Creating a Framework of fun and Learning: Using Balloons to Build Consensus

Rebecca Ferguson[1], Mark Childs[2], Alexandra Okada[1], Kieron Sheehy[1], Mimi Tatlow-Golden[1], Anna Childs[3]
[1] Rumpus Group, The Open University, Milton Keynes, UK
[2] Durham Centre for Academic Development, Durham University, Durham, UK
[3] School of Education, University of Nottingham, Nottingham, UK
Rebecca.Ferguson@open.ac.uk

Abstract: The relationships between fun and learning are far from clear. Some argue that the two are mutually exclusive, while playful practitioners draw attention to links with motivation, exploration and creativity. This is an important issue in the context of games-based learning – should fun be emphasised, or should it be set aside in favour of other elements? In order to explore the relationships between learning and fun, it is first necessary to understand the meanings of 'fun', a term that previous studies have shown is interpreted in several distinct ways. In this paper, we explore a new approach to researching fun and learning, the Consensus Workshop. This method was used to address two research questions: 'What elements of fun do a group of educational practitioners identify within a Consensus Workshop?' and 'How do participants see these elements translating to a learning scenario?' It was also used to explore whether a Consensus Workshop can be used to collaboratively create a taxonomy of fun, and to identify any practical and conceptual barriers to this being done effectively. Participants in a Consensus Workshop used balloons to help them construct two typologies of fun and its relationship to learning. We evaluate this approach and its outcomes, identify elements of a future typology, examine how understandings of fun are shaped by context, and consider the ways in which participants linked fun and learning. The study highlights the importance of context to understandings of fun, and also finds indications that studies in this area are limited by a tendency to focus on socially acceptable views of fun and its relationship to learning. It finds that a Consensus Workshop has the potential to be used to create a taxonomy of fun. In this initial trial of the method, educational practitioners identified multiple elements of fun and made a range of connections between fun and learning.

Introduction

'Fun' is neither a simple nor a single construct; our understanding of what it means is influenced by position and role. Poris (2006) investigated perceptions of fun with an online study of children aged two to 12. The participants were asked to rate 76 activities and experiences in terms of how much fun they were, with mothers providing responses on behalf of the younger children. From these data, Poris identified ten types of fun: friend orientated, empowering, creative, silly, sports-orientated, competitive, family-orientated, surprising/adventurous, relaxing, and rebellious. She found that what was considered to constitute fun varied according to demographic characteristics. For example, 'Kids scoring highest on relaxing fun were quite ethnically diverse, with a strong over-representation among African-Americans and Hispanics. Relaxing fun also skewed higher for only children, kids in single-parent households, and kids in lower-income households' (Poris, 2006: , p21).

In the UK, McManus and Furnham (2010) investigated fun with an attitude questionnaire administered to 1,100 adults who either were or had been students. Participants were also asked to use a checklist of 42 adjectives to describe a fun situation. This study distinguished five types of fun: sociability, contentment, achievement, sensual, and ecstatic. 'Sociability' was linked with situations involving friends, with joking, laughing, talking and entertainment. 'Contentment' was associated with activities such as swimming in the sea or listening to music, and with adjectives including peaceful, caring, warm, and loving. 'Achievement' linked with challenge, creation, racing, and winning; 'sensual' with sex and romance; and 'ecstatic' with crazy, energetic, and exciting situations. The study also identified significant differences between participants' attitudes to fun. These were associated with gender and with personality type. For example, 'Younger, agreeable, extraverted females associated fun most with merry-making sociability, while older, open males more with flow-type achievement activities' (McManus and Furnham, 2010: p167).

Together, these two studies point to five broad understandings of fun: sociability (friend orientated, family orientated), contentment (relaxing), achievement (creative, competitive, sports orientated, empowering), sensual, and ecstatic (surprising, adventurous, rebellious, silly). They also demonstrate that an individual's view of fun is related to demographic factors and personality type. How, if at all, can such a divergent set of experiences be related to learning?

Some insights into this relationship emerge from a study of the literature (Bisson and Luckner, 1996), which identified four pedagogical benefits of fun: intrinsic motivation, suspension of social reality, stress reduction, and relaxed alertness. Intrinsic motivation prompts learners to engage in activities of which they may have little or no experience and promotes the desire to continue or repeat this engagement. Suspension of social reality removes social barriers, opening learners to new experiences and allowing them to explore different ways of experiencing the world. Stress reduction removes barriers to learning; the fears and perceived threats that can block progress. Relaxed alertness, a state that combines low threat with high challenge, enables learners to 'feel safe to take risks, be creative, make mistakes, and most importantly, keep trying' (Bisson and Luckner, 1996: , p11).

