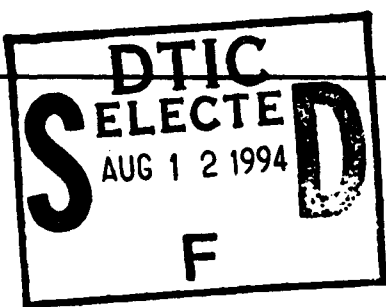


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BEER DRINKING GAMES:
CATEGORIES, LEVEL OF RISK, AND THEIR
CORRELATION WITH SENSATION SEEKING

By

Michael D. Howe

A THESIS

Presented to the Faculty of
The Graduate College at the University of Nebraska
In Partial Fulfillment of Requirements
For the Degree of Master of Education

Major: Health, Physical Education and Recreation

Under the Supervision of Professor Gary Martin

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BEER DRINKING GAMES: CATEGORIES, LEVEL OF RISK
AND THEIR CORRELATION WITH SENSATION SEEKING

Michael David Howe, M.Ed.

University of Nebraska, 1994

Adviser: Gary L. Martin

The purpose of this study was to provide a measure of validity to placing drinking games into categories and then to examine drinking game behavior in a quantitative context.

A panel of 8 experts completed a delphi-questionnaire, the results of which were then analyzed to determine a level of agreement on the categorization of 24 different drinking games. The proportion of agreement was high on almost all of the games.

A self-report questionnaire that measured drinking game behavior was completed by 284 college students enrolled in an undergraduate course at UNL. Results showed that 70% of the males and 66% of the females in the study reported playing at least one drinking game during the past year. A total of 80 different drinking games were reported, with quarters being the most frequently played game. There was statistical significance on the variable of residence. Proportionately, more Greek members participated in drinking games than the other students.

There was no statistically significant difference found on the measure of average rate of consumption (oz./min.) between the six drinking game categories. Subsequently, the drinking game categories were not found to

be statistically different on the measure of risk (defined as rate of consumption).

The study found that there was a statistically significant difference on the measure of sensation seeking (specifically disinhibition) between game players and non-game players. Drinking game players scored higher on sensation seeking measures than their non-game playing counterparts. Further, game players who reported participation in more games tended to score higher on disinhibition.

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CHAPTER 1

INTRODUCTION

Mark Twain once wrote: "Fortune knocks at every man's door once in a life, but in a good many cases the man is in the neighboring saloon and does not hear her." Today, the opportunity of a college education is "knocking" at the door of every college student, but much too often the student is in the "neighboring saloon". A 1985 survey found that alcohol was attributable to a 29% increase in academic failure and a 21% increase in student attrition (Gadaletto & Anderson, 1986). In a study done by Davis and Hunnicutt (1990), 36.6% of male and 19.1% of female college students reported having performed poorly on a test or important project due to alcohol, and 36% of the males and 22.1% of the females reported missing class due to alcohol use. In this same study, 73.3% of males and 57.9% of females report experiencing a hangover due to alcohol consumption. It's a logical process: Alcohol intoxication might cause a hangover, which might cause a student to miss class, which could contribute to poor class performance, which leads to academic failure. While this remains a plausible observation, this relationship is not necessarily uni-directional, and causation is not clearly established.

Academic failure is an important issue in the college environment, but an even larger one is the health of the the college student. Between

240,000 and 360,000 of the roughly 12 million college students will die of alcohol-related causes (Eigen & Quinlan, 1991).

College Drinking Behavior

Alcohol use among college students is not a new phenomenon, but the dynamics and level of alcohol consumption seem to change over the years. One study found that 81% of men and 77% of women had experience with alcohol in 1970, and in 1980, 87% of men and 89% of women had experience with alcohol (Lester & Leach, 1983). Note the substantial increase in the number of women who had experience with alcohol. Wechsler and Isaac (1991) reported a small decline in the amount of alcohol use among college students from 1977 to 1990, but reported a more significant decline in the amount of cigarette and other drug use among college students. While Wechsler and Isaac (1991) found a notable increase in the number of abstainers of alcohol, there was an increase in the number of drinkers classified as infrequent/heavy and frequent/heavy. O'Hare (1990) found that while there may be an overall decline in the number of college students who drink, there seems to be relative stability in the number of heavy drinkers with some regional variation.

An important consideration is the level or amount of alcohol consumption that college students experience is larger than the people of the same age who are not attending college. A national survey in 1990 found that 41% of college students had engaged in a bout of heavy drinking (five or more drinks in a row) compared with 34% of non-college students of

the same age. These results are similar to those described by Wechsler and Isaac (1991), which concluded that 43% of college students reported having consumed five or more drinks in a row in the previous two weeks, compared with 36% among their non-college age peers.

Among the college drinkers, freshmen tend to consume more alcohol than other college groups (sophomores, juniors and seniors). A 1978 study (Hinrichs & Haskell) determined that the highest level of consumption is found among freshman males. Wechsler and Isaac (1991) found that 47.9% of male and 21.2% of female freshman usually consumed five or more drinks in a row on a single occasion, and that 57.4% of the males and 35.5% of the females reported consuming five or more drinks in a row on at least one occasion in the past two weeks.

For this group of students that consume five or more drinks in a row on a single occasion, the label "binge" drinkers has been attached (Wechsler & Isaac, 1991; Eigen & Quinlan, 1991). Students who fall into this category are at an extremely high level of risk for experiencing alcohol-related problems (i.e. hangover, DWI, physical or sexual abuse, injury).

Description of Problem

"Binge" drinking, is dangerous because of the level of alcohol consumption which places the "binge" drinker at substantial increased risk for experiencing alcohol-related problems. One popular college activity that places a drinker in the "binge" category are drinking games.

A study done by Pederson (1990) found that there is a substantially higher alcohol consumption among youth (aged 14-19) that participated in drinking games than those who don't, even when controlling for other indicators of network 'wetness'. Network 'wetness' is a term that refers to the drinking environment around an individual (i.e. to what extent do peers and family members consume alcohol). One study (Engs & Hanson, 1993) concluded that drinking game participation appeared to increase alcohol-related problems primarily among more moderate drinkers, whereas heavy drinkers experienced more alcohol-related problems regardless of their drinking game participation. In a study done by Farrow (1987), it was discovered that 77.3% of a group of DWI offenders reported playing drinking games at a party.

One researcher even went as far as to say drinking games were nothing more than "highly stylized pranks" due to the reversal in competence that occurs as the drinking game progresses (Green & Grider, 1990). The labeling of drinking games as "highly stylized pranks" is probably not accurate and at this point not supported with empirical evidence. While a few drinking games might be described in this fashion, there are many drinking games being played that most people would not label as "highly stylized pranks". Therefore, there is utility in systematically placing drinking games into categories.

The empirical research on drinking games is extremely limited. Of the studies done on drinking games and drinking game behavior, most of them are descriptive in nature. The results of a few of these has been an attempt at classification of drinking games. Douglas (1987) placed drinking

games into four categories: Physical activity, Verbal/Intellectual skill, Games using Devices (e.g. cards, checkers chess), and Miscellaneous. Green & Grider (1990) put games into six categories: Motor skills, Verbal skills, Mathematical skills, Gambling actions, Media interaction, and Chug-a-lugs. Newman, Crawford, and Nellis (1991), propose that drinking games fall into five different categories: Consumption games, Skill games, IQ games, Unity games, and Team games. Griscom et al. (1984) have a unique way of classifying various drinking games: They refer to the categories as "boot factors" (a scale ranging from one boot to five boots). "Boot factor" is in reference to the likelihood of vomiting. A boot factor of one applies to games that have the lowest potential for throwing up. Five "boots" warns of "an almost assured heave" (Griscom et al. 1984, p. 24).

The first step in understanding drinking games is to come to an understanding on how to place drinking games into categories based on a definition of the category and a description of how the game is played. Based upon previous literature, this study will attempt to validate six categories of drinking games: Motor skill games, Consumption games, I.Q./Verbal skill games, Unity games, Team games, and Chance games.

The second research question is: Is there a varying degree of risk between these descriptions of drinking game categories? By discriminating between categories based upon risk, we can begin providing a framework in which to critically look at factors believed to be causing the high risk behavior (i.e. participation in a drinking game). One such possible construct is the third question that will be asked: Is there a correlation between people who score higher in sensation seeking and the classification of risk assigned

to drinking game categories? Sensation seeking is a personality trait based on a psychobiological theory that offers a psychopharmacological model for the biological basis of the trait, and has been central to understanding the biological disposition towards alcohol and drug abuse (Zuckerman, 1987). A number of research studies have positively correlated sensation seeking with heavy drinking, drug, and poly-drug use (Earleywine & Finn, 1991; Schall, Weede, & Maltzman, 1991; Alterman & Hall, 1990; McMillen, Pang, Wells-Parker, & Anderson, 1992; Segal & Merenda, 1975).

Based on these questions, three hypotheses are proposed:

1. There are six categories of drinking games: consumption, motor skill, I.Q./verbal skill, unity, team, and chance.
- 2: Some categories of drinking games have a higher level of risk than others.
- 3: People who participate in drinking games falling into a higher level of risk will score higher on the sensation seeking scale (a positive correlation).

CHAPTER II

REVIEW OF THE LITERATURE

This chapter reviews the literature on environmental and psychological factors affecting alcohol consumption, the historical context of drinking games, drinking game typology, and sensation seeking.

Environmental Factors Affecting Alcohol Consumption

Ninety percent of college-age students drink in environments where heavy drinking is normative (Dana, Pratt, Kochis, and Andrews, 1993). When placed into an environment where there is heavy drinking occurring, there seems to be two important influencing factors that are related to frequency and amount of consumption. The first is that the presence of a greater number of friends in the drinking situation tends to lead to increased alcohol consumption (Brennan, Walfish, and Au Buchon, 1986). The second factor is that of peer pressure. The most consistent and potent predictor of frequency and consumption of alcohol use among entering freshman is peer pressure (Sherry and Stolberg, 1987). In drinking game situations, the social context is often laid out in such a manner that these environmental factors usually dictate the participation in a drinking game.

