

Validation of Teacher Education of Malaysia Trainer's Sports Risks Management Practices Constructs

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Abstract

Sports risk management is essential as it prepares for a safe sports programme and allows sports organization to minimize legal liability and enhance their organization's reputation. Sports risk management's intent is to prevent and minimize accidents and mishaps in sports. Developed countries such as Australia and the United Kingdom have practiced the standard model of risks management since 1999. This indicates that the sports risk management model is essential for any organization that offers or implements programmes for sports activities, and demonstrates the need for a standard model. However, there is no standard risk management practices model employed by the trainers, lecturers, or the administration of Teacher Education of Malaysia to ensure zero risk in sports, as well as increase public involvement in sports. As such, this study focuses on the dominant sports risks management construct, differences in demography to Sport Risk Management Practices (SRMP). Respondents to this study are 39 Institute Pendidikan Guru Malaysia (IPGM) lecturers and 120 IPGM athletes. The IPGM lecturers group is comprised of 32 males and 7 females. Respondents are lecturers who are teaching in the Teacher Education Institutes all over Malaysia. While the athletes group is comprised of 67 males and 53 females teacher trainees who are undergoing training from the centres throughout Malaysia. A Rasch descriptive and inferential method of analysis is used with Winsteps software. The findings of the SRMP construct include identification, implementation, operational choice and implementation. Through factor analysis, it is found that the results meet the criteria set by the Rasch Model and are unidimensional. Findings indicate that the dominant construct is the implementation constructs, and there are no differences in perception between lecturers and the athletes for the rest of the constructs. This study concludes that SRMP has been identified, and confirms that the constructs are bias free of the perception between the trainers and athletes for each SRMP construct.

Key Word: Sports risk management practices (SRMP) Construct, Main Component Analysis, Rasch Measurement Model.

Introduction

Risks management is important to create a safe environment and to protect the organization from loss (SOCG, 2003). Risk management's intent is to minimize exposure to danger (Berlonghi, 1990; Kaiser, 1986) as well as to avoid and minimize legal liability (Zimmerman, 2007; Sekendiz, 2011, Appenzeller, 2012). Developed countries have long employed the standard risk management model, Guidelines for the Safe Conduct of Sport and Physical Activity in Schools (Sobski, 1999). The United Kingdom has a several standards of risk management, among which is Safety in Sport: Guidance for UK National Governing Bodies, in since 1999 (Fuller: 1999), the Management of Safety in Physical Education and Outdoor Activities, in use since April 2005, and the Risk Management Guide for Community Sport Organizations in

use since 2010 (Laroche & Corbett2010). The wide-spread use of varying models indicate that organizations which offer or implements programmes for sports activities practices need a sports risk management model, and that there is a need to standardize sport risk management practices (SRMP). However, Teacher Education in Malaysia, has yet to come up with a standard model that can be practiced by trainers, lecturers, and administrators to create risk free sports, and to enhance public involvement in sports. This study is carried out to identify competent trainer's risk management practices and to develop a standard framework for educating trainers in sports risk management.

Literature Review

Risk management in sports is an issue of growing concern to the organization of sports, especially in school sports programs. Sports management began to receive attention in the early 1970s (Aman 2006) and became more serious in the beginning of the new millennium. Sekendiz (2011) and Laroche & Corbelt (2010) like-minded individuals who are in the profession of sports, including athletes, team managers, sports coaches, officials, organizers of the games nor sports goods manufacturer at risk. In American sports related claims risk athletics posted on the coaches and sports the highest education (Keehan 2009). Statistics show that 38% is due to the risk of accidents experienced during competitive sports, 62% is the risk of accidents associated with the practice manager and during exercise.

This brings the risk of accidents and the threat was a concern to people, damage to property or causing disruption competition management process. According to Shaw (2005), 80-96% of the injuries occurring in the workplace are caused by negligence and unsafe practices committed employees. According Hsiu-Chin and Chao-Chein (2010) factors that cause accidents due to human error is the current management and control of the sports program, the use and maintenance of facilities and sports equipment unsafe. Another factor is that such lack of knowledge (Harun 2012, Kassim 2012, and Thomas 2012) among the participants about the risks of an activity before participating, the organizers are not ready with emergency response, accident reports are not done correctly, a rented facility uninsured and regulations incomplete (Thomas 2012, Sulaiman 2010, and Slade 2010). All of this is in the sport of negligence causing the accident when there is no reason risiko. For this reason, Rejda (2011), Hsiu-Chin & Chao-Chein (2010), and Ang (2007) insisted there should be a risk management exercise to prevent and minimize accidents in sports.

