‘Playing it safe’ or ‘throwing caution to the wind’: Risk-taking and emotions in a mathematics classroom

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This paper attends to teacher intellectual risk-taking when attached to expression of positive emotions, in order to explore some of the reasons why teacher risk-taking may not appear in mathematics lessons. We know that risk-taking can be beneficial, but research has not really examined what form this might take in a classroom. In recent research, I investigated how positive emotions are discussed and used by experienced mathematics teachers. In particular how to examine the ‘in-the-moment’ emotions of the teacher, and what the modelling of experienced teachers tells us about the role of affect in mathematics teaching. This paper examines some affect episodes for elements of teacher risk-taking. The evidence suggests that teacher risk-taking enables the use of emotions, and vice versa, is integral to ‘good’ teaching, and that, in Bandura’s Social Learning Theory terms, modelling such behaviours appears beneficial to student learning and should be encouraged.

Keywords
affect,
teachers,
classroom,
emotions,
intellectual risk-taking

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DOI
https://doi.org/10.31129/LUMAT.7.2.335

1 THE ‘R’ in F.R.E.S.H; Examining the emotions of experienced teachers

The aim of this paper is to present examples from the practices of experienced teachers which connect emotions and teacher risk-taking. The paper addresses the question of how emotions and risk are connected within the practices of experienced mathematics teachers. Beginning with a brief discussion of the method used in this research for exploring affect in context, this leads into a contextual definition of risk, how creating an emotionally supportive climate seems integral to encouraging risk, which leads into the examples from mathematics classrooms. The examples are intended to highlight how risk and emotions combine in practice. The subsequent discussion is structured around modelling as constructed in Bandura’s (1971) social learning theory and includes some implications for teachers who are interested in developing their practices, as there is inevitably risk in such an endeavour.

Bibby (2011) calls teaching an ‘impossible profession’ because it is fraught with contradictions, risk, tensions, and subjectivities that can rarely be reconciled. This is particularly the case for researching affect as it is never possible to isolate this dimension from the complex context of a mathematics classroom. The research from which this paper is drawn (Lake, 2018a) attempts to build a model that acknowledges

such social complexity from a socio-cultural perspective; that learning is primarily through teacher modelling (Bandura, 1971). This implies that the degree of risk taking modelled by a teacher will have an effect on the degree of risk taking by students.

One way to consider positive emotional expression is as a mechanism to support student approach behaviours (Linnenbrink & Pintrich, 2004), a definition which draws attention to the differing and unique intentions of the teacher, and recognises that emotions only have transitory existence through social interaction, exist in order to meet a desired goal, and are confined by a patterned and repetitive place (such as a classroom) which provides limiting conditions for the appropriateness of an emotion (Mottet & Beebe, 2002).

The determination of risk by a teacher is one reason why positive emotions may not always be utilised fully whilst teaching, a point rarely explored in relation to teacher affect. Yet, in context,

> "Schools have traditionally been intellectually stifling, controlling environments that are highly resistant to risk taking and change. [...] It is within these environments that teachers and administrators are asked (and often mandated) to risk changing classroom and school practices." (Ponticell, 2003, p.6).

Risk-taking is defined here as the degree of willingness to engage in an activity when the outcome is uncertain, which inevitably has an emotional dimension. Behaviours are considered risky when there is a chance of undesirable consequences. Assessing risk is an exercise of judgement, conscious or intuitive, which forms a subjective assessment based on context, willingness and predisposition, drawing from options defined by experience and an assessment of likely outcome (cost/benefit). But for teachers, they also assess for self and students simultaneously. According to Clifford (1991), these risks constitute a special class called intellectual risk-taking (IRT) which is engaging in adaptive learning behaviours (sharing tentative ideas, asking questions, attempting to do and learn new things). Although Clifford considers IRT for students, the model also applies to teachers. Engagement in IRT places the learner, or in this case the teacher, at risk of making mistakes or appearing less competent than others. The definition implies that teachers would define risk-taking in teaching as trying out, most likely spontaneously, something new or unfamiliar, potentially out of their usual comfort zone, and at least different.

There is research that suggests a teacher taking risks whilst teaching is essential to develop 'good' teaching, and further, that modelling of this form of risk-taking is essential for learning. For example, Dweck (2000) suggests that encouraging children to enjoy challenges, which frequently involves risk, could increase their persistence and learning abilities. Palmer, Johansson, and Karlsson (2016) when looking at competencies that support entrepreneurship identify six competencies; creativity, the ability to take responsibility, the ability to take initiative, tolerance for ambiguity, courage and the ability to collaborate. They suggest that adapting teaching to support developing these competencies in students requires teachers to take risks.

