

Risky Business: A new approach to teaching risk assessments in sports

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The past ten years have seen extensive changes in Higher Education (Biggs, 2003)

- Widening participation and access to HE
- Increase in non-traditional routes to university (Sutherland *et al.*, 2002)
- Increase in the diversity of the student population in terms of ability, motivation and cultural background (Biggs, 2003; Barrington, 2004).

Challenging the notion of the ‘traditional learner’

- Sports coaching is complex
- Coaching awards/certification are a common and traditional feature of Sport
- Currently coach education courses do not develop all the necessary intellectual and practical competencies required to be a successful sports coach

Learning Styles

- Physical education students vary from the norm on learning style variables, preferring hand on or performance situations (Johnston, 1997).
- Szucs et al (2001) stated that leisure science students prefer the 'doing' learning style followed by the 'seeing style'.
- Male and female athletes also show preference for a kinaesthetic learning style (Miller et al 2008).



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Risk Assessments

- Risk assessments are used to reduce the number and severity of accidents by assessing the risks beforehand and introducing appropriate prevention measures.
- Conducting a risk assessment to ensure that facilities and equipment are safe and fit for purpose is a major responsibility of a sports coach (Martens, 2004).
- The risk assessment process consists of the following steps:
 - identifying hazards;
 - assessing the risks from those hazards;
 - considering whether further action is needed to eliminate or reduce the risks.

1 Estimating the Residual Risk:

15. Choose a category that best describes the degree of harm which could result from the hazard, then choose a category indicating what the likelihood is that a person(s) could be harmed.

Check only **ONE** box within the table which matches both of your choices.

Degree of harm likelihood	Slightly Harmful (e.g. minor injuries such as minor cuts/bruises not always requiring first aid)	Harmful (e.g. serious but short-term injuries such as broken bones or curable disease)	Extremely Harmful (e.g. would cause fatality, major long-term injuries or incurable disease)
HIGHLY UNLIKELY	TRIVIAL RISK	TOLERABLE RISK	Moderate Risk
UNLIKELY	TOLERABLE RISK	Moderate Risk	Substantial Risk
LIKELY	Moderate Risk	Substantial Risk	Intolerable Risk

- To develop a Risk Assessment that engages students in an activity which allow them to reflect, evaluate, analyse and synthesise within a sports coaching context;
- To provide a learning experience which compliments the variety of learning styles present;
- Thus creating an innovative and dynamic delivery method which places the student at the centre of the learning experience.



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The Model

- 3D model of a sports hall was developed in Autodesk's 3D Studio Max.
- Textured using real-world photographic material with attention to detail to ensure a realistic and immersive visual result.
- Creation in 3D of a generic sports hall with associated surrounding items such as various doorways and fire escapes, basketball hoops, ceiling lights and others.
- Sports hall 3D model is built up of 47,610 polygons.
- 10 different risk assessment scenarios created.





Initial Testing of the model

- 10 participants (male $n = 5$, female $n = 5$, mean age = 31.7);
- A range of sports coaching experience;
- Participants randomly assigned a scenario;
- Verbal and written feedback on functionality, practicality and suitability obtained.

Feedback - Suitability

“a really good way to bring the outside coaching environment into the classroom but keeping it relevant to the actual coaching environment”

“it’s a great way of teaching them [the students] risk assessments without letting them lose on real people”

“a risk assessment game...a good way to make the subject less dry”

“this will save me so much time”

“it’s a bit slow to move around”

“what’s that?”

“it would be better if it was at eye-level”





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Future Direction

- To be conducted with 1st year undergraduate sports students;
- Used as a teaching and learning tool;
- Learning styles measure to be used to assess suitability;
- Focus groups once risk assessment has been carried out.