Psychological Factors Affecting Alcohol Consumption

One personality trait that has been shown to correlate with quantity and frequency of alcohol use is sensation seeking. Studies that examined self-reported frequency and quantity of alcohol use found that students who used alcohol tended to be more sensation seeking, and that heavier alcohol users scored higher on the sensation seeking variables than lighter alcohol users (Brennan, et al., 1986).

Another psychological variable that seems to be predictive of alcohol use is stress and tension. Brennan et al. (1986) summarized the works of Ratcliff and Burkhart (1984), and Schwarz, (1978, 1982), looking at the distinction between tension-reduction and stimulus (sensation seeking) functions of alcohol as related to college student alcohol use. Brennan concluded that the stimulus enhancing function of alcohol (sensation) was more relevant than the tension-reduction function of alcohol for college students.

Historical Context of Drinking Games

Drinking games weren't invented yesterday; in fact, they have been known to be in existence for over 2,000 years. The "symposium" was a social event for Greek men, which included entertainment (heterosexual and homosexual lovemaking, and music) and the consumption of wine. A popular game played by the Greek symposiasts was the "capping game", which involved the recitation of poetry. Another game played by the Greeks

was "cottabus", a game which required manual dexterity. Wine was dropped from one vessel into another, the goal being spilling the least while at the same time making the most noise (Garland, 1982).

The Romans also enjoyed their wine. Following a traditional dinner gathering, they would have a party called a "comissatio". One drinking activity at this party involved rolling dice to see who would be in control of the others drinking.

In Britain, cumulative or enumerative songs have always been a favorite social aspect to drinking in the taverns. One of the most popular is "Tom Pearce", which is a cumulative tongue twister (Douglas, 1987).

Although drinking games are not a new phenomenon, the number and types of the games have expanded over the last 10-15 years. Whereas students in the 50s and 60s had a few drinking games that they played, to include "chug-a-lug", today's youth participate in dozens of different drinking games. Illustrative of the growth in drinking game practices, a 1987 study done by Douglas showed that out of 15 students aged 30 years and older, only 3 had ever participated in drinking games. In a recent pilot study (Howe, 1993), it was found that 88.9% of college students had participated in a drinking game. Another study (Newman, Crawford, and Nellis, 1991), revealed that 70% of men and 75% of women who reported drinking alcohol had played a drinking game during the previous 4 weeks.

One researcher has labeled drinking games "highly stylized pranks" due to their reversal of competence: The longer the game is played, the less adept the players become due to the increasing level of intoxication (Green and Grider, 1990).

One good example of Green and Grider's definition of "prank" would be the game "TEGWAR", which stands for "The Endless Game Without Any Rules". Basically the game involves the "ganging up" on an unwitting person by making up rules as the game goes on to continually make that person drink (Griscom, Rand, Johnson, Balay, 1986). While the Green et al. (1990) argument is well taken, it is not accurate for some games. There are a number of games that are consumption oriented that involve equal participation and consumption of all involved ("Tend the Teat" is one example).

Drinking Game Typology (categories)

While good empirical research on behaviors and outcomes related to drinking games is extremely limited, there are a few researchers doing descriptive types of studies. As a result of some of these studies, there has been an attempt to classify drinking games into categories.

Douglas (1987) attempted to classify drinking games into four major categories: Physical activity, which includes games such as *Quarters*, *funnels*, and *thumper*. Verbal/Intellectual skill, which includes *bizz-buzz*, *fuzzy duck*, and *turtles*. Games Using Devices, e.g. cards, checkers, chess, which include *acey deucey*, *bar golf*, and *beer checkers*. Miscellaneous Games, which includes *Batman*, *beer hunter*, and *dynasty*.

Green et al. (1990) divided games into six categories: Motor skills, verbal skills, mathematical skills, gambling actions, media interaction, and chug-a-lugs.

Newman, Crawford, and Nellis (1991), proposed that drinking games fall into five different categories: Consumption games, skill games, IQ games, unity games, and team games.

Griscom et al. (1984) have a unique way of classifying various drinking games: They refer to the categories as "boot factors" (a scale ranging from one boot to five boots. "Boot factor" is in reference to likelihood of "delivering street pizza" (throwing up). A boot factor of one applies to games that have the lowest potential for throwing up. Five "boots" warns of "an almost assured heave" (Griscom et al. 1984, p. 24). An example of a boot factor five game is "Beer Hunter", based upon the movie the "Deer Hunter", a movie about the Vietnam war. The concept behind the game comes from a scene in the movie where the characters play "Russian roulette". The game starts by blindfolding the first two participants and then shaking one beer and placing that beer along with five others on a table between the two participants. When the blindfolds are removed, the first player picks up a beer and holds it under his nose while opening it. If it's not the one that is shaken up, the next player goes. This goes on until one player "commits nasal suicide" (opens the beer that is shaken up). That player then consumes that beer along with any others that are open on the table. The winner remains and the process continues with each player rotating in and out of the game.

The categories that this study proposes to classify drinking games are identical to Newman et al. (1991) except that I intend to add a sixth category named "Chance". This category would include games such as "deer hunter" and gambling/card games.

Assessment of Risk

While problem drinking is only moderately correlated with alcoholic patterns later in life (Kraft, 1988), the major risks associated with the large amounts of alcohol that are generally consumed during drinking games are immediate. These risks include drunk-driving, physical violence, and acute alcohol poisoning. There are other risks also which are not as easily realized. Something seemingly innocuous as unplanned sex can have deadly consequences (possibility of AIDS).

There are a two ways to measure or assess risk. One is to look at risk in terms of the negative outcomes (consequences) following alcohol consumption in a drinking game(s). An inventory such as one used by Howe (1993) and Davis and Hunnicutt (1990) which measures reported negative consequences following alcohol use could be used to assess risk. The problem with this is the accuracy of the self-report, especially given the nature of the situations listed on the inventory.

The second and perhaps the best way to assess risk in relation to drinking games would be to use a quantity-frequency (Q/F) calculation to determine consumption. A Q/F calculation would merely be a rate of consumption (i.e. ounces consumed per minute). The higher the rate of consumption, the more likely a person is to be intoxicated, which increases the chance of a negative outcome.

After classifying the drinking games and assigning a level (or other measurement) of risk, then it would be possible to correlate sensation

seeking scores with drinking game participation. The possible utility of such measures might be to better direct alcohol education efforts and to provide alcohol evaluators/assessors with some collateral information.

Sensation Seeking

Sensation seeking is a personality trait that is defined as the need for varied, novel, and complex sensations and experiences and the willingness to take physical and social risks for the sake of such experience (Zuckerman, 1986). Sensation seeking has been used across a wide variety of areas and disciplines, although mainly in psychology and pharmacopsychology. Sensation seeking has been shown to predict how long novice scuba divers will stay under water and how deep they will go on their first dive (Zuckerman, 1983). Sensation seeking scores (SSS) are also relatively higher among members of volunteer salvage divers and firefighter groups, which take even greater chances than sports divers (Zuckerman, 1983).

For the purpose of this study though, the greatest significance of sensation seeking is that it is central to an understanding of the biological disposition toward drug abuse (Zuckerman, 1986). Sensation seeking has been shown to be a personality trait that is highly correlated with most types of drug and alcohol use, and is most highly discriminating in comparisons of drug abusers with control populations (Zuckerman, 1986).

Form V of the sensation seeking scales (SSS) consists of four subscales. The first is thrill and adventure seeking (TAS). This measures the desire to try risky sports or activities involving speed, movement, and the

like. The second subscale is experience seeking (ES), which measures the desire to seek experience through the mind and senses. The third subscale is disinhibition (Dis), and it measures the desire for or actual enjoyment of uninhibited and socially extraverted activities such as drinking, parties, and sex. The fourth subscale is boredom susceptibility (BS) which measures aversion to monotony or lack of change and a preference for the unpredictable (Zuckerman, 1986).

Sensation seeking has shown, over time, to correlate quite highly with increased alcohol use as well as drug and poly-drug use (Earleywine & Finn, 1991; Andrucci, Archer, Pancoast, & Gordon, 1989; Schall, Weede, & Maltzman, 1991; McMillen, Pang, Wells-Parker, & Anderson, 1992). In a 1980 study of 1,095 college students and 350 naval personnel, the ES and Dis subscales were found to be the most highly predictive of drug abuse compared to the other personality scales (Segal, Huba, & Singer, 1980). Another study found that alcohol use tended to be more highly related to the Dis subscale in college students (Schwarz, Burkhart, & Green, 1978).

The Dis factor is less affected by social, racial, and cross-cultural differences than the other factors, and is more closely tied with certain biological traits (Zuckerman, 1979). "Dis reflects a traditional pattern of nonconformity through rebellion against strict codes about socially acceptable behavior . . . it is also the closest approach to the diagnostic construct of "sociopathy" in the SSS (Zuckerman, 1979, p. 103)".

The discussion of the biological basis for sensation seeking is beyond the scope of this study, but it should be noted that the sensation seeking trait model also implies that drugs are used because of their effects on

neurotransmitters and their relationship with the cortex (cortical arousal levels) in the brain (Zuckerman, 1986).

CHAPTER III

METHODS AND PROCEDURES

This chapter describes the sample, the sampling technique, and the variables and measures used in the study.

Description of the Subjects

To classify and validate the categories of beer drinking games, a Delphi technique was employed. This technique was used with an expert panel consisting of 8 members. These members represented a cross-section of people from areas to include health education (n=4), educational psychology (n=2) and chemical dependency treatment (n=2). The educational experiences represented by degrees of this panel were: 5 Ph.D's, 1 MS, 1 M Ed and 1 BA.

To assign a level of risk to the categories (at an ordinal level) and correlate with sensation seeking, a convenience sample of college students was utilized. The sample group consisted of undergraduate students in a Healthy Lifestyles class at the University of Nebraska-Lincoln. The students in this class came primarily from the Teachers College.

