Riley, and Lawler's study (2003), as noted by the authors, is the large sample size and diversity of geographical locations in the United States. However, there are many limitations in generalizing the results of the study to other populations. All participants were in the early years of marriage, in their first marriage, highly educated, and Catholic. Furthermore, all the participants surveyed chose to complete the FOCCUS premarital program, a choice that may be characteristic of a specific population. Most limiting to Risch, Riley, and Lawler's research (2003) is the lack of ethnic diversity in couples surveyed. Over 95% of the participants were Caucasian, which does not reflect the population being served by therapists in today's society. Marital programs sometimes treat couples with a cookie cutter approach, dismissing the connection that may be present between ethnicity and problematic issues experienced in marriage.

Bean and Crane (1996) reported that despite the awareness of the role ethnicity plays, the issue is often not addressed when looking at marriage and family therapy. Research suggests that different factors may affect the marriages of different ethnic groups and that these marriages may work in different ways. For example, Mexican-Americans are more likely than European-Americans to live with or within closer proximity to extended family (Sarkisian, Gerena, & Gerstel, 2007). When compared to European-American families, Mexican-American families include more children and larger households (Parke et al, 2004). According to Parke et al. (2004), minority couples are more likely to have economic hardship. The authors found three times higher poverty rates for Mexican-American and African-American families compared to European-American families. African-Americans in the United States tend to marry later than Whites or Hispanics, according to Teachman, Tedrow, and Crowder (2000). Caetano et al. (2002) found more between-couple-violence for minority

couples than for Caucasian couples.

The current study, in contrast, widens the scope of Risch, Riley, and Lawler's study (2003) by examining the problematic issues experienced in marriage for Hispanic as well as Caucasians. By expanding the population of research participants, responses from Caucasian as well as Hispanic married individuals are compared. We found differences in the marital problems identified by the two ethnicities examined. Bean and Crane (1996) found that clinicians often hold many misconceptions about ethnic minorities that may affect the therapy process. A deeper understanding of problematic issues that occur for specific ethnic groups could lead to marital therapy that is more culturally sensitive.

## Method

### *Participants*

Participants were graduate students in counseling/psychology graduate programs at St. Mary's University in San Antonio, Texas. All participants were married. The participants were recruited from classrooms and did not receive compensation for participation in the study. There were 30 participants for this study, 20 were female and 10 were male. Religious affiliation was described as: *Christian* (N = 23), *Muslim* (N = 3), *Atheist* (N = 1), and *Other* not specified (N=3). The mean age of participants was 35 years, and the range was 24-55 years (Mean = 32, SD = 9.45). Of the participants, 14 were Caucasian, 10 were Hispanic, 2 were Asian-American, 1 was African-American, and 3 identified themselves as *Other*. Due to the small number of African-American, Asian-American, and other ethnic groups surveyed, the researchers combined all three categories into the new group, *Other*. Of the participants, 15 were previously married and 25 were not previously married. Participants reported being married in their current marriage the following number of years, Mean = 8.23, Median = 6.00, SD = 7.28. Of the participants, 16 lived with their spouse prior to marriage and 14 participants did not. Participants reported a mean annual household income of \$140,000-\$160,000 and a median annual income of \$80,000-\$100,000 (see figure 4). None of the participants' annual income was reported under \$20,001. Eleven of all 30 participants' annual income is from \$20,001 to \$60,000. Nine of all participants' annual income is from \$60,001 to \$100,000. Seven of all participant's annual income is between \$100,000 to \$180,000 and two of the participant's household income is \$220,001 or above.

### *Materials*

The current study attempts to identify which issues married individuals find most problematic in marriage. To accomplish this, we have utilized the Survey of Married Individuals created by Risch, Riley, and Lawler for their 2003 study of newly married couples. Participants will complete a paper survey that is an abbreviated version of the Risch, Riley, and Lawler (2003) survey. The original Survey of Married Individuals included five cohorts of couples. These couples participated in PREP-WK from 1991 to 1995 and were married (or

planned to be married) in the 6 months preceding or following the program. Burnett (1993) details a description of the participant recruitment (Schilling et al., 2003).

The abbreviated version of Risch, Riley, and Lawler's survey (2003) we used for this study asks 14 demographic questions pertaining to: the gender of participants, ethnicity of participant and spouse, age of participant and spouse, years married, if cohabitated with spouse before marriage, religion of participant and spouse, if previously married for participant and spouse, how many times previously married for participant and spouse, and annual household income.

