# Professional subjectivity in Kahoot! gamification: A socio-material framing of the lecturer as inspirational performer

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**Abstract**

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# Professional subjectivity in Kahoot! gamification: A socio-material framing of the lecturer as inspirational performer

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Digital gamification is becoming more prevalent in higher education, yet a research gap regarding the socio-material imbrications arising from this pedagogical practice and its relationship to lecturer professional subjectivities was discovered. This presentation reports on data from a larger qualitative study conducted in a Middle Eastern tertiary institution where the use of Kahoot! is commonplace. Semi-structured interviews with lecturers from varied academic disciplines and observations of live sessions were conducted. The socio-material narrative analysis revealed the lecturers' subjectivities as inspirational performers, arising both from their social self-presentations and the embedded digital materiality of the Kahoot! platform. The study contributes to the expanding body of socio-material research in higher education and concludes by suggesting that future studies should attend to both the social *and* materially produced aspects of lecturer subjectivities in gamification.

Key words: gamification, subjectivity, higher education, socio-material

## Introduction

While there is increasing scholarly attention to the material world, socio-material studies have seemingly neglected the lecturer in this domain (Williamson et al., 2019), while educational research tends to overlook the socio-material aspects which fashion professional subjectivities (Brown, 2019). More specifically, a research gap regarding the influence of the socio-material practice of gamification and how it influences the enactment of lecturers' professional subjectivities1 was established.

[1] *Professional* subjectivity is adopted instead of *academic* since the educators in this context are not required to publish research (Howard 2021a).

This article draws on data from a larger qualitative study conducted in a college in the Middle East[2] where Kahoot! gamification is particularly popular amongst lecturers. More extensive findings can be found in Howard (2022). The paper begins with a brief literature review to contextualise socio-materiality, lecturer professional subjectivities and gamification. Following this, an account of the research instruments (semi-structured interviews and observations) is provided. Next, the socio-material narrative analysis is explicated, which evinced how the lecturers' subjectivities are manifested as inspirational performers, emanating both from their social self-presentations and the embedded digital materiality of the Kahoot! platform. The paper contributes to the existing body of socio-material research in higher education and concludes by recommending future avenues for socio-material research into lecturer subjectivity in the digital domain.

## Socio-materiality and subjectivity

Approaching research with a socio-material sensibility allows researchers to discern 'how materiality acts as a constitutive element of the social world and vice versa' (Leonardi, 2012, p. 34). Thus, we can attend to not only human accounts of subjectivity, but also acknowledge and foreground everyday material objects (desks, pens, chairs etc.) and intangible, digital artefacts, including computer programmes, platforms and digital games (Morizio, 2014).

Sociomateriality is broadly divided into two camps: the 'harder'[3] *sociomaterial* which views the social and the material as empirically inseparable, and the 'softer' *socio-material* perspective which views them as distinct (Winch, 2017). The hyphenated *socio-material* lens thus considers material 'things' as separate entities with agency in what they allow humans to do (affordances), whilst preserving the solely humanist attribute of *intentionality* (Hultin, 2019). Leonardi's (2013) imbrication metaphor permits an inquiry into how varied instantiations of materiality and discourse combine and interact through repeated interactions, producing significant socio-materially derived effects (e.g. Leonardi, 2011). 'Equipment, techniques, applications, and people' (Orlikowski, 2010, p. 455) may become imbricated or intwined, establishing 'digital significance' (Campbell et al., 2021, p.

[2] Specific country withheld for confidentiality reasons
[3] The use of 'harder' and 'softer' relates to the extent of agency ascribed to the non-human rather than any theoretical superiority/inferiority.

5). In this way, lecturers may utilise digital material entities in the most effectual and productive means for the completion of tasks (Howard, 2022), which is particularly relevant in the pandemic times since the physical classroom has been largely substituted by online lectures featuring engaging and interactive digital software (Campbell et al., 2021). As the imbrication process occurs, it may create 'residue' (Leonardi, 2011, p. 151), such as emergent pedagogical practices and lecturer subjectivities.