Sampling Technique for Delphi-Questionnaire

To classify the beer drinking games, an expert panel was sampled by way of the Delphi technique. A questionnaire (see Appendix A) was mailed to each of the eight members of the panel, and a return no later than (RNLT) date was indicated on the questionnaire. The questionnaire required the panel members to place 24 different drinking games into the 6 different categories. A measure of consistency in classifying the drinking games was examined descriptively first and a proportion of agreement was calculated for each game. To examine the differences in agreement on a more discriminating level, an extended Cohen's & Kapa method (Siegel & Castellan, 1988) was used to help quantify the level of agreement.

Pilot Test of Drinking Game Questionnaire

Before the questionnaire on drinking game behavior and sensation seeking was distributed to the sample used in the study, a pilot test of the questionnaire was conducted. The pilot test group was a convenience sample of 17 students in an undergraduate health education class. From the pilot test, it was determined that two of the questions on the sensation seeking scale were hard to comprehend due to terminology that was no longer understood. These questions were then clarified on the final form of the questionnaire. Because so few people reported more than six drinking

games, the decision to modify the number of drinking games that could be reported was also made (the number dropped from 10 to 6).

Sampling Technique For Drinking Game Questionnaire

The sampling method that was employed to collect data from the undergraduate college students was a convenience sample. There were 284 students who returned questionnaires from a class of 365 for a response rate of 77.8%. The data were collected by way of a questionnaire (see Appendix B) consisting of a series of 4 questions (3 fill-in-the-blank and one multiple choice) for each drinking game they reported (for up to six games) and 20 multiple choice items that measured sensation seeking. There were four demographic variable questions at the end of the questionnaire. The questionnaire was anonymous. The validity of self-reports is sometimes questioned, but there is increasing literature that supports the veracity of self-reports (Hansen, Malotte, & Fielding, 1985; Little, Uhl, Labbe, Abkowitz, & Phillips, 1986).

The data were collected from the students during the final laboratory period in which they were engaged in a post-course evaluation process.

Variables and Measures

In this study, there were three variables. The first variable is the drinking game categories. Up to this point, the literature has done little to define drinking game categories. What exists are a few articles where the

authors conceptually define some categories and suggest a few games that would fall into each of their designated categories. While inferring distinct categories based upon logical argument is utilitarian and reasonably plausible, there needs to be a more concrete and more objective way to rationalize these distinct categories. For this study, it was proposed that there are 6 distinct categories which are: Motor skill games, Cognitive skill games, Consumption games, Unity games, Team games, and Chance games. The proposed categories were based upon previous literature and the logical definition of each category. To validate these categories, the Delphi technique which involved a panel of 8 experts was used. Independently, these members completed a questionnaire that required them to place 24 different games into the 6 drinking game categories. The data collected from this instrument were analyzed using Cohen's Kappa and provided a measure of validity to the hypothesized categories of drinking games.

The second task was that of determining risk. Conceptually, in this study, risk was defined as the possibility or likelihood of a negative event happening as a result of consuming alcohol. Negative events include, but are not limited to: intoxication, hangovers, trouble with police or other authorities, damaging property, getting into an argument, missing a class, being arrested for DWI/MIP, being taken of or taking advantage of someone sexually, or personal injury. The likelihood of the occurrence of a negative event is (usually precipitated) by alcohol intoxication. The major determinant of intoxication is the quantity of alcohol that is consumed over a given period of time. The more alcohol that is consumed in a shorter period

of time, the more likely intoxication will occur. Therefore, the operational definition of this variable (risk) was the measurement of quantity and rate of alcohol consumption. This measure was broken down into ounces of alcohol consumed per minute. (Risk = oz./min.). As an example, if a person reported playing a game for one hour and consuming 5 beers (one beer is defined as 12 oz.), then the value would be 1.0 ($5 \times 12/60 = 1.0$). After values were obtained for all the drinking games reported, the means of the games were computed. A non-parametric correlation method (Kruskal-Wallis) was used to rank order the categories of drinking based upon risk (rate of consumption).

The third variable in this study was sensation seeking. Sensation seeking has been shown, over time, and to a great extent, to correlate quite highly with increased alcohol use as well as primary drug and poly-drug use (Earleywine & Finn, 1991; Andrucci, Archer, Pancoast, & Gordon, 1989; Schall, Weede, & Maltzman, 1991; McMillen, Pang, Wells-Parker, & Anderson, 1992). Conceptually, sensation seeking is a personality trait. It has been defined by Zuckerman (1972) as comprising thrill and adventure seeking, experience seeking, disinhibition, and boredom. Thus, the operationalization of this construct lies in the four subscales which comprise the sensation seeking scale (the subscales are referred to as TAS, ES, Dis, and BS). Operationally, for this study, sensation seeking was defined as a measure of the Disinhibition (Dis) and Experience seeking (ES) subscales. In the literature, these two subscales correlate highly with increased alcohol (and other drug) use. The ES subscale measures the desire to seek experience through the mind and the senses; through music, art, travel, and

an unconventional style of life with unconventional friends (Zuckerman, 1987). The Dis subscale measures the desire for or actual enjoyment of uninhibited and socially extraverted activities, e.g., parties, social drinking, and a variety of sexual partners.

The sample of college students was administered the two sensation seeking subscales (Dis and ES), which consisted of 10 items each. These items were incorporated into the questionnaire, and followed the measures on risk and preceded the demographic data. After scoring the sensation seeking (SSS) measures on the questionnaire, an analysis of variance (ANOVA) was conducted to compare sensation seeking scores between drinking game players and non-game players. Following this ANOVA, a factorial (2-way) ANOVA was accomplished to correct for gender.

Validation of the Data

To validate the data, two steps were taken. The first was to examine the printouts a number of times to check for invalid values, and to insure that correct instructions were given for calculating the desired data.

The second step was to check the accuracy of the data entry by comparing a computer printout of the raw data that was entered with the questionnaires. In this process, there were nine errors that were identified and corrected.

CHAPTER IV

RESULTS

This study was conducted to examine the validity of drinking game categories, to examine drinking game behavior (i.e., the types of drinking games and rates of consumption associated with them), and to examine the relationship between the psychobiological trait of sensation seeking with drinking game behavior. This chapter describes the samples, restates the research hypotheses and presents the results from both the delphi-questionnaire and the drinking game behavior/sensation seeking questionnaire.

Description of the Questionnaire Sample

The sample population of college students consisted of the students enrolled in a healthy lifestyles course taught during the spring of 1994 at the University of Nebraska-Lincoln (UNL). Institutional Review Board (IRB) approval for testing was obtained from the UNL IRB (see Appendix C). The majority of the students enrolled in this course were from the teacher's college, although there were students from other colleges within the UNL system.

Questionnaires were distributed during a course evaluation which was conducted the week before the final exam at the end of the semester.

The subjects had the opportunity to return the questionnaire during the evaluation period or anytime before the end of the semester. There were 365 questionnaires distributed and 284 were returned for a response rate of 77.8%.

The sample consisted of 106 males (38.5%) and 169 females (61.5%). As seen in Table 4.01, the grade level (year in school) of the subjects were fairly evenly distributed among the undergraduate population. Freshmen represented 20.7% of the sample, sophomores 28.7% of the sample, juniors 23.3%, and seniors 25.5%. There were 5 graduate students in the sample which accounted for 1.8% of the sample.

Table 4.01 also describes the students in terms of residence and age. As seen in the table, the majority of the students in the sample reported living on their own (independent) and represented 46.5% of the sample. The next largest group in the sample according to residence was students who lived in a residence hall at UNL and accounted for 23.6% of the sample. The percentage of students living with their parents was 12.4%, and students residing in Greek houses comprised 17.5% of the sample.

The majority of the students in the sample (79.49%) were aged 19 to 22 years. There were 26 (9.5%) 18- year-olds, 55 (20.1%) 19- year-olds, 68 (24.9%) 20- year-olds, 53 (19.4%) 21- year-olds, 41 (15.0%) 22- year-olds, and 12 (4.4%) 23- year-olds. There were 18 (6.7%) subjects who reported they were aged 24 to 42 years. The mean age of the sample was 20.8 (S.D. = 2.91). Table 4.01 illustrates the demographic data.

Table 4.01

Frequency Distribution Of College Student Sample by
Gender, Year In School, Residence, And Age

VARIABLE	FREQUENCY	PERCENT
<u>Gender</u>		
Male	106	38.5
Female	169	61.5
Total Sample	275	100.0
<u>Year in School</u>		
Freshman	57	20.7
Sophomore	79	28.7
Junior	64	23.3
Senior	70	25.5
Graduate	5	1.8
Total Sample	275	100.0
<u>Residence</u>		
Independent	128	46.5
Parents	34	12.4
Residence Hall	65	23.6
Greek	48	17.5
Total Sample	275	100.0
<u>Age</u>		
18	26	9.5
19	55	20.1
20	68	24.9
21	53	19.4
22	41	15.0
23	12	4.4
24-42	18	6.7
Total Sample	273	100.0
Mean Age	20.82	S.D. = 2.912

Relevant to this study are demographic variables as they relate to drinking game players versus non-drinking game players. These data are given in Tables 4.02 and 4.03.

The proportion of males and females who participate in drinking games is fairly equal (69.8% for males, compared with 66.3% for females, chi-square ($df=1$) = .3727, $p = .5415$). There also is no overall statistically significant difference between game players and non-game players on the variable of year in school.

There was a statistically significant difference ($p=.0005$) between game and non-game players on the variable residence. Subjects in the sample who reported living in a Greek house were more likely to be game players (81.3%), followed by residence hall subjects (70.8%) and independent subjects (68.8). Subjects who reported living with their parents tended to not participate in drinking games (61.8% non-game players versus 38.2% game players). The Chi-Square was 17.85 ($df=3$).

On the variable of age, drinking game players tended to be younger. The mean age of game players was 20.49 (S.D. = 1.818), compared with a mean age of 21.55 (S.D. = 4.331) for non-game players. A separate variance estimate ($t=2.20$) yields a 2-tailed probability ($df=102$) of $p = .030$. A pooled variance estimate was calculated ($p=.005$), but the separate variance is reported due to the violation of the principle of homogeneity of variance.