There are 43 questions asking participants to identify the level to which issues are problematic in their marriage. Participants were given a Lickert-like scale from 0-9 (0 is *Not problematic* and 9 is *Very problematic*) to rate issues like, *Trusting your spouse*, *Resolving major conflicts*, and *Sexual infidelity*. Then, participants were given 9 questions asking them to identify the level of agreement the couple has on specific issues like, *Handling family finances* and *Ways of dealing with in-laws*. Participants chose from: 1: *Always disagree* to 6: *Always agree*. Participants were finally asked to rate their degree of marital happiness on a scale of 0-7 with 0 representing *Very unhappy* and 7 representing *Perfectly happy*.

#### *Procedures*

Married graduate students from St. Mary's University were recruited to take a survey on perceived problematic issues in their marriage. Professors of counseling/psychology classes were asked by email or in person for permission to approach students for participation in this study. The subjects were given a brief description about how to complete the survey. Researchers also addressed issues with possible risk, informed consent, and address measure that would be taken to ensure confidentiality. The researchers explained that participation is voluntary and that students may withdraw from the study at any time. Students signed a form giving consent for their participation in the study. The researchers left the student alone to complete the survey. Twenty minutes was given for participants to complete the instrument, although most participants took approximately 5 minutes to complete the survey.

## Results

### *Top 10 problematic issues in all participants*

The top 10 problematic issues identified most for participants in this study are as follows:

Top 10 Problematic Issues Overall			Top 10 Problematic Issues for Hispanics			Top 10 Problematic Issues for Caucasians		
#	List	Mean (SD)	#	List	Mean (SD)	#	List	Mean (SD)
1	Balancing job & family	3.73 (2.46)	1	Balancing job & family	2.80 (2.44)	1	Balancing job & family	4.36 (2.10)
2	Time spent together with your spouse	3.27 (2.29)	2	Expectations about household tasks	2.5 (2.37)	2	Balancing parent & couple time	3.93 (2.89)
3	Resolving major	2.90	3	Time spent	2.40	3	Time spent	3.86

	conflicts	(2.64)		together with your spouse	(2.01)		together with your spouse	(1.96)
4	Balancing parenting and couple time	2.57 (2.74)	4	Resolving major conflicts	2.20 (2.25)	4	Resolving major conflicts	3.71 (2.79)
5	Personality differences	2.57 (2.19)	5	Parents or in-laws	2.10 (2.33)	5	Personality differences	2.93 (2.09)
6	Different recreational differences	2.27 (2.38)	6	Resolving minor conflicts	2.00 (2.00)	6	Communication with your spouse	2.86 (2.82)
7	Expectations about household tasks	2.17 (2.12)	7	Personality differences	1.80 (1.81)	7	Debt brought into marriage	2.57 (2.82)
8	Parents or in-laws	2.00 (2.38)	8	Lack of mutual friends	1.67 (1.73)	8	Financial decision-making	2.29 (1.94)
9	Resolving minor conflicts	1.97 (1.56)	9	Balancing parenting and couple time	1.60 (2.27)	9	Expectations about household tasks	2.29 (1.86)
10	Communication with your spouse	1.90 (2.26)	10	Different recreational interests	1.50 (1.72)	10	Financial situation	2.21 (2.12)

*Are problematic issues different for Hispanics and Caucasians?*

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship between the problematic issues in marriage reported by Hispanics and Caucasians. The independent variables are ethnicities, (Hispanic and Caucasian) and the dependent variables are 43 potential problematic issues in marriage. The results of the ANOVA were significant for 2 items of the 43 items.

The first significant item was *Balancing parenting and couple time*. This issue was found to be strongly significant,  $F(2, 27) = 4.04, p < .05$ . As assessed by partial eta squared, ethnicity accounted for 23% of the variance in ratings for *Balancing parenting and couple time*. The results showed Caucasians rated this issue more problematic in their marriage than Hispanics.

The second issue found to be strongly significant was *Debt brought into marriage*,  $F(2,27)=3.39, p < .05$ . As assessed by partial eta squared, different ethnic group factors accounted for 20% of the variance. The Levene's test did not support the assumption of equal variance across levels, so the Dunnett's test was conducted. The ANOVA showed a significant difference in the means between the Caucasian and Other group for *Debt brought into marriage*. The result indicated that Caucasians found this issue more problematic in their marriages.

*Agreement or disagreement between husbands and wives reported by participant*

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship between ethnicity and agreement between husband and wife as reported by participant. The independent variable is: ethnicity (Hispanic and Caucasian), and the dependent variables were 9 items in marriage: *Handing family finances, Matters of recreation, Demonstrations of affection, friends, intimates, intimate relations, Ways of dealing with in-laws, The amount of time that should be spent together, Conventionality, and Aims, goals and things believed to be important*. An ANOVA was conducted separately for each item. *Aims, goals and things*



*believed to be important* was the only item showing significance  $F(2,27) = 3.39, p < .05$ . The Levene's test did not support the assumption of equal variance across levels, so the Dunnett's test was conducted as a post-hoc test. The results indicate significantly higher agreement on aims, goals and things believed to be important in life for the Hispanic group compared to the Caucasian group.