The practice of risk management is an approach that focuses on the safety behavior of workers as a cause of injury-related during the execution of the task. According to Ehsani, M. and Versi, K. (2012) the practice of risk management is a new thing and need qualified coaches to achieve better performance of risk management within the organization. According to Ammon (2001) and Clement (1998) to create an exercise program that is safe, risk managers should be appointed to manage model risk management practices. Ammon (2001), Thatcher (2006), and Price (2010) asserts sports leaders and coaches need to be educated in the field of sports and have the training and experience are competent to manage risks in the risk management practices of supervision, medical services, facilities, equipment, security and crowd control, transportation and safety equipment.

The practice is often emphasized by previous workers concerning risk management is a liability and tort, equipment and sports facilities, coaches demographics, policies, risks inherent warning, communications, technology, emergency management and transportation, supervision, training and sports activities. Whether in Malaysia or abroad, no model designed specifically for the practice of sport management at the institute to serve as the theoretical framework of this study. Therefore, researchers formulate risk management practices as part of coach theoretical framework for this study.

Liability and tort

Carroll & Connaughton (2006) defines negligence as the failure to exercise supervisory standards. According Siegenthaler (1996) neglect can exist through the four elements of the legal obligations of care,

supervision duty, proximate cause, and injury. In cases involving program participants, the legal obligation of care is generally less debate. Instead, the focus is maintenance duty and proximate cause. One of the most frequent accusations of supervisory duties is a lack of adequate supervision. Thus, providing adequate supervision is a critical concern in the risk management weaknesses sports organizations. According to Kaiser (1986) supervision involves the protection of participants from unreasonable risk of harm. This includes protection of the situation dangerous activity. It covers not only current events class or activity, but also the preparation, planning and maintenance necessary to allow continued activity safely.

Equipment and sports facilities

Important risk management practices and should be emphasized in the sport organization (Mustaffa 2013 and Shamsuddin 2013) but the results of this study Veisi & Ehsani (2012) and Mulrooney & Ammon (1995) found that managers equipment and sports facilities lack focus risk management practices and some issues critical issues related to risk management. However, data from Mulrooney & Ammon (1995) showed that 71% of surveyed stadium does not use risk managers and more than 51% of the facilities have never used a safety committee. From stadiums that do not use 47% of risk managers have been involved in some kind of legal action, while 59% of the stadium using risk managers were involved in some type of litigation areas. Based on the findings above, therefore there should be a model of risk management practices that can improve aspects of sports management and sports facilities equipment.

Demographic coach

Incompetent risk management practices also arise based on demographic coach (Ang 2007). Thomas (2012), Boedighiemer (2010) and McLarty (2008) pressing the certification requirements and professional qualifications relevant manager (for example, security license instructor, cardiopulmonary resuscitation-CPR) helps accountability practices in risk management. If the individual does not have the credentials to teach or lead a particular activity, they should not be given responsibility for the Fuller (1999). This creates a dilemma for administrators to find qualified workers. Professional qualification is also the skills and competencies that are required and must be verified when needed. If an individual is hired without the proper credentials, hence the urgent need to set up regular training for qualified individuals to assume a given. Ongoing training is important (Ehsani & Veisi 2012 and Boedigheimer, 2010), especially in the activities of high-risk sports such as gymnastics.

Basis

McLarty (2008) and Page (2002) states should establish a policy and procedure system. The system identifies the reasons for documenting policies and procedures, including reference work you clear a clear understanding of responsibilities; understanding clear boundaries; foundation for future changes: the act of identifying improper facilities; boundaries of freedom for an individual to make a good decision, and preparation prior to the event (Zimmerman 2007, Page 2002). Policies and procedures should be clearly stated and based on current practices (Aiken, 2002 and Sullivan & Decker, 2005). Policies and procedures is an important and critical component of the risk management model. Policies and procedures should identify the activities, define management and maintenance of facilities, supervision and administration of the program outline and define the communication with the parties involved (Van der Smissen 1990). With this should be a policy and procedures manual written form that is used as a risk management tool.