Table 4.02

Frequency Distribution Of Game players Vs. Non-Game Players
By Gender, Year In School, And Residence.

VARIABLE		GAME PLAYERS (N = 186)	NON-GAME PLAYERS (N = 89)	TOTAL
<u>Gender</u>				
Male	N	74	32	106
	%	69.8	30.2	100.0
Female	N	112	57	169
	%	66.3	33.7	100.0
Chi-Square (df = 2) = .3728 Significance = .5415				
<u>Year In School</u>				
Freshman	N	39	18	57
	%	68.4	31.6	100.0
Sophomore	N	53	26	79
	%	67.1	32.9	100.0
Junior	N	48	16	64
	%	75.0	25.0	100.0
Senior	N	44	26	70
	%	62.9	37.1	100.0
Graduate	N	2	3	5
	%	40.0	60.0	100.0

Chi-Square (df = 4) = 4.0872 Significance = .3943

(continued)

Table 4.02 (Continued)

VARIABLE		GAME PLAYERS (N = 186)	NON-GAME PLAYERS (N = 89)	TOTAL
<u>Residence</u>				
Independent	N	88	40	128
	%	68.8	31.3	100.0
Parents	N	13	21	44
	%	38.2	61.8	100.0
Res. Hall	N	46	19	65
	%	70.8	29.2	100.0
Greek	N	39	9	48
	%	81.3	18.7	100.0
Chi-Square (df = 3) = 17.8546 Significance = .00047				

Table 4.03

Variable of Age by Game Players Versus Non-Game Players

	FREQUENCY	MEAN	S.D.	t (df=102)
Game Players	185	20.49	1.818	2.20
Non-Game Players	88	21.55	4.331	
Total Sample	173			

2-tailed probability = .030

Tables 4.04 through 4.11 provide a description of the drinking behavior of game players. Variables of number of games reported, number of beers consumed, average rate of consumption (oz./min.), average ounces of beer consumed, and average minutes usually spent participating in drinking games are shown by gender and also by age.

Among the students reporting participation in drinking games, females, on average, report playing in more drinking games than males (3.54 games compared with 3.28 games), but it was not a statistically significant difference (Table 4.04). There was also no statistical significance in the number of games reported by the variable of age (Table 4.05).

As seen in Table 4.06, males report consuming more beers (ave.=5.46) than females (ave.=3.43, $F = 48.47$).

There is also statistical significance in the difference between number of reported beers consumed by the variable of age (Table 4.07). Students aged 22 years and 24 through 42 years reported consuming a greater number of beers than the 18, 19, 20, 21, and 23 year-old students.

Table 4.08 shows that there is a statistically significant difference in the average rate of beer consumption (oz./min.) between males and females (with a higher consumption rate for males, compared with females). Table 4.09 illustrates that there is no statistical significance in the rate of beer consumption as a function of age.

In Table 4.10, there is a statistically significant difference by gender in the average length of time usually spent playing a drinking game. Males reported spending an average of 60.07 minutes playing a drinking game, while females reported spending an average of 51.05 minutes playing a

drinking game. Table 4.11 shows that there is no statistical significance in the average reported time playing a drinking game on the basis of age.

Table 4.04

Description and ANOVA Summary of
Number of Drinking Games Reported By Gender

VARIABLE	N	MEAN	S.D.
Male	74	3.28	1.810
Female	112	3.54	1.959
Total	186	3.44	1.900

Source of Variation	Sum of Squares	df	Mean Square	F Value	Sig. of F
Between Groups	2.82	1	2.82	.782	.3775
Within Groups	664.89	184	3.61		

Table 4.05

Description and ANOVA Summary of
Number of Drinking Games Reported By Age

VARIABLE	N	MEAN	S.D.
Age 18	20	3.20	1.881
Age 19	33	3.70	1.960
Age 20	48	3.52	2.042
Age 21	39	3.56	1.818
Age 22	31	3.26	1.712
Age 23	10	3.30	2.003
Age 24-42	11	2.18	1.328
Total	192	3.40	1.880

Source of Variation	Sum of Squares	df	Mean Square	F Value	Sig. of F
Between Groups	22.50	6	3.75	1.06	.3870
Within Groups	653.41	185	3.53		

Table 4.06

Description and ANOVA Summary of
Number of Beers Consumed Reported By Gender

VARIABLE	N	MEAN	S.D.
Male	74	5.46	2.419
Female	111	3.43	1.545
Total	185	4.24	2.178

Source of Variation	Sum of Squares	df	Mean Square	F Value	Sig. of F
Between Groups	182.75	1	182.75	48.47	.0000
Within Groups	689.91	183	3.77		

Table 4.07

Description and ANOVA Summary of
Number of Beers Consumed Reported By Age

VARIABLE	N	MEAN	S.D.
Age 18	20	2.97	1.259
Age 19	33	4.20	2.317
Age 20	48	4.00	2.058
Age 21	39	4.25	1.840
Age 22	30	5.31	2.772
Age 23	10	4.19	1.314
Age 24-42	11	6.18	2.604
Total	191	4.32	2.131

Source of Variation	Sum of Squares	df	Mean Square	F Value	Sig. of F
Between Groups	109.70	6	18.28	4.024	.0008
Within Groups	835.91	184	4.54		

Table 4.08

Description and ANOVA Summary of
Average Rate of Consumption Reported By Gender

VARIABLE	N	MEAN	S.D.
Male	74	1.56	1.459
Female	111	.97	.491
Total	185	1.21	.997

Source of Variation	Sum of Squares	df	Mean Square	F Value	Sig. of F
Between Groups	15.31	1	15.31	15.40	.0001
Within Groups	181.98	183	.99		

Table 4.09

Description and ANOVA Summary of
Average Rate of Consumption Reported By Age

VARIABLE	N	MEAN	S.D.
Age 18	20	1.14	.699
Age 19	33	1.09	.703
Age 20	48	1.04	.585
Age 21	39	1.46	1.829
Age 22	30	1.33	.748
Age 23	10	1.22	.881
Age 24-42	11	1.35	.832
Total	191	1.22	1.038

Source of Variation	Sum of Squares	df	Mean Square	F Value	Sig. of F
Between Groups	5.09	6	.84	.78	.5809
Within Groups	198.41	184	1.07		

Table 4.10

Description and ANOVA Summary of
Average Time Usually Played Reported By Gender

VARIABLE	N	MEAN	S.D.
Male	74	60.07	29.135
Female	111	51.05	21.557
Total	185	54.66	24.858

Source of Variation	Sum of Squares	df	Mean Square	F Value	Sig. of F
Between Groups	3615.92	1	3615.92	5.85	.0165
Within Groups	113080.71	183	617.92		

Table 4.11

Description and ANOVA Summary of
Average Time Usually Played Reported By Age

VARIABLE	N	MEAN	S.D.
Age 18	20	42.40	16.026
Age 19	33	55.55	22.250
Age 20	48	54.13	24.349
Age 21	39	53.53	30.164
Age 22	30	60.01	27.591
Age 23	10	58.09	18.203
Age 24-42	11	72.98	39.394
Total	191	55.24	26.022

Source of Variation	Sum of Squares	df	Mean Square	F Value	Sig. of F
Between Groups	7701.38	6	1283.56	1.89	.0837
Within Groups	124594.99	184	677.14		

Description of the Expert Panel

The expert panel was used to determine if the drinking game categories were meaningful descriptions of student drinking behavior. The expert panel that completed the Delphi questionnaire was selected from within the local community and included eight professionals from the following disciplines/ areas of expertise: health education (n=4), educational psychology (n=2), and chemical dependency treatment (n=2). The panel members were asked to put each of the 24 different drinking games into one of six categories. The categories and respective codes are as follows: Motor skill games = 1, Consumption games = 2, I.Q./Verbal skill games = 3, Unity games = 4, Team games = 5, and Chance games = 6.

Hypothesis 1: Beer drinking games can be placed into six categories: Consumption, Motor skill, I.Q./Verbal skill, Unity, Team, and Chance.

Out of the 24 beer-drinking games, there was perfect proportion of agreement (1.0000) on 13 of the games. This is equivalent to perfect rater agreement on 54.17% of the 24 drinking games that the panel members placed into the categories. A proportion of agreement of .5357 or greater was determined on 20 out of the 24 drinking games, thus yielding rater agreement proportion at a level of .5357 or higher at 83.33%. Four beer-drinking games (Suck and Blow, Blow Pong, Thumper, and Beer-an Inning

Baseball,) had considerably less agreement (proportions of agreement of .4643, .3929, .3928, and .3214 respectively). An extended Cohen's Kappa, a statistical correlation that allows for adjustment for chance agreement was utilized to analyze the proportion of agreement. The Cohen's Kappa over all 24 games was .7486. Table 4.12 details the measurement of agreement of the classification of the 24 beer-drinking games.

Table 4.12

Agreement Between Expert Panel Members
On the Classification of Beer-Drinking Games

NUMBER AND NAME OF BEER-DRINKING GAME	CATEGORY	FREQUENCY	PERCENT	PROPORTION OF AGREEMENT
1. Quarters	1	8	100.0	1.000
2. Up & Down the River	6	8	100.0	1.000
3. Bullshit	3	8	100.0	1.000
4. Hi-Lo	6	8	100.0	1.000
5. Thumper	1	5	62.5	.392
	3	2	25.0	
	4	1	12.5	
6. Mexican	3	1	12.5	.750
	6	7	87.5	
7. Caps	1	7	87.5	.750
	4	1	12.5	
8. Suck and Blow	1	2	25.0	.464
	4	5	62.5	
	5	1	12.5	

(continued)

Table 4.12 (Continued)

NUMBER AND NAME OF BEER-DRINKING GAME	CATEGORY	FREQUENCY	PERCENT	PROPORTION OF AGREEMENT
9. Beer-an Inning	2	4	50.0	.321
	4	3	37.5	
	6	1	12.5	
10. Slam	5	8	100.0	1.000
11. Tending the Teat	2	8	100.0	1.000
12. Beer Hunter	6	8	100.0	1.000
13. Beer Pong	1	8	100.0	1.000
14. Tang	5	7	87.5	.750
	2	1	12.5	
	2	1	12.5	
15. Hi Bob	2	1	12.5	.585
	4	6	75.0	
	6	1	12.5	
16. Smurf	2	1	12.5	.585
	4	6	75.0	
	6	1	12.5	
17. 100 Beer Club	2	8	100.0	1.000
18. Blow Pong	1	2	25.0	.392
	4	1	12.5	
	5	5	62.5	
19. Turtles	3	8	100.0	1.000
20. Bite-the-Bag	1	6	75.0	.5357
	2	1	12.5	
	4	1	12.5	
21. U-Chug	2	8	100.0	1.000
22. Boot-a-Bout	2	6	75.0	.571
	4	2	25.0	
23. Dizzy Izzy	5	8	100.0	1.000
24. Bizz-Buzz	3	8	100.0	1.000

Cohen's Kappa = .7486

N = 8 for each game

Hypothesis 2: Some categories of drinking games have a higher level of risk than others. Consumption games are the highest in risk.