In a more recent review of the literature, Whitton and Langan (2018) added other elements to this list. In particular, fun and the positive emotions associated with it can increase emotional and physical resilience, enhance problem-solving abilities and optimistic thinking, and create a bonding experience. Whitton and Langan went on to investigate undergraduates' perceptions of fun in higher education. They identified five elements of a fun learning experience: stimulating pedagogy, engagement from the lecturer, safe learning space, shared experience, and a low-stress environment. These findings resonate with those of a two-decade study by Zinn (2008). She identified six themes associated with a fun learning experience: choice, relevance, engagement, active learning, teacher attitude, and camaraderie.

However, the relationship between fun and learning is not always considered positive. Learners value experiences they describe as fun, and these experiences can spark interest, but fun can also impede or replace learning opportunities (Archer et al., 2016). In the context of serious games, Iten and Petko (2016) found that although students were more interested in subject matter they perceived to be fun, there was no direct link between perceptions of fun and learning gains, perhaps because fun elements can distract students and increase cognitive load. Similarly, distraction was identified as a negative aspect of fun in Lucardie's (2014) study of adult learning. Contextually framing this relationship are adult learners' beliefs about the status or appropriateness of their fun in own learning. For example, Tews and Noe (2017) noted that employees may regard fun as a juvenile, artificial, or contrived element of workplace training.

The relationship between fun and difficulty is complex (Carroll and Thomas, 1988). Some assume that easy things are fun, but that learning is necessarily difficult. Dismore and Bailey (2011) recognised the pleasure associated with fun in physical education, but worried that an emphasis on fun could prevent children from developing the skills necessary for lifelong participation. Pittinsky and Diamante (2015) argued against an emphasis on fun in early STEM (science, technology, engineering and maths) learning in case students were misled into thinking these subjects would always be easy.

This view of fun is in opposition to the understanding of fun as linked to achievement and challenge (McManus and Furnham, 2010). Papert (2002) coined the term 'hard fun' to describe challenges that are fun because they are hard, not in spite of being hard. This relates to Gee's 'regime of confidence' experienced when learning in video games: 'the learner gets ample opportunity to operate within, but at the outer edge of, his or her resources, so that at those points things are felt as challenging but not "undoable"' (Gee, 2003: p71). Lazzaro (2004) associates hard fun with exercising mastery through goal pursuit and attainment – overcoming obstacles is the reason for playing rather than a difficulty to be avoided.

What emerges from reviewing the field is that many different frameworks have been developed, but these are not clearly aligned. Several seek to identify different aspects of fun, including what fun is and how understanding of it varies, what students find fun in learning, and what the pedagogic benefits and disbenefits of fun are in different contexts. In this paper, we explore whether a Consensus Workshop could be used to create a single taxonomy of the elements of fun and, in doing so, elicit from experienced practitioners a series of ideas about the relationships between fun and learning. Our research was guided by two questions:

1. What elements of fun do a group of educational practitioners identify within a Consensus Workshop?

2. How do these participants see these elements translating to a learning scenario?

More broadly, we wanted to explore a new approach to researching fun and learning. We therefore used this study as an opportunity to reflect on our methodology, structuring our reflection around two subsidiary research questions:

1. Can a Consensus Workshop be used to collaboratively create a taxonomy of fun?

2. What practical and conceptual issues present barriers to this being conducted effectively?

Methodology

Previous studies have focused either on the understandings of fun of non-experts, or on reviews of literature that have drawn on those non-expert understandings. However, as interest in the relationships between play, games, affect, and learning has increased, there are now many researchers and practitioners with extensive experience and understanding of areas closely allied with fun and learning. The aim of our study was to bring together the expert experience of delegates at the Playful Learning 2019 conference /conference.playthinklearn.net/blog/ in order to identify elements of fun and their relationships to learning. The Playful Learning conference is participative and active, with sessions involving participants in hands-on activities. The conference practises what it preaches in that delegates learn through play about playful learning. The conference website explains that, 'Playful Learning is pitched at the intersection of learning and play for adults. Playful in approach and outlook, yet underpinned by robust research and working practices, we provide a space where teachers, researchers and students can play, learn and think together.'