## A socio-material framing of lecturer professional subjectivities

A poststructuralist view of professional subjectivities (or identities) holds that they are 'fragmented, shifting, contradictory, and contextually contingent' (Appleby, 2016, p.763) rather than fixed or stable. Moreover, existing in plurality, professional subjectivities are manifested in a complex interplay between the individual (Howard, 2019) and occupational *socio-material* routines and activities as 'subjectivity is always immanent within the assemblages of practices, objects, places and people' (Mannion, 2007, p. 416). Subjectivities partly arise through speech acts which are underpinned by personal thoughts, dispositions, and ideals (Symon & Pritchard, 2015). Speech acts furnish social actors with subject positions which are used in their interpretations of the normative rules of their occupational context and may steer their behaviours (Howard, 2021b; Weedon, 1997). Most salient is ideational subject positioning, whereby individuals recount their subjectivity relative to the ideal self they perceive, envision or aspire to become (McInnes & Corlett, 2012).

The imbrications of the human and non-human may give rise to educational affordances (Gourlay, 2017) and crystallise the presentation of subjectivities through iterative enactments (Symon & Pritchard, 2015). This aligns with the notion that professional subjectivity is, in part, an ongoing performance of the self, rather than a fixed state (Butler, 1997). When material agency is positively exploited it may reinforce a lecturer's self-efficacy and confidence, and, as a result, shape their professional selves (Mishra et al., 2012). Thus, a socio-material perspective reflects the importance of considering not only human speech acts in accounts of lecturer professional subjectivity, but also considering the power of artefacts, both tangible and intangible, in practices such as gamification (McVee et al., 2021).

## Kahoot!

From a socio-material perspective, online Kahoot! gamification occurs resultant to the imbrications arising from Kahoot! practice whereby the human (social): lecturers and students, the (tangible) material: phones, computers and screens, and the (digital) material: the virtual space, quizzes as artefacts, colourful graphics, digital scores, music and visuality of the score board enmesh to produce pedagogical affordances (Howard, 2022).

Prior research has indicated some affordances provided by Kahoot!. These include a fun, enhanced lecture atmosphere, the convenience and ease of deploying existing quiz artefacts and the website's universal accessibility (Wang & Tahir, 2020). Kahoot! has been reported to aid lecturer motivation, facilitate on the spot evaluation of learning and in some instances, save educators time (Wang & Tahir, 2020). Moreover, the literature cites several gamification role shifts including 'presenter' (Wang, 2015, p.221), 'game show host' (Wang & Tahir, 2020, p. 11), 'planner' (Nousiainen et al., 2018, p. 86) and 'playmaker' (Kangas et al., 2017, p. 453). However, this study sought to examine how the repeated performance of such enactments in the socio-material gamification imbrication could lead to the fashioning of lecturer *subjectivities*. Thus, the research question guiding this inquiry is: How do lecturers narrate and perform their subjectivities in the socio-material imbrications of Kahoot! gamification?

## Methods

### Participants and setting

The use of the Kahoot! gamification application is encouraged at the research site through professional development courses and institutional licensing agreements. In this bring-your-own-device context, kahoots are used for a variety of tasks including formative assessment and content review (Wang & Tahir, 2020). Strategic, purposive sampling (Bryman, 2008) concentrated on recruiting participants from general education, mathematics, social studies and natural science subjects, since these departments were often using Kahoot! frequently. Data from five lecturers is included in this paper. Lancaster University and the research institution granted full ethical approval for the study. The lecturers received a comprehensive information sheet in advance and provided

written consent. In addition, learners in the online sessions received an information sheet in Arabic and agreed to participate in the observations.