Athletic trainers must be knowledgeable in risk management policies and risk management standards to avoid lawsuits and tort liability as frontline risk managers, sports coaches are responsible for establishing standards of care for all athletes including training facilities and sports training each than they are in perfect condition and safe. Athletic trainers also have oversight responsibilities for the assistant sports coach, graduate assistant in sports and athletic training students.

warning of the risks inherent

Examination of the field of play before and after all events and sports programs should be standard practice for any obstruction (SOCG 2003, NSW, 1999). Athletes have to have the right equipment for every type of sport, and if special equipment must be worn, it should be appropriate and correct. The following points need to be addressed (Gallagher 2012, Sang of 2011, Solomon 2010, Zimmerman 2007, Teng 2004, Haimes 2004 SOCG 2003, Peterson and Hronek, 2003) to avoid the risk exists that ensures the equipment enough for all the equipment needed and available to all practices and events; athletes should be able to use the equipment needed to warm up and participation events; each equipment should always be in good condition all equipment should be checked before the start of the event or contest. Equipment that routinely or occasionally use should be maintained and inspected prior to each use; always use the tools with proper technique for manufacturers to develop equipment for specific uses. Staff and coaches should instruct their players always use the equipment properly. Use tools do not follow the proper techniques are not only safe but may void the warranty on tools; equipment size and installation of the equipment must comply with the standard specifications set by the sport.

Communication

According to Gallagher (2012) and NIMS (2008), strategy and planning in information and communication is vital to all aspects of public information. Communication model should include processes, protocols, and procedures (Sulaiman 2010 and Wood 2000), which requires the development of draft news releases, media lists, and contact information officers elected / appointed, community leaders, private sector organizations, and public service organizations to facilitate the dissemination of accurate, consistent, accessible, and timely delivery of public information (Hong 2012 and Wood 2000). Communication should be an important component of risk management practices.

Technology

According Julhi and Harun (2007) field of sports management is no exception using technology to deliver a skill, technique and tactical risk management to the players. One of the ICT world is often being used by a coach or teacher in providing input to the players is the use of multimedia technology in sport. Multimedia technologies other than facilitating it also is a substitute or a supporter of teaching, learning and training sessions conducted by teachers or trainers in delivering the information to the students (Heinich, Molenda and Dmaldino 2005). Equipment and sports facilities have also changed in line with the technology. Coach or manager must master and skilled in the use of tech tools to avoid the risk of injury.

Emergency management

Many factors contribute to emergency management in injury prevention or reduction of the risk of injury in any activity or sport program (Hsiao 2005, Aaron 2004, Mun 2004). Every coach should have an emergency management plan standards to assess risks efficiently (Lachapelle 2004 and Aaron 2004) by ensuring safe movement of athletes, athlete welfare secured, explore the possible risks, to evaluate critical condition, and the action to be carried out by the institute based on the assessment of the situation / risk situation. Therefore, every sports organization should have at least one physician, athletic trainer, or physical therapist knowledgeable in first aid and immediate management of athletic injuries and games that cover risk management practices.

Travelling and transport

Staff and coaches are responsible for all their athletes when traveling to play and competition. As an aide to bring students in sports activities that include accommodation, parents must be notified with detailed information (Zimmerman 2007, Lachapelle 2004, Aaron 2004, and Fuller 1999). In addition to transport

athletes covered accident or injury (Singh and Surujlal 2010). This is important in risk management to ensure the safety of students and parents avoid blame the officer who escorted the students.

Supervision

Supervision must for all ages require close monitoring because individuals develop skills and knowledge through sports activities, students are susceptible individual gets hurt because they do not realize the potential danger to yourself or others and may fail to recognize their own limits (Tie 2004 and Tie 2002). If players have become more skilled and knowledgeable, the need for special supervision will be reduced. In addition, leaders need to develop a plan or instructor supervision standards for controlling and avoiding risky situations and risk conditions expected. In each case, the supervisor has the responsibility to protect participants from their own behavior and that of others (Thomas 2012, and Olsen & Kowalski 2010). Adequate supervision requires oversight and control enough to see the whole area.

