Commentary on promoting the mental health and wellbeing benefits of using student response systems (SRS) in higher education: more than just a learning device

Paul McGivern

Abstract

Purpose – *This commentary discusses the broader potential of student response systems (SRS) regarding their positive impact on student mental health and wellbeing. The purpose of this paper is to draw on relevant literature to illustrate the wider social and intrapersonal benefits of SRS beyond its use as an educational tool.*

Design/methodology/approach – *Tenets of social information processing theory are used in conjunction with the literature from health, sociological and psychological disciplines to explicate the mental health benefits of SRS.*

Findings – *SRS can make a positive contribution students' mental health and wellbeing, thus assisting the broader pastoral support and employability frameworks of higher education institutions.*

Originality/value – *An original perspective on the use of SRS in promoting the mental health and wellbeing of university students*

Keywords *Higher education, Mental health, Wellbeing, SRS, Student response systems*

Paper type *General review*

Paul McGivern is based at School of Psychology and Therapeutic Studies, Leeds Trinity University, Leeds, UK.

Introduction

Student response systems (SRS) have been a relatively commonplace feature in higher education (HE) for some years. Early systems that used "clickers" (Katz *et al.*, 2017) have given way to more sophisticated software enabling large cohorts of students to interact during teaching sessions in real-time. Software such as *MentiMeter* and *Vevox* enable students to respond anonymously via internet-connected devices using a range of formats such as multiple-choice questions, word-cloud creation or open-text (Vallely and Gibson, 2018; Moorhouse and Kohnke, 2020; Nina *et al.*, 2022). Research into SRS has documented the positive effects of using them in teaching settings, evidencing how they can reduce mind-wandering (Iwamoto and Hargis, 2018) and promote engagement and learning (Blood and Neel, 2008). Whilst a significant body of research has understandably focused on the educational benefits of SRS, the broader benefits to mental health and wellbeing are largely overlooked. The following article discusses how SRS can be leveraged to promote inclusion, belonging and confidence among students in HE and the subsequent benefits to wellbeing beyond their use as an educational tool.

The global pandemic and post-Covid-19 mental health crisis: the sea change in technology's role in higher education

The global pandemic pushed technology centre stage when enforced lockdowns moved education into online spaces (Robson *et al.*, 2022). Despite a range of personal,

technological and logistical challenges, educational institutions enabled students to continue with their studies. This event facilitated engagement with technology on an unparalleled scale and arguably permanently changed the role of technology across all levels of education globally (McGivern and Shepherd, 2022). Beyond learning, online teaching sessions enabled students to maintain contact with their peers – a vital facet to the learning experience – during such a difficult time. During lockdowns, students were isolated in various types of accommodation in differing circumstances. Online communications became a lifeline to many, and this re-enforced the social role technology plays in keeping us connected (Jurakovic et al., 2022). However, the global return to on-campus learning was (and continues to be) met with a degree of reticence and uncertainty. Many students are reluctant to return to face-to-face learning environments to avoid socialising (Kairinos, 2022). Many students had become adjusted to the rhythms and benefits of online learning (Slack and Priestley, 2022), causing an awkward readjustment when lockdowns were lifted. Consequently, post-pandemic, many institutions have experienced issues surrounding student attendance and engagement (Williams, 2022), resulting in fractured and uncertain cohorts. The need to unite student cohorts has, therefore, never been greater as educators strive to develop and implement innovative methods of engaging large groups of students.

Student response systems can be used innovatively to promote mental health and wellbeing