**Data collection**

Remote, semi-structured interviews lasting approximately one hour were held on *Zoom* since this study took place during the pandemic and the lecturers were working online. The interview dialogues were accompanied by screen-sharing the Kahoot! website on the researcher's screen, to act as a prompting artefact and visual elicitation technique (Pauwels, 2020). The presence of the website was effective in encouraging the lecturers to recall specific experiences and richly describe their engagement with Kahoot! and permitted the researcher to welcome materiality into the interactions (Hultin, 2019). The interview protocol spanned how and why the lecturers used Kahoot!, how they viewed themselves whilst enacting live games and their beliefs regarding gamification and student engagement. It was also important to for the researcher to personally witness the lecturers enacting Kahoot! online during their lectures (Symon & Pritchard, 2015). Moreover, the combination of interview and observational data provided depth and internal validity to the study (Daniel et al., 2017). Whilst observing, field notes were recorded, which also ensured an element of data triangulation (Howard, 2021c). In the interests of trust and authenticity, the lecturers checked the transcribed data and field notes to affirm their veracity (Howard, 2021a).

**Data analysis**

Analysing the transcripts involved researcher immersion in the text and the repetitive reading of the experiences and beliefs recounted by the participants (Riessman, 2008). This aligns with the narrative researcher's orientation to the notion that 'that when we tell stories about our lives, we perform our preferred identities' (Riessman, 2003, p. 337).

The initial coding step centred on discovering 'narrative fragments' (Symon and Pritchard 2015, p.247), in which the lecturers' speech acts revealed their subject positioning. This could be definitive (for example: *I want to be a great motivator)* or tacit (for example: *It's really important to keep students engaged*). Through these narratives, the lecturers would lucidly 'relive their experiences of discursive-material engagements' in gamification practice (Cecez-Kecmanovic et al., 2014, p.4). The next coding stage examined associations between the observed digital material aspects of

gamification and the participants' subject positions, attending to how the lecturers' social/human agency was imbricated with materiality to influence their subjectivities (Stanko et al., 2020).

## Findings and discussion

The data analysis revealed how in the socio-material imbrication of Kahoot! practice, the lecturers enacted themselves as 'inspirational performers[4]' amid the live deployment of kahoot quizzes, both in terms of their inherently social, entertainment-like performance and at the nexus of specific digital materiality. The digital material elements enacted during live quizzes were particularly instrumental in their capacity to sustain learner engagement. The findings are discussed below with illuminative quotations to portray the lecturers' subjectivities and performances.

### Enacting entertainment subjectivities

In the interviews, the participants recounted how they performed the self in an entertaining social capacity, and this was also witnessed during the live Kahoot! sessions, reinforcing the findings of the studies mentioned previously (e.g. Nousianien et al., 2018). As the lecturers verbalised and enacted these subject positions, their professional subjectivities were bolstered (Symon & Pritchard, 2015). The data analysis unveiled how lecturer performances were mainly driven by the pedagogical and personal inclination to motivate learners and positions frequently cited spanned '*hype man, game show host* and *quiz master'* (Howard, 2022, p. 10*)* and more. For example, it was evident that for Lecturer 1, the purposeful performances of the self an encourager, director and cheerleader were renderings of idealised subjectivities:

*I always try to become an encourager when we are playing. I really want to keep the students' attention and motivation at all times. Sometimes I am also acting as a director controlling the speed, but I am also like a cheerleader who motivates them.* (Lecturer 1)

In this excerpt, Lecturer 1 illustrated various modulated subjectivity performances during Kahoot! These were also palpable during the observations as the participant became excited, animated and fully engaged in the performative practice. Additionally, personal pedagogical preferences, mirth

[4] For a full account of the findings, please see Howard (2022).

and the affordances of the digital platform became enmeshed in gamification practice to sustain further ideational subjectivities:

> *I am not a strict teacher or someone who uses a lot of discipline. Kahoot! works well for me and the students because it's a lot of fun and its entertaining, too. My teaching style goes well with it because, like me, it's a light approach, it's familiar and it's amiable*. (Lecturer 3)