There were a total of 80 different beer-drinking games reported by students in this study. Of the 80 games, 61 were placed into one of the five specified categories. There were 19 drinking games that were placed into an unspecified category (category 7) and not used in the analysis due to the inability to accurately determine how the drinking game was played. A complete list of the reported drinking games and their reported frequencies is given in Appendix D. It is also important to note that there were no drinking games reported that fell into category 5 (Team games).

Drinking games that were reported less than 10 times were not included in the analysis. Drinking games that were reported less than 10 times are likely to be idiosyncratic and therefore weaken the overall analysis. After eliminating these infrequent drinking games from the analysis, there were 17 reported drinking games left in the analysis.

The most frequently played game was "quarters" (reported by 138 subjects, accounting for 26.2% of the games). Other frequently played games were "asshole" and "up and down the river" (reported 68 and 58 times to account for 12.9% and 11.0% of the reported games respectively). Table 4.13 lists the 17 drinking games used in the analysis, their reported frequencies, percentages, and the mean rate of alcohol consumption (in ounces per minute). The mean rate of alcohol consumption among these 17 drinking games (523 cases) = 1.1331 (S.D.=.7824). The "N" of cases for the 17 games is 523.

Table 4.13
 Frequency and Mean Rate of Consumption of Beer-Drinking
 Games Reported 10 Times or Greater

GAME/GAME CODE	FREQUENCY	PERCENT	MEAN RATE	
			(OZ./MIN)	S.D.
Quarters/01	138	26.2	1.02	.603
Asshole/03	68	12.9	.95	.622
Up & down the river/04	58	11.0	1.50	1.612
Beer dork/02	28	4.2	.96	.503
Bullshit/07	28	5.3	1.09	.712
Circle of death/10	27	5.1	1.57	1.380
Red-black, Hi-lo/08	26	4.9	1.47	1.370
Kings/22	22	4.2	1.12	.699
Fuck you/05	21	4.0	1.13	.711
Drunk driver/16	20	3.8	1.62	.925
3-Man/13	19	3.6	1.01	.527
Pyramid/18	18	3.4	.97	.518
Cops and robbers/14	15	2.8	1.02	.595
Chandeliers/39	13	2.5	1.13	.651
Categories/12	12	2.3	.83	.424
Drug dealer/24	10	1.9	1.27	.837
Presidents/36	10	1.9	.97	.708

To test the hypothesis that drinking game risk was related to drinking game category, an attempt to ordinaly rank the drinking game categories based upon risk (defined as the rate of consumption of alcohol) was performed using an Analysis of Variance (ANOVA). An "F" ratio of .3114 and an "F" probability of .7325 were obtained. Due to the extreme differences in the number of drinking games reported between the categories, the principle of homogeneity of variance was violated (Cochran's $C = \frac{\text{max. variance}}{\text{sum variances}} = .4249$ with $p=.004$).

Subsequently, a non-parametric statistical measurement, the Kruskal-Wallis one-way ANOVA, was used (Table 4.14). Drinking game categories 2 (consumption games) and 4 (unity games) were excluded from the analysis due to the small N ($N = 12$ and $N = 9$ respectively). Drinking game category 5 (team games) was not reported and therefore not a part of the data.

Drinking game category 1 (motor skill games) had 151 reported cases with a mean rate of consumption of 1.03 ounces of alcohol (beer) per minute (S.D. = .606). Category 3 (I.Q./verbal skill games) had 61 reported cases with a mean rate of consumption of 1.058 (S.D. = .665). Category 6 (Chance games) had 315 reported cases with a mean consumption rate of 1.19 (S.D. = .680). The Chi-Square value (corrected for ties) obtained was ($df=2$) 3.869 with significance of .1445). Both the ANOVA and Kruskal-Wallis one-way ANOVA failed to statistically determine a meaningful difference between level of risk (rate of consumption) between drinking game categories.

Table 4.14

Kruskal-Wallis One-Way ANOVA For Rate of
Consumption By Drinking Game Category

GAME CATEGORY	M E A N R A T E		
	FREQ.	OZ./MIN	S.D.
1 (Motor skill)	151	1.03	.606
3 (IQ/Verbal skill)	61	1.05	.665
6 (Chance)	315	1.19	.680

Chi-Square (df = 2) = 3.869, Significance = .1445

*Corrected for ties

Hypothesis 3: People who participate in drinking games falling into a higher level of risk will score higher on Zuckerman's Sensation Seeking Scale.

Since the data did not quantitatively support the ordinal ranking of the drinking game categories as a function of risk, there cannot be a correlation between sensation seeking and categories as a function of risk. What can be reported is the correlation between sensation seeking and three other

variables: Game players versus non-game players, the number of games reported by a subject, and the average rate of consumption across all games reported by a subject.

In the sample, 193 (68.0%) of the respondents reported playing at least one drinking game within the past year (Table 4.15). Further, 55.3% report playing at least two games, 38.4% report playing at least 3 games, 31.0% report playing at least 4 games, 21.1% report playing at least 5 games, and 18.0% report playing at least 6 different drinking games.

Table 4.16 shows the mean scores and ANOVA summary of experience seeking by drinking game players versus non-game players. Experience seeking scores range from 0 to 10 with 10 being the highest score.

Table 4.17 shows the mean scores and ANOVA summary of disinhibition by drinking game player versus non-game player. Disinhibition scores range from 0 to 10 with 10 being the highest score.

The results reveal a statistically significant difference on both the sensation seeking subscale of disinhibition, but an extremely small difference on the experience seeking subscale. Drinking game players score significantly higher on disinhibition than do non-game players ($p < .0001$). On the measure of experience seeking, there is significant difference at the .05 level, but the Eta Squared is significantly smaller on the experience seeking measure (.0148) than the Eta Squared on the disinhibition measure (.2633). Eta Squared is the proportion of the variance in the dependent variable explained by group membership. Therefore, there

Table 4.15

Frequency and Percentage of Subjects By Reported Number
of Drinking Games Played in the Last Year

NUMBER OF			
GAMES REPORTED	FREQUENCY	PERCENT	CUM.%
0	91	32.0	100.0
1	36	12.7	68.0
2	48	16.9	55.3
3	21	7.4	38.4
4	28	9.9	31.0
5	9	3.2	21.1
6	51	18.0	18.0
Total	284	100.0	

Table 4.16

Scores on Experience Seeking by
Drinking Game Players Versus Non-Game Players

VARIABLE	N	MEAN	S.D.
Game Players	188	3.96	2.092
Non-Game Players	91	3.40	2.221

Source of Variation	Sum of Squares	df	Mean Square	F Value	Sig. of F
Between Groups	18.96	1	18.96	4.16	.0423
Within Groups	1262.69	277	4.55		

Table 4.17

Scores on Disinhibition by
Drinking Game Players Versus Non-Game Players

VARIABLE	N	MEAN	S.D.
Game Players	186	4.43	2.320
Non-Game Players	87	1.71	1.649

Source of Variation	Sum of Squares	df	Mean Square	F Value	Sig. of F
Between Groups	439.45	1	439.45	96.85	.0000
Within Groups	1229.54	271	4.53		

is an absolute difference, albeit a small one, between game players and non-game players on the measure of experience seeking.

A post-hoc factorial (2-way) ANOVA analysis was performed to further examine the relationship between game players versus non-game players on the measure of disinhibition (Table 4-18). This 2-way ANOVA was performed to look at players corrected for gender. The 2-way ANOVA gave further evidence to support the relationship between drinking game participation and disinhibition (students scoring higher on disinhibition measures are more likely to be drinking game players).

A Pearson correlation was used to examine the relationship between the number of games a subject reported and their sensation seeking score. Disinhibition was determined to positively correlate with the number of drinking games a subject reported playing ($r=.15$, $p = .030$). Experience seeking was not found to be significantly correlated with the reported number of drinking games ($r= -.02$, $p = .728$). (see Table 4.19) A Pearson correlation was computed to examine the relationship between disinhibition and average rate of consumption across all reported drinking games. There was not a significant correlation ($r=.07$, $p = .30$).

Table 4.18

Factorial ANOVA Summary Table for Disinhibition by
Gender and Game Players

Source of Variation	Sum of Squares	df	Mean Square	F Value	Sig. of F
Gender	124.324	2	124.324	30.458	.000
Player	411.460	1	411.460	100.803	.000
Explained	557.853	3	185.951	45.556	.000
Gender X Player	2.103	1	2.103	.515	.474
Error	1081.679	265	4.082		
Total*	1639.532	268	6.118		

*Total doesn't add up due to unbalanced design.

Table 4.19

Pearson Correlation of Number of Reported Games
with Experience Seeking and Disinhibition

SUBSCALE	n	r	p
Experience Seeking	188	-.02	.728
Disinhibition	186	.15	.030

CHAPTER V

DISCUSSION AND IMPLICATIONS

The consumption of alcohol has the potential to adversely affect health. Although there are many studies that have examined various issues and variables directly and indirectly related to college student alcohol use, there is still a lot we don't know. When it comes to high-risk drinking behavior, drinking game participation should be considered a drinking behavior that can increase the level of risk. Unfortunately, there have been few studies that have examined the role of drinking game behavior in the context of risk.

