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
• 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).
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.

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

• 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.
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.
“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”
Feedback – Functionality and practicality

“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”
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.