Psychology researchers suggest there are three affective elements essential to assessing the degree of risk. These are potential loss, the significance of the loss, and uncertainty (Yates & Stone, 1992). Although Ponticell (2003) suggests that this model is inadequate, that "Constructs of emotion and gain, which appeared to be embedded in loss and significance of loss, need further identification and study" (p. 5). Yet risk-taking in a social context, such as a classroom, is different again, as status then becomes significant, especially for a teacher within the classroom power structure. The risk potentially becomes greater as it is for both self and others. However, emotions can be used to manage risk-taking appearing in the form of vulnerability as 'a state subject to emotions' (Kelchtermans, 2005). Emotions can address perceived threats, and effect resistance or subversion if required. This emotional response may be more apparent when constant reconstruction is, in Zembylas (2005) terms, more contingent and fragile. Indeed, seeking risk-taking is itself a motivator. Bullough (2005) when discussing management of risk within the vulnerabilities of a teaching role, suggests, "Some teachers seek to make themselves invulnerable, immune to the possibility of failing, whilst others seem to enjoy risking self" (p.23). Kelchtermans (2005) adds that because vulnerability enables a pedagogical relationship, then it enables joy too, and should be embraced, not contained.

There is much literature about creating an appropriate climate for learning. For example, Sharma (2015), when writing of promoting risk-taking for students, comments that, "Indeed, to learn and grow people must take risks, but most people will not take risks in an emotionally unsafe environment" (p.290), and a climate that supports risk-taking appears to be crucial for a social-constructivist approach. However, a teacher modelling risk-taking to the students must be a powerful driver for developing students to take intellectual risks in their learning. This paper reports on the outcome of revisiting the study observation and interview data to examine what

risks the participant teachers took, and what implications can be drawn. This builds on previous work exploring how an experienced teacher models and manages error (Lake, 2017). For example, if criticism is perceived as a likely outcome of error, then students may become risk averse. This suggests that how a teacher views risk, and their degree of willingness to engage in risk-taking or risk-averse behaviours is important.

To summarise, the examination of the data included in this paper assumes that Bandura's (1971) modelling within SLT is crucial for learning. A key attraction of the theory is the attention given to the role of modelling as a social dimension, where mimicry and synchronisation guide learning. Bandura suggests that where complex sets appear (as in a mathematics classroom), new behaviours are best learnt through social cues, which is integral to modelling. The risks, if any, that the teachers take will be described, and how these relate to emotions. In order to exemplify the degree of willingness, three different yet experienced teachers will be considered in turn.

1.1 Source of the data

Eight secondary school mathematics teachers, from Norfolk (UK) participated in the wider research and were visited up to three times. Data collection consisted of three stages; career storytelling, one or more classroom observations and measurement of galvanic skin response (GSR), (used to roughly indicate internal emotions), and each lesson was followed by discussion meetings using video stimulated recall. The four-phase analysis process identified episodes in the transcripts and video records that centred on interactions with an affective interpretation, especially external affective expressions. These data were then used to produce connections and any repeating strong affective themes. The analysis used Goldin et al.'s (2011) Engagement Structures combined with Positioning Theory (Harré & van Langenhove, 1999), which resulted in a series of four discussions; self, play, modelling, and storytelling, since expressions of positive emotions frequently appeared in conjunction with all four categories. These included teacher enjoyment at recall of episodes of teaching within interviews, class laughter when teachers were being playful, and examples of teachers modelling enjoying engaging with mathematics. Additionally, characteristics of excitement were seen, such as when teachers used storytelling, either to emphasise the mathematics, or to change the rhythm of the lesson.

In what follows, I draw from these data to illustrate the varying degree of risk in the choices made by the teachers. The episodes are described before examining the place of risk-taking for the teachers in the study. The examples are from the classes of experienced secondary school teachers who are working from a solid base of tried and tested practices that are inseparable from other classroom practices that affect learning. The participants were aware that my research explores teacher emotions, and within the context of normal classroom practice. There was minimal risk identified from participation such as embarrassment or loss of trust. No actual names were used, and all the data was kept anonymous. There was no compulsion to participate, even if line managers gave consent, and the voluntary nature was made clear to participants both verbally and in writing.