This study was conducted to look at drinking behavior in the context of risk (defined by the rate of alcohol consumption in ounces per minute), and to also provide validity to the placement of drinking games into categories based upon how the game is played. Accurate categorization of drinking games will improve the accuracy of description, communication and understanding of drinking games and can also provide a framework within which to examine drinking games and related behavior in more detail.

This study also examined the relationship between the psychobiological trait of sensation seeking and drinking game behavior. There have been a number of studies that have positively correlated sensation seeking (disinhibition and experience seeking specifically) with heavy alcohol use as well as drug and poly-drug use. Some drinking

games are believed to be associated with increased risks for adverse health consequences. Students who score higher on sensation seeking measures may be more likely to engage in drinking behavior which is determined to be risky. It is plausible that most drinking games involve some degree of increased risk (over other drinking behavior).

Summary of Sample Characteristics

The sample seemed to be a good representation of the University of Nebraska-Lincoln undergraduate student population in terms of the distribution of students across age, gender, year in school, and place of residence. There were a few non-traditional students (older) and a few graduate students in the sample. The mean age was 20.8 (S.D. = 2.91).

There were 284 students in the sample and 193 of them (68.0%) reported participating in at least one drinking game within the last year, leaving 91 (32.0%) who did not report playing in a drinking game within the last year. More women (69.8%) reported playing in at least one drinking game than men (66.3%), but the difference was not statistically significant. There was a statistically significant difference between game players versus non-game players by residence. The study showed that students residing in Greek houses were more likely to participate in drinking games (81.3% of students), while students living with parents were least likely to participate in drinking games (61.8% of students). On the variable of age, drinking game players tended to be younger than non-game players (mean = 20.49 versus 21.55).

Summary of Hypothesis I

There was fairly good agreement between raters on the 24 different drinking games that were categorized. There was perfect agreement on 13 out of the 24 games (54.1%), and for 7 other games, the proportion of agreement was at a level of .54 or higher.

An important consideration to note is that there are some drinking games that could very well be placed into more than one category. For this Delphi-questionnaire, raters were asked to select a single category that best represented a particular game. For example, a large number of games could be placed into the unity category, one could argue, since most games contribute to unity in some fashion. Even games like quarters, which is best described as a motor-skill game, could be considered a game of chance. This would largely be determined by the skill of the player, as to the degree of skill versus the degree of chance.

With any classification system, there are always inconsistencies, and the classification of drinking games is no different. The data collected for this study do suggest that the classification system (categories) presented are at least inclusive and provide a framework within which further study can be accomplished. A consideration for the future study of drinking game categories would be to more clearly and explicitly define each of the categories. By doing this, a higher level of agreement would likely result.

Summary of Hypothesis II

Quantitatively, there was no statistically significant difference in level of risk (rate of consumption) between the drinking game categories. The categories of consumption games, unity games and team games were not even included in the analysis of risk due to the extremely low number of reported cases (for team games, there were none reported at all). This by itself greatly reduced the chance of ordinal ranking the categories by level of risk. There may be two primary reasons for not finding a statistically significant difference between categories.

The first is that there is too much variability within the categories. While the categories are useful in other ways, the games within them vary in the rate of alcohol consumption. This large variance in rate within the category makes it difficult to ordinal rank the categories collectively and produce a consistent difference among them by rate of consumption.

The second reason for a lack of quantitative significance is in type II error. Specifically, there is probably a difference in how a drinking game is defined. For instance, "chugging" beer, or having a race to see who can drink the most beer in a given period of time might not be viewed as a drinking game to some students. Some students might describe this type of drinking behavior as a drinking technique or drinking contest, and not a game. Category 2 (consumption) games in this study would include this kind of phenomena that might not have been accurately measured.

While the study failed to find statistically significant difference, an argument can be made that there is a difference qualitatively. By definition

of the categories, there would appear to be a difference in rate of consumption between consumption games and motor skill games. There are probably differences in risk (rate of consumption) between drinking game categories that are not meaningful because of the variability of the rates within each category (variability of rate between games). Finally, the way the games are actually played is important qualitatively. With a game like quarters, a person, while not having total control over his or her alcohol consumption, has more control than someone playing some type of chance game, where amount of consumption is totally out of control of the player (the roll of a die, or play of a card, for example).

Summary of Hypothesis III

There was no correlation attempted between sensation seeking and drinking categories as a function of risk due to the absence of statistical significance between level of risk by drinking game category. The role of sensation seeking and drinking game behavior was examined by correlating sensation seeking (experience seeking and disinhibition subscales) with game players versus non-game players.

There was a small absolute difference on experience seeking between game players versus non-game players but there was a distinct difference on level of disinhibition between game players and non-game players ($p = .0000$). This ANOVA was followed up with a factorial (2-way) ANOVA that corrected for gender. This ANOVA also found a significant difference which reinforces the correlation between disinhibition and

drinking game participation. Disinhibition tends to describe a more traditional sensation seeking through alcohol consumption, sexual conduct and partying. Disinhibition is more closely related to biological traits and less affected by social, racial, and cross-cultural differences than experience seeking. Zuckerman has termed this subscale (Disinhibition) the closest approach to the diagnostic construct of "sociopathy" in the Sensation Seeking Scale (Zuckerman, 1979).

Among the drinking game players in the study, there was also a statistically significant positive correlation ($r = .15$) between the number of drinking games reported with Disinhibition (the higher the Disinhibition, the more drinking games were reported). The relationship between Disinhibition and rate of consumption was also examined, but no statistically significant correlation was determined.

Conclusion

This study illustrates that the number of people engaging in what many consider a risky behavior (participation in drinking games), is a majority behavior. Sixty-eight percent of the students in this study reported playing at least one drinking game during the last year, and 55% report playing in at least two different drinking games within the last year.

This study also shows that when it comes to drinking behavior, especially drinking games, females are more closely paralleling the behaviors of males. Females, on average reported playing slightly more drinking games than males. Males still reported consuming more alcohol

and participating in drinking games for a slightly longer period of time, but females are close behind. When considering the biological and physiological differences between males and females (in general, males metabolize alcohol more efficiently than females), women are probably at an equal or greater risk for experiencing the acute effects of alcohol than are males. Therefore, it is quite possible that the effects of drinking game behavior are more pronounced among females (an increased risk).

There is also utility from the data collected in the study to determine what games tend to result in a higher rate of alcohol consumption. Future studies should be completed to determine specifically what rates of consumption are associated with what games. It is possible that the drinking game categories are too general and need to be further defined. One way of doing this would be to break down each of the existing categories into high risk or low risk games (for example: Motor-skill games high risk, motor-skill games low risk). It is also important to note that the majority (85%) of the drinking games reported fell into three categories (motor skill, I.Q./verbal skill and chance).

This information might have program planning potential. Currently, the emphasis is on promoting alcohol-free activities. For those who rebuff these activities, then it would be desirable to promote alcohol-related activities that involve the least risk. If drinking games are played for reasons other than to get drunk (socializing, for fun, etc.), then games that involve less risk (lower rates of consumption) would be viable alternatives that could be promoted. New games that are low in risk (rate of consumption) could even be designed.

The relationship between sensation seeking and drinking game behavior found in this study logically parallels previous studies that correlate heavy drinking with increased sensation seeking scores (specifically Disinhibition and Experience Seeking). This study suggests that students who score higher on Disinhibition and Experience Seeking are more likely to participate in drinking games. Further, among drinking game players, those who score higher on Disinhibition, are more likely to participate in a greater number of drinking games. The relationship between sensation seeking and drinking game behavior needs to be further studied. With further study, it might be possible to strengthen the relationship between sensation seeking and drinking game behavior. An example for the potential use of such information would be to aid in the assessment of risk concerning alcohol use among college students. College students who report playing in drinking games might be more likely to abuse alcohol or experience alcohol-related problems.

College drinking behavior needs to continue to be studied, and ultimately the knowledge gained be used to design and facilitate programming that will enable healthier (less risky) drinking behavior. The area of drinking games demands more attention since it is a means of alcohol consumption on the college campus. Study results on drinking games have the potential for providing program planners with yet another avenue to pursue ways of decreasing the risk of alcohol use on the college campus.

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APPENDIX A

DELPHI QUESTIONNAIRE

DRINKING GAME CLASSIFICATION QUESTIONNAIRE

Thank you for participating in this interesting and important study that is looking at drinking game classification and drinking game behavior. You are one of eight members selected to be on this expert panel. You were selected based on your background and your ability to critically and objectively analyze information. Your participation is critical to this study, and your expertise is greatly appreciated. Please complete this questionnaire and return to me no later than April 15, 1994.

If you have questions or would like to discuss the study in more depth, please contact me at 472-7870 or 421-2407.

Thank You,

Mike Howe

One purpose of this study is to validate the description of drinking game categories by way of objective discrimination and logical reasoning. On the next page are the proposed six categories of drinking games. For each category, I have provided a definition. On the following pages in the questionnaire there 24 different drinking games listed with a description of how each one is played. It is your task to assign one of the six categories to each particular game. If you feel like the game could belong in more than one category, put the game in the category that you feel *best* describes that game.

Listed below are the six drinking game categories. Each category includes a description of the characteristics of drinking games that would be placed in that respective category.

Motor Skill games. A game which involves the movement of one or more body parts (usually the hands or feet) in a manner as to accomplish a task that will result in a player having to take a drink. The motor skill behavior can be developed or improved with training (i.e. practice) for some people, but not necessarily all people. Motor skill games can require a degree of "athleticism", but it may also be a task of hand-eye coordination.

Consumption games. A game in which the focus or object is to see how much beer can be consumed in a given time or during a given event.

I.Q./Verbal Skill games. A game in which a participant must use a cognitive thought process to play. This process might require the recall of visual and/or verbal cues as well as being able to verbally or non-verbally communicate information to other game players.