Where experts are gathered in one place and available to meet for a period of time, an established means of reaching agreement is through the use of a Consensus Workshop (Institute of Cultural Affairs, 1991). This method has eight stages, explained below. Although the method has been used since the 1980s to gather expert opinions, its primary use has been in the hard sciences, particularly medical science (see, for example, this highly cited example from the Journal of Hepatology, De Franchis, 2015). In order to suit the methodology to the research area, and to stimulate the generation and amalgamation of ideas, we added an element of fun, replacing the use of cards or post-it notes with balloons. The method was therefore applied as follows (the eight elements of the Consensus Workshop Method are highlighted in italics).

Conference attendees were invited to attend the 'Framework of Fun' workshop and 17 chose to take part. Participants were aged between 35 and 65, six were men and nine women. The majority were from the UK, five were from Cyprus, Switzerland, Germany, Ireland, and Denmark.

- *Focus Question* Our workshop focus was on two research questions: 'What elements of fun do a group of educational practitioners identify within a Consensus Workshop?' and 'How do these participants see these elements translating to a learning scenario?'

- *Rational Aim (what the group needs to produce by the end of the workshop)* Two Consensus Frameworks of Fun, together with an understanding of how the elements of this framework relate to learning.

- *Experiential Aim (how the group needs to be by the end of the workshop)* Conscious of having experienced fun and conscious of possessing a deeper understanding of fun.

- *Context/Set the stage* We began by stating the purpose of the workshop and the first question to be answered, as well as outlining the process and the time frame.

- *Brainstorm/Generate new ideas* Individuals were asked to think of a time when they had experienced fun, to work in pairs (and one group of three) to identify the elements of that fun, and to write on a separate balloon each concept that they identified.

- *Cluster/Form new relationships* Pairs were then brought together in groups of eight and seven. Groups were asked to compare the words on their balloons and, if a word was duplicated or thought irrelevant, to burst one of those balloons in the most fun way possible. It was also possible to add new words/balloons during this discussion.

- *Name/Discern the consensus* Participants then worked together in their two large groups to classify their balloons and to label those classifications. For example, the concepts childish, inappropriate, sneaky, subversive and silly were grouped under the classification 'naughty'. Following this classification work, the two groups moved to trees labelled 'Learning' and 'Not Learning' and were asked to attach each balloon to the appropriate tree. This was followed by a challenge phase during which each group in turn could give reasons for a balloon to be moved, while the other team could defend its original position.

- *Resolve/Confirm the resolve* All participants gathered to discuss the concepts associated with fun and their relationship to learning.

Analysis

Analysis of the data took place in two stages. The first identified the elements of fun that emerged from the two groups in the workshop and indicated ways in which these relate to or differ from each other and from the findings of the large questionnaire-based study by McManus and Furnham (2010). The second part of the analysis is reflective, drawing on the practical experience of running and participating in, a Consensus Workshop in this context. As in the case of action research (Brydon-Miller et al, 2003), the intention of this reflective approach is to work together to blend action and reflection, theory and practice, in order to achieve workable solutions – in this case a way of developing a more comprehensive taxonomy of fun. This analysis addresses the other three research questions, starting with the practical questions about use of a Consensus Workshop, and ending with the tentative relationships identified between fun and learning.

Analysis: elements of fun

Participants identified 30 elements of fun. Of these, 25 were placed in the taxonomy of one of the two groups: camaraderie; chaos; childish; cognitive; competition; daring; dogs = fun, love, joy; escape; fear; freedom; get older fewer ambitions; humorous; inappropriate; interactive; joy; laughing; letting off steam; naughty; pride in failure; relaxing; silly; sneaky; struggle; subversive; surprise. However, there were five elements of fun that participants identified but neither group managed to classify: chaos, competition, fear, freedom, and surprise.

All these words, identified at a time when the participants were demonstrating these qualities and therefore, by their own definition, having fun were significantly different from the list of 42 adjectives compiled by McManus and Furnham (2010). The only word to appear in both studies was 'laughing'. Two roots were the same on both lists: relaxing/relaxed, and surprise/surprised. The list of 42 included loving and joyful, which were mentioned by participants on a single balloon – dogs=fun, love, joy. On the other hand, the concept of fun as 'naughty', which was well represented in the current study, was not included at all in the list of 42 used in the 2010 study.