The wider study (Lake, 2018a), through discussion of the roles of self, play, modelling, and, storytelling, concludes with the idea of F.R.E.S.H. The idea that the affective dimension of experienced teachers in action is centred on five key elements: Focus (where teacher intensity determines what is important in mathematics), Risk (the component that is discussed in this paper), Experimentation and modelling (which includes the roles of emotions within novelty and deviation), Shift and transition (positive emotions and change), and High intensity (stronger emotion use at critical moments).

The episodes discussed below were selected from lessons where shared laughter or banter, as exemplar of expression of positive emotion, were visible to an observer. There was no intention to assess the teachers or to judge their ability to engage their students other than as observed and the following offers a variety of examples to illustrate how and where risk may be located in teaching.

1.2 Episodes of risk-taking and emotions in mathematics classrooms

The episodes are from three teachers who at the time of the data collection taught classes from year 7 (age 11) to year 11. Helen, Freddie and Adam (pseudonyms) provide a spectrum of risk-taking across the participants; a spectrum from avoidance of risk to what might be deemed active seeking of risk. To provide some context, Helen has had a varied career path, having also taught primary and her degree is in accountancy. She has a secondary PGCE in mathematics. She has taught in various schools and has been teaching for 14 years, across the 11 to 16 age group in mathematics. She is now a classroom teacher in a well-regarded rural school. Adam

is a head of department and had been teaching eight years. He pursued a different career after qualifying, before returning to teaching and moving into his current role. Freddie teaches in a larger urban school. The data was collected during his fourth year of teaching, when he had recently taken on additional pastoral role. His degree is in mathematics and physics. He has a secondary PGCE in mathematics and teaches ages 11 to 18.

Helen presented as a cheerful and dedicated teacher. In interview, she told of choosing mathematics because she enjoyed it at school. The discussion on both occasions was dominated by discussing individual students and the place of exams within mathematics teaching. For Helen, there was no evidence in any observed lessons of engagement in risk-taking. For example, she used a game as a teaching tool to offer variety. The introduced activity was groups of students solving mathematics problems, rewarded by points, as part of the preparation for a forthcoming exam. The teacher gave instructions, positioned within the interactions as rule setter, as for some board games. This activity was a teaching tool, intended to alter pace and was not considered as risk-taking by Helen or myself-as-observer, partially as the primary purpose was product orientated; it was a game designed to directly support exam success. Helen, established in the wider study as a strategic, outcome orientated teacher, seemed to see risk in play when exam results were at stake, when playing becomes time wasting, she said in interview after the lesson,

> "…we are coming up towards a test … you kind of want to make every second really focussed and really count, and really relevant and really going to help them with that test rather than perhaps being a bit more exploratory and a bit more outside the curriculum, outside the box."

Helen's selected position was as judge and adjudicator for the game, rather than as participant. The adopted position enabled her to monitor behaviour and offered variety with little perceived risk in terms of behaviour management. This view is supported by what she says in interview, about being able, as a teacher, to play with the curriculum,

> "I like doing games. I am quite a fan of games. I do sort of an auction activity where kids bid for equipment and they have to do a task. I quite enjoy doing that…"

Moving on to the next teacher, we get a sense of how Adam sees his role and a sense of his personality from how he talked in interview,

> "But then, as I was growing up it was like, I don't actually want to be an accountant as I perceived it as being a bit boring. Well, what do they do, they just play with numbers all day… um [Indicating disbelief?]. So, I didn't really think about what I wanted to do. I wanted to be like a policeman or a fireman. Then…I didn't really think about it until I was older. Then at school I was always just good at maths and that was it. I used to help students with their homework in the mornings, on the bus, in payment, [laughs] give me like a can of coke or a chocolate bar and I'd help them with their maths homework."

One might assume from this quote that he wishes to avoid boredom, and hence suppose that he is likely to be open to risk-taking. In the selected episode, Adam engaged in a foolish scenario about a shepherd counting his sheep, as a means to attend to the natural numbers. Once he had selected a student to be a shepherd, the class inevitably began to bleat.