Unity games. A game where the sole purpose is to foster an environment of "togetherness" and friendship. A unity game will be non-competative and will generally be played by a small group of people who most likely know each other.

Team games. A game that involves at least two teams pitted against one another. The primary goal of team games (other than to drink beer) is to create an environment of competition and to promote comradre among the members of each team involved. These games are sometimes variations of consumption games but involve the concept of a team.

Chance games. A chance game is just that; chance. The players have little or no control over what determines who will drink. Elements could be described in terms of luck or odds. Games of chance can be played with devices such as cards or dice, or without devices.

On this page and the following pages, there are 24 different beer drinking games listed and described. After each game description, there is a space to write in the name of the one category that you think *best* describes that game.

Quarters: Players usually sit around a table. A glass of beer is set in the middle of the table. Another cup or glass (sometimes with beer in it, sometimes without beer) and a quarter are passed, in-turn, around the table. The object is to bounce the quarter off of the table and into the glass. If a player is successful in bouncing the quarter into the cup on his/her first try, then they can make any other player drink the cup of beer. If the player misses on their first attempt, they have the option of taking another turn. If they make it, they choose a person to drink. If they miss, then they must drink the cup of beer.

Category: _____

Up and Down the River: A game in which each player receives four playing cards face-up. Instructions are given by the dealer as to how many cards should be given or taken. Play continues based upon matched cards (pairs). If a player has a pair and the command "take" is given, then that player must drink, the amount of beer being a function of the face value of the card (i.e. 8). If the command is "give", then the player can force another player to drink. The commands "take" and "give" are also a function of how the playing cards are dealt.

Category: _____

Bullshit: This game is designed to "keep people on their toes" by requiring the players to remember every other players' game name, and to respond in a rhythmic fashion when appropriate. If you miss-speak, then you are required to take a drink. As the name of the game implies, each player chooses a game name that is related to some form of animal feces (examples would be "frogshit", "camelshit", "horseshit", etc..).

Category: _____

Hi-Lo: This game is played with a deck of cards divided evenly between players. Each player turns over one card at a time. Those with lower cards are required to drink. For example; if four people are playing, the lowest card would drink four times, the next lowest three, the second lowest twice, and the highest card would not have to drink. A tie is settled by suit. (Spades, Hearts, Diamonds, and Clubs).

Category: _____

Thumper: This is basically a tag game with sign language. Each player chooses a sign which can be made with one or two hands (one example would be the "O.K." sign). The game begins with the players "thumping" in a rhythmic manner. After "thumping the table or one's thighs, each player claps their hands twice. The leader starts by making their sign and then the sign of another player during the claps. The person's sign that was just made must then repeat their sign and then make the sign of another player. The difficulty lies in recognizing your sign and then remembering the sign of another player.

Category: _____

Mexican: This game begins with each player placing a die, known as the "scoring die", on the table in front of them. The first player shakes two "game dice" in a cup and turns it upside down. The player then "peeks" at what his roll is and then either admits his roll or "bluffs" to the person next to them. The second player can either call the bluff or believe the previous roll and try and roll a better value. In this game, a roll of 1:2 is best, followed by 6:6, 5:5, 4:4, and so on. The loser of the roll loses a point on their "scoring die" and must take a drink. When the "scoring die" is down to one, then the person must take a large penalty drink and must then leave the game.

Category: _____

Caps: Two opponents sit face-to-face on the floor, legs in front and spread apart and touching each other (thereby forming a diamond-shape playing area). A cup of beer is placed a few inches in front of each of the players crotches, and the object is to toss the cap into the other players' cup. There are three prescribed throwing styles: backhand, freestyle, and the slam dunk. If the throw is successful, the loser chugs some beer, and the player who made the toss gets one point. The game is usually played to 11, 15 or 21 points (you have to win by 2).

Category: _____

Suck and Blow: This is a co-ed beer game. The game requires at least six members sitting in a circle (alternate boy-girl), and a playing card is passed from one person to the next via the mouth (one is not allowed to use your hands). The card is passed by the passer blowing the card and the receiver sucking the card. If the card is dropped, both members have to take a drink.

Category: _____

Beer-an Inning (Baseball): This game involves a group of people who are gathered to watch a baseball game. The object of the game is to consume one beer per inning. If the inning goes fast (i.e. a double play), then one might end up drinking the beer for that inning rather quickly. There might also be lulls in the game which would make an inning longer in duration.

Category: _____

Slam: This game must be played by two teams with at least three members each. A member of team 1 has a quarter hidden in his hand. On the count of three, all the members of team 1 slam their palms on the table and leave them there. Team 2 then must try and guess which hands (use their aural acuity) do not contain the quarter. Each member of Team 2 must drink half a beer for each hand that is left unturned after the quarter is revealed.

Category: _____

Tending the Teat: The players gather around the keg, and the first player places the tap in their mouth. One person continually pumps the keg, and another person serves as referee. The object is for each player to take as many swallows as they can before they spit-up, vomit, or pass-out. The person who takes the most swallows (as counted by the referee) wins.

Category: _____

Beer Hunter: Two players are led into a room blindfolded and are placed at a table facing each other. Six cans of beer are placed on the table, and one of them is shaken up. The two players then remove their blindfolds and one player starts by selecting a beer, placing it under their nose and opening it. The players alternate until one of them commits "nasal suicide" by opening the shaken can. That player must then consume all of the open beers on the table. The winner remains, and the next player is cycled in.

Category: _____

Beer Pong: This is ping-pong played with beer. A player places a full cup of beer on the centerline of the ping-pong table, towards the back of the table. Regular ping-pong rules are in effect, except during rallies, each player tries to hit the other players' cup with the ball. Players whose cups are struck must consume a certain amount of beer depending upon how and where the cup was hit (example: ball hits side of cup after bounce or fly, take one sip; ball knocks over cup, refill cup and chug).

Category: _____

Tang: This game was invented by Yale students in the 1940's. The game consists of two teams of 10 members. The teams line up on opposite sides of the table. Each member has two beers. When the game is started (it is usually timed with a stopwatch). The first player chugs his beer, as soon as he slams the empty glass to the table, the number two player does the same. This continues down the line until it reaches the 10th, or corner man. This player must drink both of his beers, and then the 9th player drinks his second beer, and it continues up the line until the first player chugs his beer. The team that finishes the quickest is the winner.

Category:_____

Hi-Bob: This game is usually played by having a small group of people assemble at some one's place of residence. This game is played while watching *The Bob Newhart Show*. The only rules are that everyone must drink a half a glass of beer whenever a character in the show says "Bob" and a full glass of beer when a character says "Hi, Bob."

Category:_____

Smurf: This game is played similar to "Hi, Bob". The only change is that instead of watching *The Bob Newhart Show*, the small group of people watch the children's' cartoon *The Smurfs*. Whenever any character says a word with the word "smurf" in it, everyone must chug beer.

Category:_____

100 Beer Club: Players in this game have from midnight Thursday until midnight Sunday to consume 100 12-ounce beers (this works out to one beer every 43 minutes). If you are successful in consuming 100 beers during this time-frame, you are a member of the club.

Category:_____

Blow Pong: This game requires two teams of players. Each team claims a short and long side of a table or ping-pong table (with the net removed), and kneels down around it. The ball is dropped onto the table and team members try to blow the ball off on the opposing teams' side. The team who was scored on must drink a specified amount of beer.

Category:_____

Turtles: This is a cumulative verbal game where the object is for the players to repeat word for word what the first person says. If this cannot be done, then everyone in the game must drink a specified amount of beer, and the person who made the mistake must try again.

Category:_____

Bite- the-Bag: In this game, each player has a paper grocery bag. The object is to pick up the bag in your mouth without the use of your hands. Before each round, each player must take swallows of beer (the number of swallows equivalent to the number of the round). After each round, a referee tears a piece of the sack off. This is done until there is nothing left but a small scrap of paper left at the end of the game. If you fail to pick up your bag, you are eliminated from the game.

Category:_____

U-Chug: Play is begun by a player indicating another player and telling them to chug a beer. After chugging, that person then has the authority to tell another player to chug. If a player feels that someone is being unfairly picked on, then they can say "Jesus saves" thereby relieving that person from drinking, but they themselves must then drink.

Category:_____

Boot-a Bout: This game must be played in a bar, and begins when one person buys a pitcher of beer. The pitcher is passed around the group of players with each one drinking as much as they want before passing it on to the next player. The continues like this until the pitcher is gone. The person who drank just before the person who finished the pitcher must buy the next pitcher. Many players will go to extreme lengths (some might even drink the whole pitcher immediately) to avoid buying the next pitcher.

Category:_____

Dizzy Izzy: This game is a relay race between two or more teams, ideally played on a football field. A player must chug a beer and then dash to a baseball bat which is placed about 40 yards away, and place his forehead on the bat and run around it (with hands on the bat) 10 times and then dash back to tag the next member of the team.

Category:_____

Bizz-Buzz: This is a counting game. It starts with one player staring to count by one, and the other players count in turn. When a 7 or a multiple of 7 (such as 14 or 21) comes up, the player must say "Bizz." When a double number comes up (such as 33, 44, 55), a player must say "Buzz." When a player makes a mistake (either forgets to say "Bizz" or "Buzz", or says it at the wrong time), they must take a drink of beer.

category:_____

APPENDIX B

DRINKING GAME QUESTIONNAIRE

A NOTE ABOUT THE STUDY

The purpose of this questionnaire is to get a better understanding of beer drinking games and drinking game behavior. Your participation in this study is voluntary. Anonymity is assured by not asking for your name on this questionnaire. In no way can this questionnaire be associated with a name. Your participation in this study is greatly appreciated.

DIRECTIONS:

Part one of this questionnaire contains questions concerning your participation in beer drinking games during the past year. If you have participated in at least 6 different kinds of drinking games, then fill out the items for each of the 6 games. If you have participated in more than 6 different kinds of drinking games, then fill out items for the 6 drinking games you have participated in the most. If you have participated in less than 6 different kinds of games, then fill out the items for each of the games you have participated in. There are 4 questions for each reported drinking game. Please start with the drinking game you participated in most recently. After completing part one, complete part two of this questionnaire. If you have not participated in a drinking game, then skip part one and complete part two of this questionnaire.

