Quick Response codes for virtual learner evaluation of teaching and attendance monitoring
Codes de réponse rapide pour prendre les présences aux cours en ligne et pour faire évaluer l’enseignement virtuel par les étudiants

Roxana Mo, Emily Wright, Iain MacGarrow and Sangeeta Pathak

Volume 12, Number 3, 2021

URI: https://id.erudit.org/iderudit/1080239ar
DOI: https://doi.org/10.36834/cmej.71708

See table of contents

Publisher(s)
Canadian Medical Education Journal

ISSN
1923-1202 (digital)

Article abstract
Implication Statement: Monitoring attendance and obtaining timely learner evaluations for virtual teaching sessions can be challenging. At our Obstetrics and Gynecology webinar programme, we have utilised Quick Response (QR) codes for this purpose. Following each session, attendees scan an on-screen QR code which links to an online evaluation form and registers their attendance. Feedback can therefore be obtained quickly, is scalable to large participant numbers and is securely stored in digital format. QR reader applications are widely available and cost-free, which makes this technique accessible for learners. Using QR codes for teaching evaluation is simple and could be adopted across many educational applications.

Cite this document
Quick Response codes for virtual learner evaluation of teaching and attendance monitoring
Codes de réponse rapide pour prendre les présences aux cours en ligne et pour faire évaluer l’enseignement virtuel par les étudiants

Roxana Mo,1 Emily Wright,2 Iain MacGarrow,3 Sangeeta Pathak4
1Mid and South Essex NHS Foundation Trust, UK; 2Lister Hospital, East and North Hertfordshire NHS Trust, UK; 3Blandford Medical Centre, Braintree, UK; 4Hinchingbrooke Hospital, North West Anglia NHS Trust, Huntingdon, UK
Correspondence to: Roxana Mo MRCOG MRCS PGCert MedEd; email: roxanacymo@googlemail.com
Published ahead of issue: March 22, 2021; published: June 30, 2021. CMEJ 2021, 12(3) Available at http://www.cmej.ca
© 2021 Mo, Wright, MacGarrow, Pathak; licensee Synergies Partners
https://doi.org/10.36834/cmej.71708. This is an Open Journal Systems article distributed under the terms of the Creative Commons Attribution License. (https://creativecommons.org/licenses/by-nc-nd/4.0) which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is cited.

Implication Statement
Monitoring attendance and obtaining timely learner evaluations for virtual teaching sessions can be challenging. At our Obstetrics and Gynecology webinar programme, we have utilised Quick Response (QR) codes for this purpose. Following each session, attendees scan an on-screen QR code which links to an online evaluation form and registers their attendance. Feedback can therefore be obtained quickly, is scalable to large participant numbers and is securely stored in digital format. QR reader applications are widely available and cost-free, which makes this technique accessible for learners. Using QR codes for teaching evaluation is simple and could be adopted across many educational applications.

Introduction
Virtual teaching is present in many educational settings.1 However, monitoring attendance and obtaining timely learner evaluations for virtual teaching can be challenging when using virtual video-conferencing platforms.2

A QR code is a two-dimensional barcode which is scanned through the camera function of a mobile device. QR codes have the benefit of high useability and cost effectiveness. They are well received by learners and faculty.3 Recognised limitations include the necessity of good internet access, technical difficulty scanning the barcode, and the perceived acceptability of using mobile devices in clinical areas.3 They are widely used within medical education to facilitate formative student evaluation, assist just-in-time learning, and as an adjunct for trainee logbook administration.3,4 However, no published study currently describes QR code usage for monitoring attendance or learner feedback.
Innovation
We have successfully utilised Quick Response (QR) codes to monitor attendance and obtain learner evaluations of teaching at a webinar teaching programme for postgraduate Obstetrics and Gynecology trainees across the East of England deanery. We generate a feedback form in Microsoft Forms, which automatically creates a QR code. At the conclusion of each webinar, the QR code is shared on screen by the teacher (Figure 1). The attendee uses a smartphone to scan the code, which links to an online evaluation form and registers their attendance. Participants provide feedback on content, relevance, delivery, and interactivity using a 5-point rating scale (1 = strongly disagree to 5 = strongly agree). Attendance certificates are emailed to trainees on completion, which incentivises the attendee to complete the evaluation. The de-identified and aggregated responses are then sent to the teacher.

Evaluation
We evaluated the preliminary results of our technique in the setting of our webinar programme. We used QR code feedback following 16 virtual sessions. Each webinar had between 25-55 registered attendees (median=34). Most (67-91%) evaluation forms from each webinar were received through a QR code. Email feedback responses were obtained from the remainder of attendees (though only administrative data are reported here). We did not assess whether non-use of the QR code was because of technological failure to scan or because of user preference towards email.

Smartphones are ubiquitous and most trainees in our setting own a mobile device. Our technique has therefore been widely accessible to our learners. From an administrative perspective, a paperless digital evaluation format allows learner evaluations and attendance data to be securely stored into a cloud database and is easily shared. This feature has been particularly useful for analysing the learning needs of our trainees. Virtual attendance monitoring is used to ensure trainees are attending sufficient teaching sessions. Scalability is another benefit. QR evaluation is scalable to unlimited numbers of webinar participants. Lastly, QR code generators, readers, and many survey softwares are currently cost-free to use.

Limitations
Poor internet connectivity is a potential barrier to reliable scanning of QR codes. We recommend that trainees have reliable internet connectivity when attending the webinars to ensure sufficient audio-visual quality. Attendees who cannot utilise the QR code are later emailed an evaluation form. We recognise that our technique does not measure the duration of learners’ attendance.

Next steps
We plan to evaluate learner and teacher acceptability of this method as well as the frequency of failure. Virtual learning is rapidly expanding and this technique should be adopted across many educational applications including other specialities within our deanery.

Conflicts of interest: None declared.

References