*Does degree of marriage happiness differ by ethnicity?*

The mean of participant's *Degree of marriage happiness* is 5 (SD=2). The Caucasian group's mean is 4.57 (SD=1.95), and the Hispanic group's mean is 6 (SD=1.25). Although different, the means for *Degree of marriage happiness* between Hispanics and Caucasians were nonsignificant.

## Discussion

The results of this study indicate that Hispanics and Caucasian report somewhat different issues as being most problematic in marriage. The Caucasian and Hispanic groups differed primarily on feelings about finances and balancing parent and couple time. Caucasians report that *Debt brought into marriage* was one of the top ten problematic issues in their marriage. In contrast, Hispanics did not feel that debt brought to marriage was a top ten problematic issue in their marriage. There was a statically significant difference found in how the two groups viewed *Balancing parenting and couple time*. The Caucasian group felt that balancing parenting and couple time was more problematic than Hispanics. This could be related to how many Caucasians are parents compared to Hispanics, but parent status was not recorded in this study.

The national study conducted by Risch, Riley and Lawler (2003), on problematic issues in marriage, found many of the same top ten problematic issues reported by Caucasian participants in the current study. However, a large majority of the sample population in the Risch, Riley and Lawler study were Caucasian, in their first 5 years of marriage and had higher levels of education. Seven of the ten problematic areas noted in the Risch, Riley and Lawler (2003) study were also noted as problematic by the Caucasian participants in the current study. The only problematic issues not found in common were *Frequency of sexual relations*, *Husband employment*, and *Constant bickering*.

The generalizability of the Risch, Riley Lawler (2003) study is limited due to the lack of ethnic diversity in the sample population. In contrast, there are fewer matches on the top ten problematic issues perceived in marriage from Hispanic participants in the current study compared to participants in the Risch, Riley and Lawler (2003) study. Only three of the ten problematic issues reported in the Risch, Riley, and Lawler (2003) study were the same as the issues reported by Hispanic participants in the current study. The three issues found in common for Hispanics and Caucasians were *Balancing job and family*, *Expectations about household tasks*, and *Parent or in laws*.

Five of the ten problematic issues reported were the same for all three ethnic groups (Caucasians, Hispanics and Other). The common issues reported were: *Balancing job and family*, *Time spent together with spouse*, *Resolving major conflict*, *Personality differences*, and *Balancing parenting and couple time*. The data indicated there was significantly more disagreement for Caucasians than Hispanics on *Aims, goals, and things believed to be important in life*.

#### *Limitations*

Most limiting the generalizability of the current study are qualities related to the participant population. There is a lack of ethnic diversity among participants. Only Hispanic and Caucasian responses were examined for this research. There is a lack of religious diversity. Of the 30 participants, 23 identified as being Christian. There is a lack of socioeconomic diversity. The mean and median annual household income reported by participants was above the national and state average (U. S. Census Bureau, 2007). There is a lack of educational diversity. All participants were graduate students in counseling/psychology programs. There is a lack of gender diversity. Participants are disproportionately female (20 female and 10 male participants). The lack of diversity among the participants surveyed in this study may limit the generalizability of the findings to other populations.

Further limiting the findings of the current study are issues related to sampling and measurement. The small sample size of thirty participants limits the external validity. When sampling, participants were approached to participate by researchers with whom they were acquaintances. Both participants and researchers were students of counseling/psychology programs at St. Mary's University. This means of sampling may influence the accuracy of responses reported by participants. We suspect participants may have reported problems as less problematic and/or may have not addressed some items perceived as shameful. The method of surveying participants through self-report may limit the accuracy of the findings as well. Participants may not be able to evaluate their own marriages accurately or may not always be truthful in their reporting. By limiting the choices of problematic issues in marriage to those identified on the survey, the complexity and meaning of responses may be hindered. A Type I error could have been produced when determining significance of 43 items pertaining to problematic issues experienced in marriage because ANOVAs were conducted separately for all items.

Future research could improve generalizability of findings by including a larger participant population of richer ethnic, religious, gender, socio-economic, and educational diversity. It would be especially valuable to broaden the scope of the Caucasian and Hispanic population to include African-American and Asian-American groups. Researchers could also consider having outside observers rate problematic issues of couples through interviewing or observations. Researchers may decide that a more qualitative approach would be a better method to gather more complex information from participants.

Overall, the responses from the participants indicate that Balancing job & family and