# Chapter 6 Using Mobile Phones for Assessment in Contemporary Classrooms

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# **ABSTRACT**

The main focus of this chapter will be using mobile assessment (m-assessment) for teaching and learning in formal and informal education. M-assessment has been handy for improving learning realized in traditional and contemporary classrooms such as digital classrooms, informal and formal learning settings, professional development settings, and anywhere that learning happens. M-assessment has increased accessibility anywhere, anytime, and by anyone. Moreover, m-assessment contributed to assessment practice by changing how information is collected and providing various mobile formative and summative assessment tools. Effectiveness of m-assessment for improving learning will be discussed by examining evidences regarding learning achievement, student engagement, and cognitive load. Various challenges of using m-assessment were highlighted. Suggestions for overcoming such challenges and using m-assessment effectively were provided under two headings: (a) smart use and (b) smart design of m-assessment. Future research directions were described.

### INTRODUCTION

Mobile assessment has increased teacher accessibility to offer students quick, immediate and faster feedback. By the same token, assessment via mobile means has also increased student accessibility to receive feedback from anywhere, at anytime, and by anyone. These affordances of mobile assessment (m-assessment) increase the link between learning and assessment by increasing engagement and feedback time. Moreover, the anywhere, anytime, and anyone availability of m-assessments aligns well with the idea of contemporary classrooms. This chapter will offer a variety of mobile assessment examples

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from different contexts and will also highlight their transferability to learning and education. While some examples will be offered from outside of the learning and educational sectors; such as sports, physical and psychological health, museums, such examples will provide a progressive overview of how mobile assessments existed and evolved into innovative tools that we can use today. The main focus of the chapter will be using mobile assessment for teaching and learning for individuals' personal development as well as formal and informal education. Before delving into mobile assessment, we first need to delve into mobile learning (mLearning) and its added affordances that enabled creating contemporary classroom spaces.

Mobile learning is comprised of using mobile or handheld technology, in combination with or separately of other Information and Communication Technologies (ICT), to enable learning on the go, effectually making learning available anytime and anywhere. Learning can be stimulated or unfolded in a variety of ways: users can use mobile devices to access educational resources, connect with others, create content both inside and outside of classrooms as well as generating evidences for the learning that occurred by taking or activating mobile assessments. While this chapter will focuses on using mobile assessments within the mLearning context, within the discourse of contemporary classrooms we also pay considerable effort to narrate how to leverage mobile devices in various other teaching and learning contexts. We firmly believe that such discussions on using mobile assessments in contemporary classrooms for learning can be applied to other cultural, corporate and non-profit spaces. Since mobile devices are highly available, to the point where in some cases mobile devices can be the only available technological tools, and highly ubiquitous that mLearning becomes a natural and critical part of any learning infrastructure. Therefore, mobile phones are critical agents in contemporary classrooms.

Despite the lack of a standard definition for contemporary classrooms, today's notion of classrooms can be expanded to variety of contexts that are not bounded by physical classrooms such as commuting, kitchens, or museums. The contemporary classroom can be imagined and realized as contexts where various technological affordances and educational facilitation involves and promotes student-centered, active learning. In such classrooms, both collaborative and individual knowledge building are done, and mutual respect to all members of this learning community is valued. The aforementioned description of contemporary classrooms is expanded with people of all walks of life having more ICT access and becoming more engaged, abled, and empowered to learn with mobile technology. Learning becomes available everywhere, including low-income and high-income areas and countries. In any context, the role of technology, and mobile technology in particular, cannot be ignored in contemporary classrooms. An example of contemporary classrooms can be a kitchen, one's commute or online massive open online courses (MOOC). Unlike traditional classrooms such as those classes held in physical spaces created for formal teaching and learning, contemporary classrooms may not be restricted by physical constraints such as the need for a physical classroom or fixed times to be in a physical classroom. Moreover, needs of diverse learners can be addressed easier in contemporary classrooms than in traditional classrooms. For example, every learner in the MOOC environment can progress within classes with his or her own individual learning pace and return to a previous lecture in the course if needed. Granted though, MOOCs generally operate outside of traditional educational time frames and deadlines, ranging from staggered start dates to set deadlines for assignments and grade submissions. Despite such differences between the two types of settings such as temporal restrictions versus temporal freedom, physical limitations and learners' role and engagement, the ultimate similarity would be that both contexts aim at meaningful learning. The key here though is, how the educational journey is assessed to show evidence of the learning and development? And while this learning engagement is on the go, with mobile devices in hand, how is this learning assessed?

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