Training

Aaron (2004) and (Seidtlar 2012) concurred training to improve practice, commitment, productivity, stability and flexibility in managing the organization. This statement can be proven training and staff development institutions. Through training, individuals who are trained to acquire and upgrade information, knowledge and skills up to date and relevant (Seidtlar 2012). Training is provided to ensure that staff are competent risk management practices, all tasks can be implemented effectively (STA 2009, Ang 2007 and Aaron 2004) and competent staff is also able to strengthen its risk management objectives of the organization to ensure a safe environment exercise program. By the way the coach can complete to be better prepared to face and deal with fill-in sports program risk management issues that are often an issue in the local press.

Activities and sport programs.

In all our activities and sports programs, the risk of an accident is something to be expected and can occur especially in the environment of activities and sports programs. According to Fuller (1999) in the implementation of activities or sports programs, coaches need to ensure that the facilities, equipment and activities in a safe condition. Coaches also need to identify the facilities and equipment to be used in activities / sports programs that can pose a risk to players, officials, spectators or the public.

Based upon the practice of risk management is very important and necessary to prevent, protect and to provide guidelines to avoid risk (Rejda 2011, Hsiu-Chin and Chao-Chein 2010, and SOCG 2003). Ministry of Education (MOE) in general and the Malaysian Institute of Teacher Education (IPGMs) no particular model sports risk management standards that can be adopted to enhance the safety of activities and sports programs in IPGMs (Ang 2007, Amrin 2007 and Zuber, 2003). The reason is very important to establish a model APRs as a guideline to prevent accidents and improve safety IPGMs sports program.

Research Questions

This study is carried out to:

- i. explore sports trainers' risk management practices construct from the perception of the IPGM athletes.
- ii. endorse sports trainers' risk management practices construct through the Principle Component Analysis (PCA)
- iii. identify the most dominant construct from amongst the SRMP constructs
- iv. identify the differences in perception between trainers and athletes for each sports risk management practices construct.

Conceptual Framework

Conceptual framework of the research can explain and predict a phenomenon systematically (Wiersma, 2000) in addition to specifically indicate the operation of a research brief and concise. Conceptual framework will also show the direction and guidance to the research while doing research (Hatta, 2001). Researchers have developed a conceptual framework of the study will serve as a reference as shown in Diagram 1.

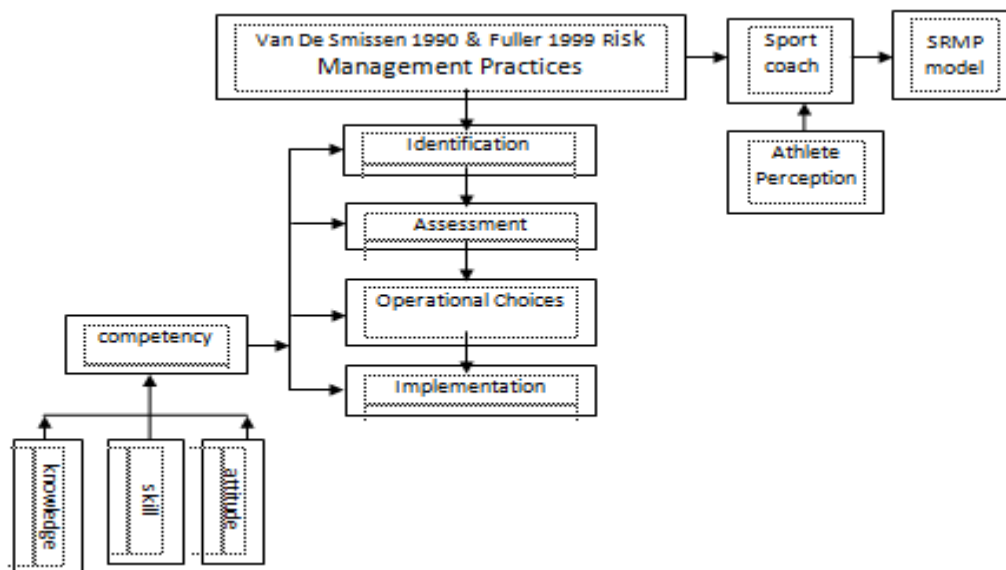


Diagram 1: Conceptual framework

Methodology of Study

The respondents involved in this study comprise of 39 IPGM lecturers and 120 IPGM athletes. The lecturers are currently serving the IPGM throughout Malaysia: 32 males and 7 females. The athletes are full-time teacher trainees throughout Malaysia: 67 males and 53 females.