More broadly, only some of the elements of fun identified during the Consensus Workshop fit well with the five broad categories that emerged from previous literature: sociability, contentment, achievement, sensual, and ecstatic. One of those categories, sensual, was completely absent from the workshop study. However, some new areas emerged, including links with specific age groups and mention of cognitive aspects.

The two classification systems are represented side by side in Figure 1, with the original balloons pictured in Figures 2 and 3. One group clustered their elements under four classifications: exploration, sensory, and social. The other used a four-part classification: adversity, chursprise, laughter, and naughty. 'Chursprise' is a portmanteau word, containing elements of both challenge and surprise. It proved to be a useful word when talking about fun and was used several times by participants after the workshop had ended. The creation of this word, together with some of the multi-word combinations represented in Figure 1 (pride in failure, get older fewer inhibitions, dogs = fun, love, joy), suggests that fun cannot necessarily be encapsulated in single words – participants wanted to combine or qualify their descriptions.
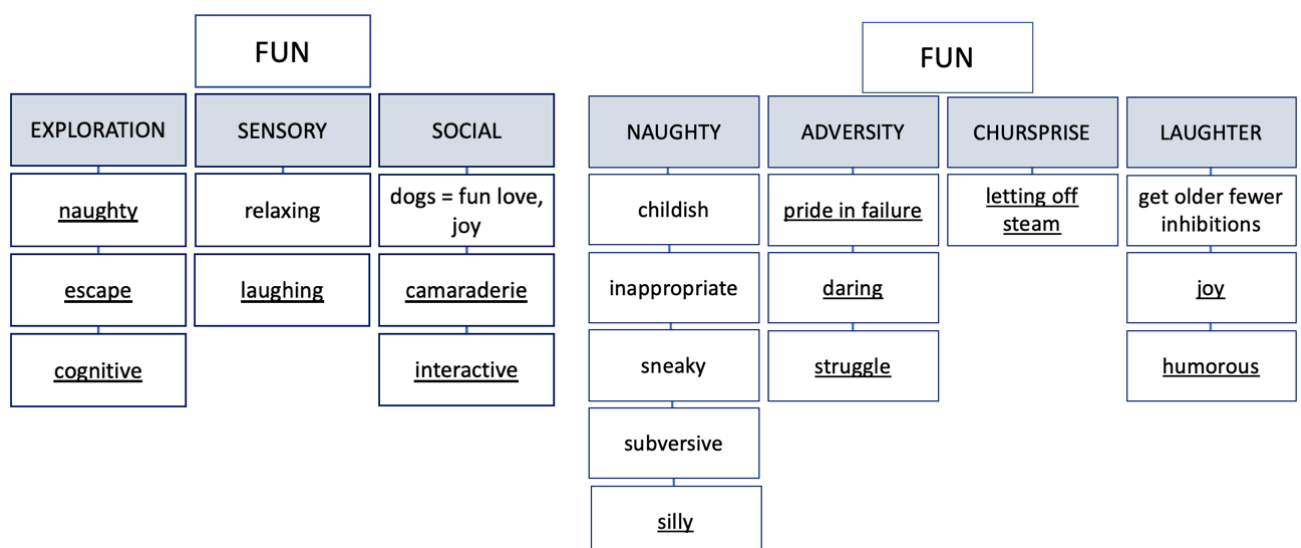

Figure 1: The two classification systems. Words in capital letters are classifications, with the concepts classified in that way arranged beneath them. Underlined words were associated with learning by participants.

Analysis: researching fun and learning

Throughout the study, we discussed issues related to our two subsidiary research questions: 'Can a Consensus Workshop be used to collaboratively create a taxonomy of fun?' and 'What practical and conceptual issues present barriers to this being conducted effectively?' We gathered and structured notes relating to these questions in a shared Google Doc.

This reflective work had three outcomes: (1) the explanation of our methodology set out above – which is intended to enable other researchers to employ this method, (2) the notes for researchers using this method that are set out in Table 1 below, and (3) an understanding of strengths of this method and conceptual barriers to its use – identified in the paragraphs below – that should be considered when it is employed.