Establishing equity and promoting inclusion in HE requires institutions to develop and implement flexible policies that can move in tandem with changing landscape of student cohorts of today. Students reside at the heart of HE endeavours, which makes students the ideal centre from which the ripple effects of positive change can originate. The benefits of the widening participation agenda mean that student cohorts are now more diverse than ever before with people from different cultures and backgrounds of different ethnicities, identities and socio-economic statuses (Younger et al., 2019 for a review). Students can therefore reap the benefits of learning among a diverse community of learners, which is an invaluable experience alongside their course-related knowledge and learning. As a result, students complete their studies with a deeper appreciation of diverse cultures, backgrounds, ethnicities, identities and religions, which is vital as they move into their chosen fields of work or future study. However, to achieve this, students must be given the opportunity to connect with their peers. Many students find it difficult to establish friendships at university (Beard et al., 2007), report feelings of imposter syndrome (Murray et al., 2022) and/or are generally reluctant to speak out or ask questions (Hoekstra and Mollborn, 2012). Universities have long been a space to promote openness and curiosity and, in more decades, a place to challenge stereotypes and promote equity. SRS can, therefore, be used as the social "glue" to bring cohorts closer together through openness, honesty and a desire to understand ourselves and each other. SRS provides students with an anonymous voice, which can alleviate fears of speaking out, particularly in large cohorts (Paul, 2019). This combination of features can serve to quickly convert large audiences of seemingly unconnected individuals into a unified cohort (Middleditch and Moindrot, 2015). The positive impact that this has on learners can be easily overlooked when SRS are used in a course-related educational capacity. This is understandable given that this is their primary function in HE. However, for learning to be optimised, students first must feel that they belong. Optimal conditions for learning require an individual to feel confident in their abilities and a sense of belonging to their cohort (Pedler et al., 2022). The benefits of SRS are key here and are reflected in two of the key tenets of social information processing theory (SIPT) within the context of computer mediated communication (CMC) (Walther, 2008). Briefly, CMC comprises three modes of communication: impersonal, interpersonal and hyperpersonal. The hyperpersonal phase is not relevant to SRS given that such platforms (or educational settings) are not conducive to such forms of CMC. However, the following section will evidence how both impersonal and interpersonal modes of CMC using SRS can promote improved wellbeing among students.

Specifically, how impersonal CMC maps to educational uses of SRS and interpersonal CMC map to social uses, but also how using both forms of CMC promote broader underpinning socioemotional wellbeing.

In digital environments, text-based message content replaces non-verbal cues, collectively referred to in the literature as "cues-filtered-out" theories (Walther, 1993). Prior to Walther's work, the lack of non-verbal cues was collectively held as a drawback to developing relationships in digital environments, which has since been challenged. Impersonal modes of CMC highlight how the absence of a socioemotional facet to communications can focus attention on depersonalised, task-oriented thinking. This can foster knowledge-seeking behaviours due to lean information/message content; thus, the educational benefits here are more overt within the context of SRS. However, such forms of CMC also democratise cohorts due to the removal of any social status and power (Walther, 2008). This equitable environment coupled with anonymity and the openness that universities regularly promote, therefore, provides students with a safe digital space to share questions, thoughts and opinions. It permits students to learn from others, and their own responses, on a range of topics beyond that of their programme of learning. The participatory element of the process promotes togetherness across the cohort and often healthy competition in response to quizzes, which students find enjoyable (Heaslip *et al.*, 2014). From an educational perspective, the confirmatory nature of feedback provided in response to questions serves to grow knowledge, develop empathy, resilience and confidence, given that feedback is useful in relation to their learning goals. Learning in this instance can be directly tracked against learning goals (Lipnevich and Panadero, 2021, for an extensive review of learning models). Self-confidence (Lone, 2021) and self-esteem (Rosli *et al.*, 2012) both correlate with academic performance, and it is important that stakeholders in HE do not overlook the development of these crucial characteristics alongside learning and achievement. Taken together, the educational benefits of impersonal CMC using SRS help to re-enforce the foundations positive mental health and wellbeing by irradicating feelings of imposter syndrome and unifying cohorts. Furthermore, SRS usage can be expanded to draw on interpersonal modes of CMC, which can further contribute to students' positive mental health and wellbeing.