In determining the constructs, the Class Test Theory (CTT) approach is employed using qualitative means to gather data. Each construct is identified and developed through two approaches: (i) document analysis by studying literature reviewed through the integration model and theories related to SRMP constructs; and (ii) interviews of officials and lecturers who are experts in SRMP.

In designing the framework validate the construct that the trainers SRMP produce, the researcher uses the Item Response Theory (IRT) Rasch model by applying PCA to the residual based on the quantitative data resulting from the questionnaire. The steps taken in PCA are raw variant percentage explained by measurement; percentage of unexplained variant in 1st contrast; and Eigen value variant not explained in the 1st contrast. From the value and findings from the PCA analysis, SRMP is determined and the SRMP framework is developed.

To analyse the most dominant construct, the researcher studied the mean measure for each construct. The negative mean measure value indicate the most dominant, that is the construct that is most agreed upon, while a positive mean measure indicate less dominant factor, one less agreed upon by respondents.

As such, the researcher arranged the mean measure value for each factor from the most negative to the most positive. The researcher also employs Wiersma (2000) that is if the mean score value is more than 3, the item is in the high level. To get the mean score value the researcher compiled the total score and divided that with the number of respondents.

To determine the difference in perception between the trainers and the athletes, the researcher used the criteria set; by looking at the value of t, t must be bigger than 2 and the value of p has to be less than 0.05. If the values do not fulfil the criteria, it can be said that there is no difference in perception between the trainers and the athletes for each SRMP construct studied.

Analysis

Developing SPRM Constructs

Findings of Document Analysis

Findings as indicated in Table 1(a) are based on document analysis, which has been discussed by previous researcher. Among the related studies referred to is Risk Management Cycle (Hronek & Spengler, 2002), which touched on recreational risk and spare time; Risk Management Strategi model, (Carpenter, 1995), which touched on athletic, recreation and Physical Education risks; Risk Management Cycle (Fuller, 1999), which can be used as a model for athletic sports risks and risk management; and Sports Leadership and Risk Management Model, (Van der Smissen, 1990), which is a model for programme management.

Table 1(a) Comparison risk management practices based on research

No	SRM Practices	Hronek & Spengler 2002	Fuller 1999	Farmer 1998	Carpenter 1995	Van Der Smissen 1990
1.	Identification	/	/	/	/	/
2.	Assessment	/	/	/	/	/
3.	Operational Choices	/	/	/	/	/
4.	Implementation	/	/	/		/

Findings of the Interview

The researcher has summarized as indicated in Table 1(b) below to show the differences in opinion towards practices that a trainer need to possess in implementing risk management in every sports programme. The most mentioned practices by experts are identification, assessment, operational choices and implementation.

Table 1(b) Findings Interview Analysis Role Dimension Construct

No	Practice Construct	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5
1.	Identification	/	/	/	/	/
2.	Assessment	/	/	/	/	/
3.	Operational Choices	/	/		/	/
4.	Implementation	/	/	/	/	

This construct for SRMP was gathered from document analysis of earlier researchers and was verified by experts in risk management.

Verification of Construct.

Table 2 Principle Component Analysis for Sports Trainers Risk Management Practices

	Identification Practices	Assessment Practices	Operational Choice Practices	Implementation Practices
% Raw Variants	44.1%	44.1%	44.2%	44.2%
Unexplained Variants in the 1 st Contrast	9.9%	7.8%	8.1%	6.1%
EigenValue Contrast	2.8	2.9	2.8	2.9

