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Let Safety be Your Guide: A Risk Management Perspective on Challenge Course Programming and Instructor Training

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LET SAFETY BE YOUR GUIDE: A RISK MANAGEMENT PERSPECTIVE ON CHALLENGE COURSE PROGRAMMING AND INSTRUCTOR TRAINING

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Background

The introduction of challenge courses to the public and private education sectors ushered in a new focus on construction and safety standards. The Association for Challenge Course Technologies (ACCT) currently provides a series of standards related to challenge course construction techniques and appropriate materials and is paving the way for national standardization of challenge course practices and instructor training programs. While challenge course safety has improved significantly in the past forty years, there are still "antagonists who have claimed these programs lack safety and quality control" (p.65), resulting in a number of potential and actual accidents (Leemon & Erickson, 2000).

The anatomy of an accident was outlined by Dan Meyer and Jed Williamson as a post-accident matrix to aid accident investigators in developing a better understanding of the interplay between objective and subjective factors and the resulting accidents. Alan Hale was one of the first people to apply The Dynamics of Accident Theory to adventure programs and specifically, challenge course incidents (Hale, 1990; Leemon & Erickson, 2000). Similar to the Meyer-Williamson three category matrix, Hale's theory was divided into two categories: human hazards and environmental hazards. The combined effect of these two areas produced what Hale identified as accident potential.

The purpose of this study is to provide an initial accurate assessment of the relationship between challenge course incidents and: 1) type of belay system; 2) type of incident; 3) participant gender; and 4) participant age. The ultimate goal is to identify manageable factors that contribute to or increase participant exposure to actual risk and synthesize them in a useful, proactive way.

Methods

Data are archival, consisting of incident forms filed between 1994 and 1997 within a mid-western university's challenge course. Incident forms are completed and filed by university challenge course instructors. The population consisted of a total of 169 reports of individuals experiencing some sort of a "close call" or "near miss" during a challenge course experience. There were a total of 67 males, 89 females and 13 unknown gendered participants ranging in age from 11 years of age to 56 years of age with mean age of 19.46.

Results

A Non-Parametric Chi-Square testing for differences ($\alpha = .05$) in frequencies along the independent variables yielded significant results for relationships between challenge course incidents and Type of Belay ($\chi^2 = 83.851$), Type of Incident ($\chi^2 = 43.985$), and Gender ($\chi^2 = 4.699$). A bivariate tabular analysis was used as follow-up to gain further insight into the significant relationships found in the initial analysis.

Discussion

The results from this study facilitate the development of proper training programs for challenge course facilitators; and cement a foundation for an adventure education program philosophy to the end of creating more successful, lasting learning experiences for challenge course participants. Two primary implication areas for challenge course programming were delineated: instructor training and staffing and programming. Results were also compiled to derive the Godsey Risk Exposure Matrix for purposes of planning on a group by group basis.

FIGURE 1

Godsey Risk Exposure Matrix

		Belay System	
		Dynamic	**Static**
Gender & Age Group	**<16 Male**	**None**	**Unclipping**
	>16 Male	**Unclipping**	**Slip, Fall, & Injury**
	<16 Female	**Unclipping Failure to Complete**	**Failure to Complete**
	>16 Female	**Fail to Complete**	**Slip, Fall, & Injury Failure to Complete**

References

Hale, A. (Ed.). (1990). *Annual review - 1989* (5th ed.). Bellefontaine: National Safety Network.

Leemon, D., & Erickson, S. (2000). How accidents happen. In D. Ajango (Ed.), *Lessons learned: A guide to accident prevention and crisis response* (pp. 5-32). Anchorage: Northern Printing.

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