SRS can be a great way for students to promote social interaction at a level that they are comfortable with (Licorish *et al.*, 2018), which can enable students to confidently solidify their identity within their group. As cohorts of students move through their studies, the use of SRS can evolve in tandem and be used in ways that reflect interpersonal forms of CMC. Interpersonal communications can be between one or many other individuals with an increase in social information by comparison to impersonal CMC (Walther, 1993). Text-based information exchanges using SRS are still lean though cohorts can develop firmer impressions of one another via continued information exchange/sharing. Interpersonal CMC involves the sharing of more social information. The key here is the time available to students to craft their responses to SRS cues whilst still enjoying the benefit of anonymity. Unlike face-to-face communications, CMC allows for extended response times. There are also longer periods of time between information sharing by comparison to face-to-face interactions. This can allow students to take a considered approach to their interactions and take part in SRS exchanges at a rate that suits them. A sense of belonging is important for sustained engagement with any programme of studies, which was reflected in the findings of Licorish *et al.* (2018). It is, therefore, important that students are afforded the opportunity to develop their identity within their cohorts. The promotion of self-authenticity is of particular importance among student cohorts in today's uncertain economic climate (James *et al.*, 2021) and is something that has been further impacted by the global pandemic (Liu *et al.*, 2021). Tensions between a desire to be authentic and the desire for social approval (James *et al.*, 2021) mean that educators need the tools available to them, such as SRS, to nurture these fundamental characteristics in preparation for life beyond university. Indeed, pathways into employability have become a key metric attached to university programmes of study (Cheng *et al.*, 2022); institutions recognise the importance of developing strong

interpersonal and intrapersonal skills for career readiness. A student's sense of belonging to their cohorts is key here, which too is integral to wellbeing (Evans and Bath, 2020), thus serving as an essential foundation for both learning and career readiness. Again, despite the scope for SRS to be used innovatively here in social interpersonal contexts, an absence of literature in this area suggests that these opportunities may be missed or simply not acknowledged or promoted. HE institutions recognise the importance of students' mental health, which is reflected in the increasing role that pastoral support plays across universities, particularly post-pandemic (Spears and Green, 2022). SRS can be used innovatively in both educational/impersonal and social/interpersonal formats collectively to make a positive contribution to student mental health, career readiness and the wider employability and pastoral support frameworks of HE.

Challenges moving forward

Digital poverty in HE is a well-documented issue. The technological response to the global pandemic parsimoniously addressed this issue via the provision of hardware and software to enable continued engagement with studies (Butcher and Curry, 2022). In many ways, the pandemic compelled greater engagement with technology across the sector, and as a result, many staff and students are better trained and equipped regarding the use of interactive and social technologies post-pandemic. Whilst this went some way towards addressing issues of digital competency and poverty (Crick, 2021), there remains much work to be done in this area. For SRS to be effective, it is vital that all students can engage when opportunities are presented. An inability to engage in SRS exchanges risks students feeling ostracised from their cohorts, leading to potential negative effects. Much like many facets of daily life, it is likely that technology will play an increasingly prominent role in HE. Institutions, therefore, need to ensure that sufficient policies are created and maintained to ensure equitable access to technology for their students, sufficient training for staff and clear guidelines for use (Almpanis, 2015). Educators – and SRS users more broadly – must also take steps to ensure that necessary accessibility checks are conducted before using them in teaching sessions to ensure that students with disabilities are able to engage effectively in sessions. Students reside at the heart of all HE institutions, but it is the responsibility of stakeholders to help bond cohorts and ensure that they move through their programme of studies in a united manner.

Summary

This commentary highlights how SRS can be used innovatively to contribute positively to the mental health and wellbeing of students if used both as an educational and social tool. It is likely that educators currently using SRS are already providing these benefits to students. However, whether that is formally recognised a different matter. Tenets of SIPT highlight how SRS have great educational *and* social potential across HE, and it is vital that educators possess a nuanced understanding of the intricacies of digital communications to harness and optimise their potential. As employability and pastoral care forms an increasingly integral part of the student experience, the need to nurture students educationally, individually and holistically is now a fundamental part of the ethos of HE institutions. Student wellbeing is central to these endeavours to which the innovative use of SRS in a more conscientious and considered manner can make a positive contribution to student mental health, career readiness and the wider employability and pastoral support frameworks of HE.

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Corresponding author

Paul McGivern can be contacted at: p.mcgivern@leedstrinity.ac.uk