Based on the findings of principal components, analysis for each construct is shown in Table 2 above. The principal components analysis for the identification of practices construct find that the percent of variance explained by the raw empirical measurement is 44.1%; the Eigen values of the first contrast was 2.8; and the percentage of unexplained variance in the first contrast is about 9.9%. For the construct of the assessment practices, the percentage of variance explained by the raw empirical measurement is 44.1%, the Eigen values of the first contrast was 2.9 and the percentage of variance is not explained in the first contrast was 7.8%. In the operational choice practices construct, the percent of variance explained by the raw empirical measurement is 44.2%, the Eigen values of the first contrast was 2.8 and the percentage of variance is not explained in the first contrast was 8.1%. In the implementation practices construct, the percent of variance explained by the raw empirical measurement is 44.2%, the Eigen values of the first contrast was 2.8 and the percentage of variance is not explained in the first contrast is about 9.3%. Based on the views, findings for each construct showed clearly that the entire construct is unidimensional in nature and meets the criteria set by the Rasch measurement model. Based on the criteria set out by Linacre (2010), the constructs are unidimensional when the percentage of variance explained by the Rasch model of measurement is more than 40%, the percentage of unexplained variance in first contrast is less than 10%, and the Eigen values of the first contrast are is less than 3. Diagram 2 also shows constructs for shaping the framework of risk management practices in sports and proves that each item is independent of character set, fit to the model, and that the resulting constructs are unidimensional.

Identification of the Most Dominant Factor

Table 3 Respondents' Agreement towards overall dominant Sports Risk Management Practices Analysis

Construct	Mean Score	Mean Measurement	Mean factor Sequence
Implementation	-0.09	4.27	↑
Operational Choice	-0.06	4.25	
Identification	-0.04	4.24	
Assessment	0.19	4.16	

Once the constructs tested are verified through the PCA, the researcher identified the most dominant of the four constructs which influence the IPGM sports trainers risk management practices.

Descriptive analysis by studying the mean measure was carried out on all four constructs; identification, assessment, operational choice and implementation. Findings as indicated above in Table 3 demonstrate athletes' level of agreement towards the dominant SRMP of implementation, operational choice, identification and assessment.

Identification of differences in perception between the trainers and athletes

The researcher carried out an analysis to determine whether there is a difference of perception based on gender among the trainers and athletes in SRMP. The criteria set to determine significance is for the t value to be more than 2 ($t > 2$) and p value less than 0.05 ($p < 0.05$). Based on the analysis, for the identification practices ($t = 0.77$; $p = 0.4410$), assessment practices ($t = 0.74$; $p = 0.4602$), operational choice practices

($t=2.07$; $p=0.039$) and implementation practices ($t=0.84$; $p=0.407$), analysis found no significant differences. Table 6.4 below demonstrate the trainer and athlete differences for each SRMP construct.

Table 4 : Significant Differences in Perception Based on Trainer and Athletes towards Lecturers SRMP Based on Practices

No.	Practice	DGF size		t	p	Findings
		Trainer	Athlete			
1.	Identification	0.04	0.00	0.77	0.4410	No significant differences
2.	Assessment	0.04	0.00	0.74	0.4602	No significant differences
3.	Operational Choices	0.12	0.04	-1.59	0.112	No significant differences
4.	Implementation	0.05	0.00	0.84	0.4017	No significant differences

Discussion

This study determines lecturer's SRMP constructs from the perception of athletes and the trainers in developing trainer's SRMP construct. This study also verifies whether the constructs developed are the main constructs in SRMP for IPGM, and in doing so determines the most dominant construct, and identifies whether there is a difference between trainers and athletes for each of the SRMP constructs.

Developing Sports Risk Management Practices Construct.

Exploration into the IPG trainer's SRMP was carried out in two ways: through analysis of literature and also through oral interviews of experts in the field. From literature studied, including articles in journals, seminar working papers and printed books, four SRMP constructs were mentioned by earlier researchers. Hronek & Spengler' (2002) touched on recreational risks and spare time, stating that SRMP is identification of risks, assessment of risks, remediation of risks, and implementation of risks management. While Carpenter's(1995) risk management strategy model touched on athletic risks, recreation, and physical education by further explaining that SRMP is identification, risk assessment and risk management by opting either to eliminate, minimize, or relocate the risk. Fuller's (1999) Risk Management Cycle focused on athletic sports risks and on sports leadership stating that SRMP is to identify the facilities, equipment, and activity, to identify the danger that is related to the facilities, equipment and activities, to predict and assess the risks and to implement preventive measures. Van de Smissen (1990) risk management model centres upon the programme manager's role in SRMP as being analyse the risks and to determine steps for control, to state the related policy recommended by policy, to state operational practices identified and to format a model, and to implement the risk management model.