The Playful Learning conference provided a self-selecting group of expert participants for the workshop. In addition, the physical spaces offered by the conference were suited to the cognitive work required by the workshop (Nadolny and Childs, 2014). An outside space was available, with an open area adjacent to trees. This provided opportunities to move around, as well as the option of making a lot of noise without disrupting parallel sessions (although there were occasions when participants mischievously chose to disrupt those sessions). The location of the workshop – a lawn area dotted with trees – was metaphorically aligned with the workshop structure. It enabled participants to move from the lawn, which offered a blank flat canvas for ideas, to the trees where they created a hierarchical taxonomy which, like other taxonomies, was constructed using arboreal metaphors (trees, branches, roots).

Figure 2: Elements of fun that were not associated with learning

Figure 3: Elements of fun that were associated with learning

The method and the research focus were well aligned, with clear links between the participants' activity and the elements of fun they identified. The competitive element associated with bursting balloons while clustering concepts proved to be highly engaging. However, this alignment may have resulted in taxonomies of fun that were closely related to the activity and to the conference as a whole. Figures 1–3 show a strong focus on the 'ecstatic' elements of fun (surprising, adventurous, rebellious, silly), some references to 'sociability', 'contentment' and 'achievement', and no obvious references to the more 'sensual' aspects of fun.

Participants commented that the discussion that formed the final step of the workshop was essential in providing a feeling of resolution, and in reinforcing the pedagogical rationale of the workshop. In this discussion, they were asked what distinguished the elements that had been added to the learning tree in Step 7 *Name/Discern the consensus* from those that had been added to the not-learning tree. The consensus was that concepts on the learning tree were linked by feelings of safety and security and that creating security while engaging in fun activities requires sensitivity from the educator.

One of the most disputed concepts considered by participants was 'fear' which, together with chaos, was ultimately not joined to the taxonomy created by either group. Is fear fun? Participants felt it can be as long as the fear is within limits that the individual feels are safe. Does fear have a part to play in learning? Participants disagreed but an argument from a conference organiser won the day, and fear was not added to the learning tree.

The consensus workshop ended with two taxonomies, rather than one. It would have been possible to add another stage to the Consensus Workshop in which the two were combined but, in order to assess the credibility of the findings, this was not done. If both groups had produced similar taxonomies, their agreement would have suggested that it was possible to create a taxonomy of fun using this method without amendment. However, the lack of consensus between the two taxonomies (Figure 1) suggests that their concepts and classifications will be elements of a more detailed taxonomy in the future.

Table 1: Notes for researchers using this method

Identify ways to include people who dislike balloons or popping balloons – three conference attendees volunteered that this dislike / fear was why they had not joined the session.
Allow at least an hour for the workshop, together with sufficient time to clear away all burst balloons.
Identify in advance a place to store data so that all text, pictures and videos (including those produced by

participants) can be accessed easily by everyone involved.
Agree in advance who will record what and when this will be done. Data should be collected consistently. Aim to capture the process of decision making as well as the decisions.
Balancing group numbers is hard to do at the last moment. Make notes in advance about how groups will be split at each stage.
Allow each group to agree on a group name and on a symbol or letter that can be used to distinguish its balloons. Ensure this letter/symbol is added to all balloons.
Initial brainstorms focus on a specific example of fun. These examples should be recorded, but not on balloons. Balloons are reserved for concepts.
Capture information about duplicate concepts before the balloons on which they are written are burst.
Ensure all concepts are classified and associated with a taxonomy or that the reason for their exclusion is recorded.
Encourage participants to pay attention to safety issues when bursting balloons (no running with scissors, for example).
Build in time after the activity to interview participants in order to gain a more detailed understanding of choices they made as they worked towards consensus.

Discussion

Previous studies of fun have found understandings of the concept vary according to individuals' demographic characteristics and personality type. Individual studies have also presented taxonomies of fun that are presumed to include all relevant concepts – although an examination of these taxonomies shows they are not entirely consistent with each other.

The current study suggests that, as well as being influenced by individual characteristics, understandings of fun are strongly influenced by context. The Consensus Workshop gave participants multiple opportunities to experience the 'ecstatic' elements of fun (McManus and Furnham, 2010), and these are the elements that are most strongly represented in the taxonomies they produced. On the other hand, the workshop did not provide clear opportunities to engage in sex or romance, and these 'sensual' elements of fun were not represented in the concepts that were identified (McManus and Furnham, 2010). There is a correlation between the context and the understandings of fun put forward, even if there is no clear evidence of causation.