> "(Baa) Mark just… can you check all your sheep? (Baa) Can you do…? [Pointing to each one gesture] …count the sheep. Alright." [Teacher writes the counting numbers on the board, there was some laughter and inaudible banter at this point, humorously suggesting that the counting was difficult for Mark]

Adam could have made himself shepherd, with a different relational impact, and potentially less risk, but this raises the question as to whether the affective impact would be less. He said afterwards,

> "I don't usually have to kind of settle them, but him and M, the other student, they are both kind of on the cusp of being… dodgy characters in the school… […] I've never got anyone to actually get out of their seat and actually be a shepherd. But he just seemed to be 'Alright, I'll do that', [laughs] So that's really quite a… a better way of explaining it than before, and I'll probably use that again. I like that. "

Teachers also experience boredom. There is some evidence which suggests that risky activities can counter boredom (Mandler, 1984). This is perhaps illustrated by Freddie. Prior to the observed lesson he said,

> "I wanted to be a really, really good teacher. Um… and… … I like pushing myself, um… and I think, like I try and become a better teacher. I try and do new things in the classroom…."

In the selected episode, Freddie included himself in a face measuring activity, when he could, as is common, have monitored the student activity. Instead, he allowed students to measure his face, and to record his data to compare with a perfect face using golden ratios. He was however engaged in modelling what he wanted the

students to be doing. This is a risky action as it potentially allows non-engagement for the rest of the class as some measurements involved covering his eyes with a ruler. However, his reward for this risk may have been the reduction of distance between teacher and students, even though, as he comments afterwards, he felt like "a plum". As he says afterwards,

> "And I sort of… and looking at… I knew I was about to talk about the Golden ratio, I thought that… I always find that um… I didn't want people to feel bad if their ratios were different to the Golden ratio so I kind of wanted to use myself as an example, to say it doesn't matter. Like if they could see my measurements up on the board, then it's sort of… and the fact that I don't care […] So I thought that tied in very well together, if I have my measurements on the board then it's like I'm part of them. So, I can discuss with them rather than just… I think it just brings us more onto sort of an equal playing field, so we can sort of discuss it. Like 'I've got my results, you've got your results, how did you do? 'Oh, my ears are a bit off proportion' or something like that. […] I was also trying to keep an eye that there wasn't anyone hitting each other with rulers or anything else."

2 Considering willingness to engage in risk

This section considers what can be learnt from the risk-taking in the classrooms of these teachers and in particular both willingness and what competencies (Palmer et al., 2014) are being modelled by the teachers in each example.

From interview, we know that Helen had poor behavioural management experiences in former schools,

> "I was still a teacher ten years into my profession, but I really had some struggles, I really struggled with some of my classes because they were so difficult, we had windows smashed and I was kicked by a pupil."

It is reasonable to assume such experiences would increase her awareness that showing emotions in class has associated risk, thus perhaps forming a block to risk-taking in the classroom, and hence to expressing positive emotions. As for humour, "We learn by experience whether or not it [humour] is a tactic we can use effectively" (Ziv, 2010, p.12). In the lesson, Helen followed common procedures associated with the role of a teacher. There is security for teachers from teaching mathematics in a textbook form, as balance is not then risked by experiment; doing different. The balance in Helen's case lies between assessment requirements (upon which the students, and hence the teacher, are judged 'good' or not), and individual needs (school mathematics is not only for assessment).

There is little evidence of the competency of creativity in this example, as she related through a story from her first year of teaching,

> "I also realised that I just needed to be one step ahead of them, rather than know the whole syllabus inside out. But what I did do in preparation was I went through the whole textbook in the summer holidays, so I did every single question in the textbook, just to reassure myself that I could actually do this… and teach this."

There is security in a choice such as this, as such knowledge can reduce risk, although without tolerance for ambiguity. In the observed lesson she attended to behaviour, with little responsibility or autonomy given to the students.

For Adam, there is a high degree of risk involved in creating the spontaneous scenario. There is a degree of vulnerability involved, as engaging in such playfulness involves revealing self. In the episode, Adam required a degree of confidence so that the older students would not think it silly or childish to become sheep in their mathematics lesson. This implies that to engage fully in risky behaviour, a teacher needs a perception of some reward for the endeavour. Adam also has to carefully judge how far to go before returning to the task, so it requires careful management too, which is an important characteristic of experience.

Looking foolish in front of students is not the only risk. European culture is one where childishness can be a criticism, so teachers also risk criticism of neoteny (behaving in a childish way), as Adam does in the episode above, but in a negative sense. Yet Brown (2008) suggests that humans are adaptable in terms of problem solving just because they are among the most neotenous species on Earth; that when an activity becomes habitual, and therefore easy, the risk reduces. An implication for these experienced teachers is that they need to continually engage in reflexive re-positioning. They need to be willing to keep making the game different to maintain the risk and reward balance; an ideal 50% balance (Clifford, 1991). This suggests a motivation for Adam to create the sheep scenario, which modelled creativity for the students. Whilst his experience enabled him to balance a further risk, that whilst engaging in extended scenarios that give students autonomy, a teacher must manage behaviour carefully, as these may seem to students to be a relinquishment of expected routines; students might easily lose sight of any mathematical purposes. It takes courage to do this.