Qualitative findings of the study through interviews with experts in the field of SRMP, agreed with the SRMP constructs. They are of the opinion that SRMP includes identification, assessment, operational choice and implementation. This is in tandem with Rejda (2011) and Farmer & Malrooney (1998) who advocate that SRMP would enhance safety and minimize losses of sports organizations.

Constructs Validation

Findings indicate that the 4 SRMP constructs developed, which is identification, assessment, operational choice and implementation, are unidimensional that is there is no other dimension that influence them. This in turn indicates that it fulfils the Rasch factor analysis model as claimed by Linacre (2010) that to produce

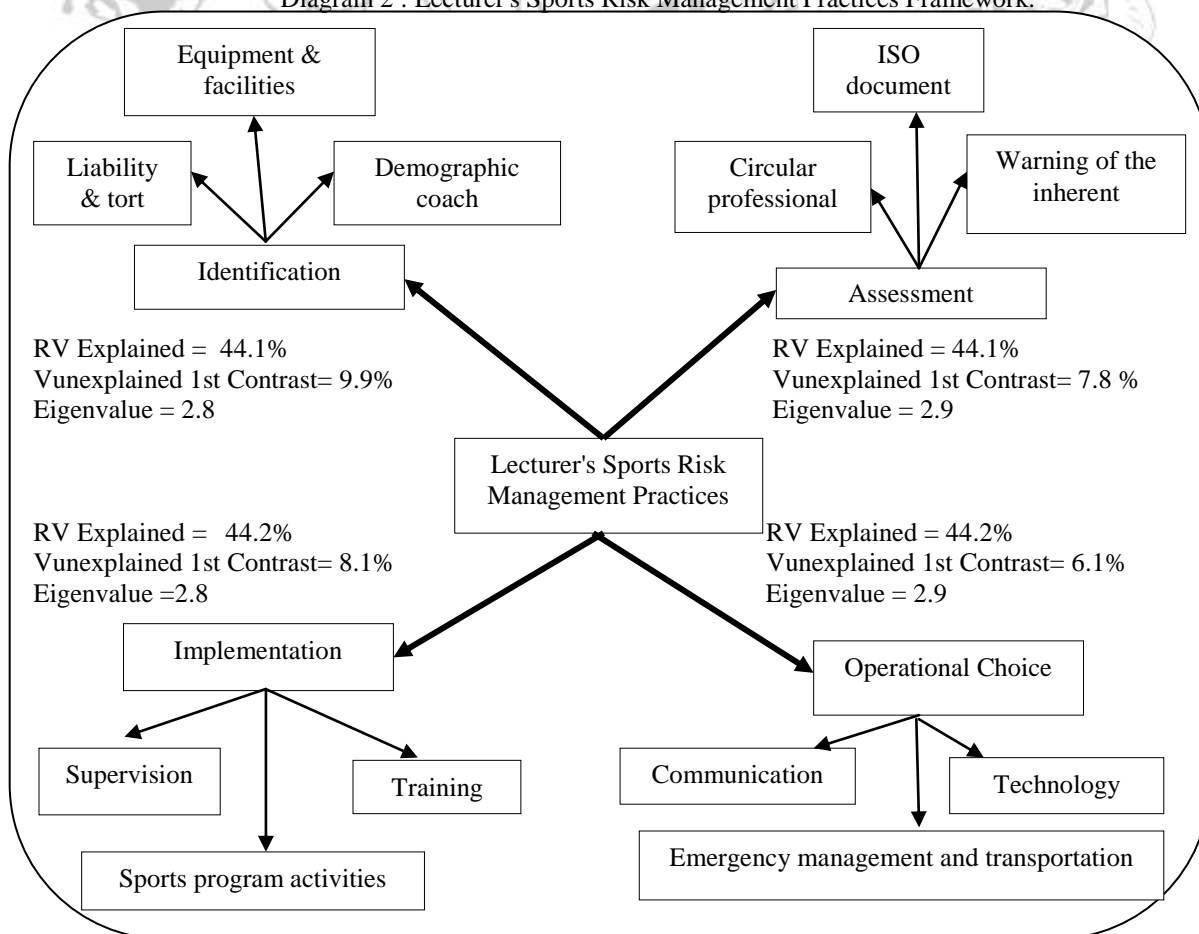
a unidimensional construct the unexplained variance in the first contrast should be less than 10%, while the first contrast Eigen value too do not exceed 3.0.