PART I

Drinking Game: _____
(If you don't know the name, give a
brief description below)

Drinking Game: _____
(If you don't know the name, give a
brief description below)

1. How much beer do you usually consume
while playing this game?
(1 beer = 12 ounces)

_____ Beers

1. How much beer do you usually consume
while playing this game?
(1 beer = 12 ounces)

_____ Beers

2. How long do you usually spend
participating in this game?
(60 minutes = 1 hour)

_____ minutes

2. How long do you usually spend
participating in this game?
(60 minutes = 1 hour)

_____ minutes

3. The last time you played this game,
how long did you play it?
(60 minutes = 1 hour)

_____ minutes

3. The last time you played this game,
how long did you play it?
(60 minutes = 1 hour)

_____ minutes

4. How often do you play this game?

A. Once or twice a year
B. 3 to 5 times a year
C. 6 to 11 times a year
D. Once or twice a month
E. Once or twice a week
F. 3 to 4 times a week

4. How often do you play this game?

A. Once or twice a year
B. 3 to 5 times a year
C. 6 to 11 times a year
D. Once or twice a month
E. Once or twice a week
F. 3 to 4 times a week

PART I

Drinking Game: _____
(If you don't know the name, give a
brief description below)

1. How much beer do you usually consume
while playing this game?
(1 beer = 12 ounces)

_____ Beers

2. How long do you usually spend
participating in this game?
(60 minutes = 1 hour)

_____ minutes

3. The last time you played this game,
how long did you play it?
(60 minutes = 1 hour)

_____ minutes

4. How often do you play this game?

- A. Once or twice a year
- B. 3 to 5 times a year
- C. 6 to 11 times a year
- D. Once or twice a month
- E. Once or twice a week
- F. 3 to 4 times a week

Drinking Game: _____
(If you don't know the name, give a
brief description below)

1. How much beer do you usually consume
while playing this game?
(1 beer = 12 ounces)

_____ Beers

2. How long do you usually spend
participating in this game?
(60 minutes = 1 hour)

_____ minutes

3. The last time you played this game,
how long did you play it?
(60 minutes = 1 hour)

_____ minutes

4. How often do you play this game?

- A. Once or twice a year
- B. 3 to 5 times a year
- C. 6 to 11 times a year
- D. Once or twice a month
- E. Once or twice a week
- F. 3 to 4 times a week

PART I

Drinking Game: _____
(If you don't know the name, give a
brief description below)

1. How much beer do you usually consume
while playing this game?
(1 beer = 12 ounces)

_____ Beers

2. How long do you usually spend
participating in this game?
(60 minutes = 1 hour)

_____ minutes

3. The last time you played this game,
how long did you play it?
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- E. Once or twice a week
- F. 3 to 4 times a week

Drinking Game: _____
(If you don't know the name, give a
brief description below)

1. How much beer do you usually consume
while playing this game?
(1 beer = 12 ounces)

_____ Beers

2. How long do you usually spend
participating in this game?
(60 minutes = 1 hour)

_____ minutes

3. The last time you played this game,
how long did you play it?
(60 minutes = 1 hour)

_____ minutes

4. How often do you play this game?

- A. Once or twice a year
- B. 3 to 5 times a year
- C. 6 to 11 times a year
- D. Once or twice a month
- E. Once or twice a week
- F. 3 to 4 times a week

PART II

DIRECTIONS: Each of the items below contains two choices, A and B. Please indicate *on the questionnaire* (by circling A or B) which of the choices most describes *your likes or the way you feel*. In some cases you may find items in which both choices describe your likes or the way you feel. Please choose the one which better describes your likes or feelings. In some cases you may find items in which you do not like either choice. In these cases mark the choice that you dislike *least*.

It is important you respond to *all items* with only *one choice*, A or B. We are interested only in your *likes or feelings*, not in how others feel about these things or how one is supposed to feel. There are no right or wrong answers as in other kinds of tests. Be frank and give your honest appraisal of yourself.

1. A. I like "wild" uninhibited parties.
B. I prefer quiet parties with good conversation.
2. A. I dislike all body odors.
B. I like some of the earthy body smells.
3. A. I like to explore a strange city or section of town by myself, even if it means getting lost.
B. I prefer a guide when I am in a place I don't know well.
4. A. I have tried marijuana or would like to.
B. I would never smoke marijuana.
5. A. I would not like to try any drug which might produce strange and dangerous effects on me.
B. I would like to try some of the new drugs that produce hallucinations.
6. A. I dislike "swingers." (people who have multiple sexual partners)
B. I enjoy the company of real "swingers."
7. A. I find that stimulants make me uncomfortable.
B. I often like to get high (drinking liquor or smoking marijuana).
8. A. I like to try new foods that I have never tasted before.
B. I order the dishes with which I am familiar, so as to avoid disappointment and unpleasantness.
9. A. I would like to take off on a trip with no pre-planned or definite routes, or timetable.
B. When I go on a trip I like to plan my route and timetable fairly carefully.
10. A. I prefer the "down-to-earth" kinds of people as friends.
B. I would like to make friends in some of the "far-out" groups like artists or "hippies."
11. A. I would like to meet some persons who are homosexual (men or women).
B. I stay away from anyone I suspect of being "queer."
12. A. I am not interested in experience for its own sake.
B. I like to have new and exciting experiences and sensations even if they are a little frightening, unconventional or illegal.

PART II

13. A. The essence of good art is in its clarity, symmetry of form and harmony of colors.
B. I often find beauty in the "clashing" colors and irregular forms of modern painting.
14. A. I like to date members of the opposite sex who are physically exciting.
B. I like to date members of the opposite sex who share my values.
15. A. Heavy drinking usually ruins a party because some people get loud and boisterous.
B. Keeping the drinks full is the key to a good party.
16. A. A person should have considerable sexual experience before marriage.
B. It's better if two married persons begin their sexual experience with each other.
17. A. Even if I had the money I would not care to associate with flighty persons like those in the "jet set."
B. I could conceive of myself seeking pleasure around the world with the "jet set."
18. A. There is altogether too much portrayal of sex in movies.
B. I enjoy watching many of the "sexy" scenes in movies.
19. A. I feel best after taking a couple of drinks.
B. Something is wrong with people who need liquor to feel good.
20. A. People should dress according to some standards of taste, neatness, and style.
B. People should dress in individual ways even if the effects are sometimes strange.
21. Your Gender (circle letter)
- A. Male
B. Female
22. Your current year in college (circle letter)
- A. Freshman
B. Sophomore
C. Junior
D. Senior
E. Graduate
23. Where you currently live (circle letter)
- A. Off-campus (Independent)
B. Off-campus (Parents)
C. On-campus (Residence Hall)
D. On-campus (Greek House)
24. Your Age (fill in)
- _____ Years

APPENDIX C

I.R.B. INFORMATION



University of
Nebraska
Lincoln

June 2, 1994

Research Compliance Services
Institutional Review Board
103 Whittier Bldg.
2255 'W' Street
P.O. Box 830849
Lincoln, NE 68583-0849
(402) 472-6965
FAX (402) 472-9323

Mr. Michael Howe
Health and Human Performance
135 MLH 0229

Dear Mr. Howe:

IRB # 94-03-222 EX

TITLE OF PROPOSAL: Beer Drinking Games: Categories, Level of Risk and Correlation
With Sensation Seeking

This project has been approved by the Unit Review Committee from your College and sent to the IRB for a number. According to the information provided, this project is exempt under 45 CFR 46:101B.

This project should be conducted in full accordance with all applicable sections of the IRB Guidelines and you should notify the IRB immediately of any proposed changes that may affect the exempt status of your research project.

Sincerely,

A handwritten signature in cursive script that reads 'R. Gene White'.

R. Gene White, Director
for the IRB committee

xc: Dr. Priscilla Grew
Unit Review Committee

APPENDIX D

REPORTED DRINKING GAMES

AND FREQUENCIES

<u>Drinking Game</u>	<u>Frequency</u>
Quarters	138
Asshole	67
Up and Down the River	59
Bullshit	28
Circle of Death	27
Red/Black, Hi/Lo	26
Beer Dork	22
Kings	22
Fuck You	21
Drunk Driver	20
3-Man	19
Pyramid	18
Cops and Robbers	15
Categories	12
Chandeliers	12
Drug Dealer	10
Presidents	10
Vegetable Game	9
Thumper	8
Caps	8
I Never	6
In Between the Sheets	5
Anchorman	5
Mr. Smith	4
Trapped (Trap)	4
Poker	4
Wheel of Fortune	4
Century Club	4
Smoke or Fire	4

<u>Drinking Game</u>	<u>Frequency</u>
Bizz-Buzz	3
Jacks	3
Name Game	3
Viking Master	3
Spinners	2
Cardinal Puff	2
Questions	2
Spoons	2
Waterfall	2
Fuzzy Duck	2
Drink Before You Think	2
Drink 'Til You Drop	2
Tabs	2
Bermuda	1
Pig	1
Race Car	1
Suck and Blow	1
Beer Softball	1
Pitch	1
Aces High	1
Nickels and Dimes	1
UNO	1
Beer Bong	1
Ultimate (Drink a disk)	1
Jenga	1
Tongue Twister	1
What's Up Bob	1
ABC	1
Chase	1

<u>Drinking Game</u>	<u>Frequency</u>
Century	1
Pass-out	1
Pole Game	1
Suites	1
Horse Races	1
Races	1
Indian	1
Roxanne	1
Shit on Your Neighbor	1
Shot of Beer a Minute	1
Around the World Basketball	1
Hackey Sac Drinking	1
Yatzee	1
Ice Trays	1
Hoppe	1
Darts	1
Go Fish	1
Song Drink	1
T.V. Game	1
War (with cards)	1
Merry-go-Round	1