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ANXIETY AND OUTDOOR ADVENTURE: A STUDY OF STATE ANXIETY AND ACTIVITY PERFORMANCE

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This study explored the relationship between participant anxiety and performance in an outdoor adventure activity (a high ropes course). It has been widely suggested that a correlation exists between anxiety and performance of complex motor tasks during a physical activity (Martens, Vealey, & Burton, 1990). Two theoretical concepts which attempt to explain the nature of the relationship between anxiety and performance are the Yerkes-Dodson Law (1908) and the multidimensional anxiety theory (Martens et al., 1990). A common element of high ropes courses is a certain amount of challenge or risk designed to create an atmosphere for accomplishment and personal growth by the participants. Unfortunately, along with the benefits involved in a high ropes course activity, participants often experience a certain level of fear and anxiety (Ewert, 1988). If the multidimensional anxiety theory applies to the ropes course activity, the relationship between anxiety and performance will be linear rather than the inverted U described by Yerkes-Dodson. High adventure activities (e.g., ropes courses, rock climbing) are being used by a number of organizations for educational and therapeutic purposes. If the desired results of these programs are to be achieved, instructors must be able to gauge the level of anxiety of a participant prior to an activity. If instructors clearly understand participant anxieties, they may be prepared to assist anxious participants when difficulties arise on the ropes course, and lead safe, professional activities. The purpose of this study was to investigate the relationship between the state anxiety of a participant in an outdoor adventure activity and the participant's level of performance during the activity. Simply stated, does a high state of anxiety prior to participation in a high ropes course, as indicated on Spielberger's State

Anxiety Inventory, relate to a participant's level of performance during the high ropes course? In addition to determining the correlation between anxiety and level of performance, the following issues were examined: (1) Are state anxiety levels affected by the age of the participant? (2) Does the gender of the participant affect the level of state anxiety? (3) Do participants with prior high ropes course experience show a lower level of state anxiety than persons without experience? (4) Does order of participation affect the ability to perform the activity (modeling)?

This study examined subjects (N=217) participating in the Mankato State University (Mankato, Minnesota) high ropes course during 1991-1992. Participants were tested using Spielberger's State Anxiety Inventory prior to the beginning of the ropes course activity. Spielberger's test has been used in a number of areas, and its reliability and validity have been well established (Spielberger, 1983). During the ropes course activity, each participant was observed and her/his level of performance was assessed based on the number of times participants asked for assistance during the ropes course and comments made by participants during the ropes course. A numerical score was assigned to each observation, and a total score was calculated for the participant at the completion of the course. The information obtained was examined using Pearson's product moment coefficient of correlation and multiple regression.

The results of this study revealed that state anxiety score and gender were the most significant indicators of a participant's performance scores. The Pearson product moment coefficient of correlation indicated a significant correlation between participants'

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performance score and the variables of state anxiety, self-efficacy, and gender. The multiple regression analysis demonstrated that state anxiety and gender were significant predictors of performance score. The research findings of this study indicate the relationship between state anxiety and performance agree with the multidimensional anxiety theory (linear relationship). The relationship between state anxiety, performance, and gender may be due to the nature of the activity or the nature of the self-evaluation test. Prior ropes course experience did not result in lower anxiety scores or higher performance scores. The highest anxiety and performance scores were recorded for emotional support groups, youth-at-risk groups, and a summer youth program. The youth-at-risk groups also had the most participants unable (or unwilling) to complete the course. Modeling (observing someone else complete the ropes course) was a factor in improving performance levels. From the perspective of a ropes course instructor, the information

obtained during this study may indicate certain individuals or groups who need additional instruction prior to and during the ropes course activity. The observation instrument used in this research may prove valuable to other ropes courses if it is adjusted for different ropes course elements.

References

- Ewert, A. (1987). Fear and anxiety in environmental education programs. *The Journal of Experiential Education*, 18 (1), 33-39.
- Martens, R., Vealey, R. S., & Burton, D. (1990). *Competitive anxiety in sports*. Champaign, IL: Human Kinetics.
- Spielberger, C.D. (1983). *Manual for the state-trait anxiety inventory*. Palo Alto, CA: Consulting Psychologists Press.
- Yerkes, R. M., & Dodson, J. D. (1908). The relation of strength of stimulus to rapidity of habit formation. *Journal of Comparative and Neurological Psychology*, 18, 45-52.