Based on the findings above indicate there is no second constructs as stated by Bond and Fox (2007) and Linacre (2010) who reiterates there is no second dimension if the set criteria is fulfilled. This is in tandem with Baghaei's (2008) when he states that the validation of the related constructs in producing suitable items to assess the prime dimension and fit the model. He adds that Rasch assessment model serves as a validation tool for the constructs. As such, the researcher concludes the SRMP framework produced through the 4 constructs which is validation, assessment, operational choice and implementation is valid and reliable as reference in application of IPG trainers SRMP. This framework is presented in Diagram 1.

Identification of Most Dominat Factor.

Based on analysis carried out, respondent agreed to all the SRMP constructs listed in the questionnaire. Respondents comprised of trainers serving as lecturers and athletes following the IPG programme unanimously agreed with the SRMP described as implementation, operational choice, identification and assessment. This finding is similar to Hronek & Spengler's (2002) and Carpenter's (1995) findings that SRMP is identification, assessment, operational choice and implementation; will create a safe sports programme environment and minimize sports risks; will lessen the probability of bad accidents and injury; and will minimize the legal liability of an organization.

Diagram 2 : Lecturer's Sports Risk Management Practices Framework.



Identification Differences in Perception between Trainer and Athlete.

Based on the analysis carried out, there are no significant differences in perception between the trainers and the athletes on SRMP. This finding however contradicts Ammon (1993), who stated that differences in SRMP area determined by culture and status. Ziemmerman (2007) reiterates that for a college sports trainers' SRMP is overwhelmingly crucial. Current studies identified trainers in the role of primary risk manager in the following aspects: creation, development, and implementation of policy and manual procedure in the college athletic training room.

Conclusion

In this study, the SRMP was identified based on documents analysed through detailed literature review, and through model integration of SRMP related theories and interview with experts. Based on the findings, the researcher concludes that the objective of this study was achieved: that SRMP is developed through (i) liability and tort; (ii) equipment and facility; (iii) trainers' demography; (iv) professional circulars; (v) ISO documents; (vii) existence of risk warning; (viii) technology; (ix) emergency management and transportation (x) maintenance; (xi) practice and (xii) sports programme activities. All the SRMP are incorporated into four constructs which are (I) identification, (ii) assessment, (iii) operational choice and, (iv) implementation.

The IPG trainers' SRMP framework developed through construct validation were also justified through PCA carried out on all identified parameters, and fulfilled criteria set by the Rasch model. The values achieved were more than 40% of the raw variance explained by empirical measurement for the Rasch model: less than 10% first contrast unexplained variance and less than 3.0 to the first contrast Eigen value. This proved that the constructs developed are unidimensional and that there were no other factors identified in the trainers' SRMP. The researcher was able to identify the most dominant practice amongst all the constructs through studying the mean measure. A mean measure with a negative value indicates the most dominant construct, or the construct most agreed upon by respondents, while the mean measure with a positive value indicates a less dominant construct or less agreed upon by the respondents. Therefore, the researcher has assessed the mean measure for each construct from the negative value to the positive value. The researcher determined that all constructs developed are at the highest level based on Wierma (2000), who states that if the mean score value is more than 3 than the item is at its highest level.

The researcher acknowledges that there are no differences in perception between the trainers and the athletes for all the trainers' SRMP developed. This is due to the fact that all the values failed to meet the criteria set, which are that the t value must be larger than 2, and the p value be less than 0.05.

On the whole, trainers' SRMP construct were developed in an attempt to identify the construct or the cause that influences trainers' SRMP among the students. The constructs developed were successfully tested and verified as being unidimensional and are able to employ proper assessment, and that the constructs contain non bias between trainers and athletes. Even though trainers' SRMP have been verified through Rasch model factor analysis, further Principle Component Analysis validated the unidimensional construct, concluding that the item is a primary item which proves that there is no other dimension in the construct. However, additional studies can be done by carrying out factor analysis through Confirmatory Factor Analysis (CFA) to test the correlation between factors to validate the model if the sample size is appropriate.

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