Freddie actively sought risk, as he says, he liked pushing himself to do new things. The risk he took in placing himself in the role of participating student in the activity is significant. The shift in the power relationship, “like I’m part of them”, created by this choice is notable, as, if repeated, this type of inclusion potentially creates a safe environment, a ‘riskable classroom’ (Kellermeier, 1996). It also allows development of autonomous students. Freddie also seemed to be motivated by care for the emotional needs of the students, that he did not want them to feel ‘bad’. Such choices do however change the teacher role and the usual boundaries, a risky move perhaps, but one which indicates the competency of courage (Palmer et al., 2014). He is assuredly stepping into a situation in which he is not fully comfortable in order to model collaborative learning.

2.1 The place of roles and boundaries

On occasion, a teacher might be challenged in an unacceptable way, especially if the rules are ill-defined. In the lessons where the teachers were seemingly taking risks, such as Freddie and Adam, it was notable that this was in combination with strong ground rules, and expectations that were frequently reinforced. This suggests risk-taking teachers know from experience the importance of clearly defining the boundaries within which risks, in the form of changing the rules, might be taken. For example, they might model playfulness, as Adam does, in conjunction with engendering potentially controversial situations through use of questions, or through creating surprising connections or revelations. This may require abandoning some of the expected roles of a teacher, which again is potentially risky. Yet Goffman (1997) suggests that when some expected roles have been abandoned, there may be less potential for conflict between teacher and students, with a potentially beneficial impact on student learning and engagement. A teacher can choose to be creative or to digress from expected role norms. In doing so, they need to accept any associated risk and associated vulnerability, and any associated emotions.

2.2 Risk-taking and emotions

Prior experiences may have shown the participant teachers whether risk-taking is a successful stratagem, and implies that, if shown to be successful and that if they are willing to accept the risk of failure, then they can expect enjoyment. The wider study suggests some teachers appear to continually seek freshness, fluidly re-positioning to generate and support positive learning, in order to respond to student needs and

engage them in learning. It may be that a self-aware and reflective teacher seeks different ways to gratify and entertain both the students and themselves. The expression of positive emotions evoked by anticipation of enjoyment is likely to make the risk-taking successful; students can see this modelling and expectation (one of Bandura's (1971) elements of learning via vicarious experiences) and may respond positively.

Classroom management includes assessing the balance between losing control and safety in the familiar. Judging how much risk-taking is appropriate is challenging for teachers. Teachers are open to student, parent, and institutional judgements, whilst playfulness includes potential criticism of neoteny, in a negative sense. Other judgments include assessing the likelihood of rejection by students, for whom perhaps playfulness is either not the norm, or who only see such behaviours as an opportunity to push limits. Teachers function within systems of rules for behaviours and may perceive taking risk averse choices as reducing the likelihood of external criticism because these rules are not broken. For example, the duty within the role is to meet curriculum requirements, usually in the form of examination success, as illustrated by Helen. Within these constraints are individual dispositions, whilst, within what is already often an effortful role, using positive emotion requires intensity, and hence effort. Further, it takes energy to put oneself 'out there'. For example, to attempt humour, which will not necessarily be accepted, means there is vulnerability too, as experiencing the rejection of attempts is painful to an individual. In a mathematics classroom, the existing norms may not be conducive to the use of positive emotions. If used unsuccessfully, teachers may not repeat, and may withdraw further attempts, as it seems to be perfectly possible to teach mathematics without any emotional displays, either positive or negative. Similarly, in the UK, teachers are frequently externally assessed, so the connection between joyfulness and teaching (such as Adam's neoteny), and the essential creativity to engage in the action of play, might disappear through too much criticism from self or external judgements.

A further role of positive emotions in regard to risk-taking has emerged from the criteria for storytelling (Lake, 2018b), as storytelling includes a degree of removal from real-life which reduces risk and potential anxiety (as not 'real') for both teacher and students. Similarly, Perry and Dockett (2007) suggest that in childhood, many early mathematical understandings that create meaning are formed through play. They emphasise the role of play in creating situations supportive of innovation, risk-taking, and problem solving. Separation from reality creates a safe place for risk-

taking or developing curiosity, by supporting a reduction of potential shame or embarrassment, and for predictive exploration into uncertainties.