This relationship, evident in the data analysis, can also be seen in the literature. The study by Poris (2006) named ten types of fun, none of which covered the 'sensual' category identified by McManus and Furnham (2010). Although the 3,230 participants in Poris' study were all aged 12 or under and therefore legally unable to engage in consensual sex, it seems unlikely that none of them had discovered the fun possibilities of individual sexual activity. The omission of sensual fun could therefore be due to context, with the researcher considering it inappropriate to ask about sensual fun, and children (or the parent speaking for them) considering it inappropriate to mention experience of any elements of sensual fun.

This proposition, based on relating the research findings to the literature, that the research context influences the fun that researchers find, is supported by its occurrence in other studies. For example, a different limitation of context is apparent in McManus and Furnham's (2010) research. In this case, the researchers built on research into pleasure, and included in their study questions about the relationship between fun and words such as sensual, lustful, intimate, and romantic. However, they included no questions about silly, childish, or transgressive aspects of fun. Here participants were limited by the options provided to them in the research context and were not asked to supply their own descriptors.

In Step 7 Name/Discern the Consensus of the Consensus Workshop, groups identified concepts related to fun that could be associated with learning. Once links had been made, they could be challenged in Step 8 *Resolve / Confirm the resolve*, with concepts moved from the 'learning tree' to the 'non-learning tree' or vice versa. Several were successfully moved to the learning tree – there were no moves in the other direction. In three classification groups, every one of the concepts was added to the learning tree. In several of these cases, the connection of the individual concept – naughty, pride in failure, letting off steam – to learning is not

immediately obvious but the connection between learning and the broader concept – exploration, adversity, challenge/surprise – is easier to see.

In one classification group, 'naughty', only one word was added to the learning tree. 'Naughty' was the only word to appear twice in the final taxonomies. Although duplicate concepts had been removed, 'naughty' appeared both as a concept and a classification. As a concept, an element of the wider classification of exploration, 'naughty' was regarded as related to learning. However, when 'naughty' was broken down into concepts – childish, inappropriate, sneaky, subversive, and silly – only 'silly' was considered to be related to learning. More work is clearly needed to resolve this apparent contradiction.

One possible explanation is that there are elements of fun that have a relationship with learning, but that relationship does not align with the participants' view of how learning should take place, or with the views that participants believe educational researchers will find acceptable. For example, 'making' or 'poking fun' is something that has been observed in classrooms, and it can drive learning (students work hard to avoid teachers or fellow learners making fun of them). However, this interpretation of fun is not apparent in published research on fun and learning. This suggests that both researchers and participants perceive an ethical dimension to fun. Any framework that relates fun and learning should include not only the elements that are considered acceptable but also those that are considered unacceptable. It should not gloss over or omit any of the links between fun and learning.

The examples above serve to illustrate the highly contextual nature of understandings of fun. They suggest we are only at an early stage of understanding how this broad range of experiences and emotional responses relate to each other and to learning. The importance of context identified in this study and of demographic factors identified by previous studies also suggests that, for a full understanding of the relationships between fun and learning, it will be important to look beyond the views of people based in the UK and the USA, and to take into account a wider, international range of perspectives on the relationships between learning and emotion. For example, teachers in Indonesia describe social emotional networks within which learning arises and exists. For them, happiness and learning are not separate but intertwined (Budiyanto et al., 2018).

Conclusions

This research advances the study of fun and learning in three ways. First, it highlights the importance of context to individuals' understandings of fun; these understandings have a relationship to what those individuals are asked to do and what they and researchers consider appropriate. Second, it finds indications that studies in this area are limited by a tendency of both researchers and participants to investigate, report, and emphasise only socially acceptable views of fun and its relationship to learning. Finally, it introduces a way of researching fun that makes the research experience fun, thus bringing participants into immediate contact with the subject under consideration. The study found that a Consensus Workshop has the potential to be used to collaboratively create a taxonomy of fun, although there are practical and conceptual issues that must be addressed in order for participants' expertise to be captured fully. Nevertheless, in an initial trial of the method, a group of educational practitioners identified multiple elements of fun. Although there were overlaps between the concepts, classifications and taxonomies created by the two workshop groups and those reported in the literature, the differences between these indicate that there is still considerable work to be done in creating a taxonomy of fun, and that future work must pay close attention to the role played by context in individuals' understandings of fun. The practitioners made multiple connections between fun and learning, linking learning with adversity, exploration, and creativity/surprise. However, they were unwilling to formalise more controversial connections, such as that between fear and learning.

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