Meanwhile, whilst most participants exploited Kahoot! to inspire their learners in a friendly and cordial manner, Lecturer 5 took a different approach. This participant utilised the affordances of gamification to adopt a more authoritarian, yet still encouraging self-presentation during the socio-material enactment of kahoot quizzes:

*Kahoot! is a great method for students to see where they need to improve. It can help them notice when they need to reinforce concepts and notice what they are missing. I can use kahoots to encourage them to study more and I like that I can still be an authentic teacher during the games.*

In consonance with this, I witnessed Lecturer 5 performing the self in a didactic, disciplinary way, yet still inspiring learners, as they captured the gamification affordance of highlighting incorrect responses. Lecturer 5's social agency, professional subjectivity and Kahoot! were imbricated to identify and help resolve learners' knowledge deficits while conducting formative assessments.

**Capturing the affordances of aural and visual digital materiality**

The embedded digital materiality of the Kahoot! platform, including the music, the leader board and the timer had pertinence for the inspirational performer subject positioning during the both the games witnessed and the interviews, highlighting the 'digital significance' of Kahoot! elements (Campbell et al., 2021, p. 5). The lecturers as inspirational performers were imbricated with these digital functions and symbols, demonstrating the 'salience of aural and visual material agency in gamification practice' (Howard, 2022, p. 11). For example, as Lecturer 2 described:

*I love the music. You can choose different tracks and it really helps to get the students pumped up and in the mood. It creates a great atmosphere.*

For Lecturer 2, the music, as a digital artefact, affords sensory aesthetics (Rafaeli & Vilnai-Yavetz, 2004) which help to accomplish the lecturers' social intention of inspiring students (Howard, 2021d). This enables the performance of an ideational subjectivity; the engaged teacher who is able to

harness the affordances of music selection, but also fashion what the music can do in the online space to align with the educators' objectives. Similarly, the inspirational performances were bolstered during the socio-material imbrication of verbal articulations and the perceptible affordances captured by the digital leader board, as explicated by Lecturer 3:

*I like to use the leader board to motivate students, especially for those who aren't at the top very often. So, if a student is suddenly doing very well, I say something humorous and entertaining, like a presenter talking during a sports match. Referring to the leader board after every question and getting excited is a great way to motivate the students.*

The participants also described how the timer on Kahoot! was pivotal in encouraging students. Lecturer 4 explained how the timer's affordances could represent a material ally with the lecturer in training learners to respond to time-sensitive activities: *Having a timer creates some pressure. But it's good pressure, you know*. *It is reminding them of the importance of responding in an allocated time. They see the need to answer quickly, like they will need to do in exams, and it adds to the buzz of the game.*

This denotes the imbrication of Lecturer 4's social intent and the timer's material capacity to spur student activity whilst reinforcing positive behaviour. Furthermore, as the human and material enmesh, this gives rise to a socio-material capability with which the lecturer successfully enacts gamification to perform the self both as an inspirer and pedagogical coach.

## Conclusion

Attending to both the social (human) and the material (Kahoot! and its related digital materiality) demonstrates how lecturer subjectivities may be performed during gamification practice. The findings depict how pedagogical intentions, quiz enactment, and the range of affordances embedded in Kahoot! are imbricated to create significant 'residue' (Leonardi, 2011, p.151), including enhanced pedagogical practices and lecturer subjectivities as inspirational performers who can garner and sustain learner engagement. This study adds to our understanding of how lecturer subjectivities may be fashioned not only through discourse, but also through the human entanglement with educational technologies.

Since this study was conducted online, it is suggested that future research could investigate gamification imbrications in lecture hall or classroom-based contexts, to include an embodiment perspective (Schultze, 2010) of lecturer professional subjectivities. Additionally, ethnographies performed over an extended period are in keeping with a socio-material sensibility and could unveil how gamification imbrications progressively fashion lecturer professional subjectivities.

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