Used well, positive emotions, which are more than humour as discussed by Ziv (2010), do not endanger a teacher's authoritative position, and hence reduce risk,

> "Part of the pleasure that is created by every humorous message stem from the awareness that "this is not for real." This awareness offers a respectable way out of expressions or actions that threaten the group. If these were taken seriously, punishment or rejection would follow, but when exactly the same message is conveyed humorously, it is more easily withdrawn. It is enough to say, "But I didn't mean it seriously," and the threat is removed." (p.13).

Further, Morreall (1983) suggests laughter is indicative of security for group members, and conflict becomes unlikely. The implication is that teachers who use positive emotions can safely engage in teaching and learning without threat to self-esteem or status in that place and time, and indeed this suggests positive emotion use is an effective means of social management applicable to a mathematics classroom. Yet each teacher needs to assess how much risk-taking to incorporate for themselves, and to come to find the pleasures, playfulness, stories, and modelling of enjoyment of mathematics (Lake, 2018a) at unique and appropriate points in their teaching career.

The role of positive emotions within pushing boundaries as part of experiment acts to cushion and even functions (as suggested by Ziv (2010) for humour) to stretch the important skill of adaptability within a mathematics classroom, stretching the boundaries of what is possible before "irreversible sanctions kick in" (p.13). A teacher can model pushing boundaries as supportive of learning mathematics, or model risk-taking on the part of students. Students can imitate teacher actions, such as their use of positive emotions, and mimic behaviours seen as successful on the part of the teacher, ideally as 'thoughtful imitation' (Sfard, 2007, p.610). There is some bias in the data, as a position of adopting risk averse choices in teaching, and hence reducing risk in the form of unpredictability (Sutton & Wheatley, 2003), is likely to be common. This view of mathematics teaching did not appear often in the study, as such teachers would be unlikely to risk being 'discovered' (in what might be perceived as a form of duplicity) through observation, and hence are less likely to engage in emotion research. This is purely supposition perhaps, but likely, and a limitation of the data.

2.3 Risks in a system not built for it? Barriers, both professional and personal

This summary highlights some reasons why not all the participant teachers used positive emotions combined with risk-taking in their teaching of mathematics. Any teacher should be careful how positive emotions are used for several reasons, as there are perceived threats and risks involved. I have explored through the above examples how participant teachers that use positive emotions allay such risks, or at least manage them.

There are counter positions to many of the positions taken by the participant teachers. For example, if current practices are considered sufficient, for a risk averse teacher, the motivation for change is limited. Within managing behaviour for learning, handing over control to students is often seen as risky behaviour, especially as this potentially leaves a teacher open to criticism. The main reasons may be based within perceptions of discomfort or lack of confidence, in expecting chaos, so that the perceived risk outweighs perceptions of benefit.

Knowledge about the effect of experienced teachers can be used to support new entrants to the profession, a high-risk point because of the changing role. The participant teachers in this study are experienced and secure in their classrooms, and their perceived risk from external factors is perhaps less than for a new teacher. In future research, I would like to explore what moved these experienced teachers out of their 'comfort zone', where and when they pushed their limits, and importantly, what made them willing to do so. This has implications for teacher retention, as characteristic of all the participant teachers was a commitment to, and satisfaction from their role (Lake, 2015). It is worth noting that "By comparing preferences of new teachers with those entering other professions, we find that individuals choosing to teach are significantly more risk averse" (Bowen et al., 2014). This is important, as, if we are seeing risky practices within ordinary lessons of experienced teachers, then this implies that teachers become more risk-taking as their confidence develops and they move towards becoming better teachers. Yet the constraints remain. As Clifford (1991) said, "there is a real possibility that we are too culturally addicted to success to sell students on the notion of moderate intellectual risk-taking and too convinced that learning is inherently aversive to create exciting, enticing, and enjoyable risk-taking conditions" (p.274).

The challenge then becomes how to support and encourage teachers through the transition from trainees to experienced, and if considered desirable, more risk-taking teachers. The literature suggests that teachers should engage in risk-taking as beneficial for student learning, these episodes show that doing this in context is complicated, diverse and demanding of emotions, which means the accounts raise yet more questions about what it means to be a 'good' engaging teacher.

Acknowledgements

Grateful thanks to my former PhD supervisor, Professor Nardi. Also, thanks to my colleagues at UCL IOE, who have listened patiently to many iterations.

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