Use of Mobile Learning APPs in TVET: an emerging need at the Internally Displaced Persons' Camp in Northern Nigeria

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Abstract
Insurgencies in some northern part of Nigeria made a lot of families who survived the scenario to flee to IDPs for the security of their life, food, clothing and shelter. As such the paper discussed mobile learning in TVET as recommended for the IDPs since their right to education has been denied. In this piece of work, mobile learning is defined as learning with relevant and converging mobile technologies such as cell phones, Personal Computers, Tablets, palm tops and videos while on the move. The paper also discussed the rational for advocating Mobile learning and TVET in IDP camps and the relationship between mobile learning and TVET. Some of the challenges in the implementation of TVET at the IDP camp include poor ICT infrastructures, high cost, technical and content issues among others. Varieties of APPs were recommended for the mobile learning to include Claro, Appulse, Impatica, Andrenna mobile, Black board mobile, Goknow mobile learning environment, KMxMobile and many others. Basically mobile learning content TVET areas designed for the IDPs included different skills in automobile craft, building construction, carpentry and joinery, electrical electronics, metal work and GSM repairs. It was however recommended that poor ICT infrastructures, appropriateness of contents and battery issues be addressed before the implementation of the programme at the IDP camps in Northern Nigeria.
Keywords: Mobile-learning APPs, Mobile learning, IDPs, TVET

Introduction

Learning can be unfolded in a variety of ways using different technologies. People can use mobile devices to access educational resources, connect with others, or create content, both inside and outside classrooms. This is associated to what is today referred to as mobile learning (m-learning). A first step in understanding of mobile learning is to distinguish what is special about mobile learning compared to other types of learning activity. An obvious, yet essential, difference is that it starts from the assumption that learners are continually on the move. Thus, Mobile learning according to UNESCO (2013), involves the use of mobile technology, either alone or in combination with other Information and Communication Technology (ICT), to enable learning anytime and anywhere. Mobile learning also encompasses efforts to support broad educational goals such as the effective administration of school systems and improved communication between schools and families. Mobile learning in the view of Steve (2017) refers to the use of mobile or wireless devices for the purpose of learning while on the move. This type of learning is recommended for learners at the internally displaced person's camp (IDP) since they are not stable due to sectarian crisis. Typical examples of the devices used for Mobile

learning (m-Learning) include cell phones, smart phones, palm-tops, Videos and hand-held computers. Tablet Personal Computer (PC) s, laptops and personal media players can also fall within this scope (Kukulska-Hulme, 2010). The purpose of those m-learning devices is to accommodate the m-learning applications (APPs) for the m-learning.

M-learning is an abbreviation for the word mobile learning. It is a form of learning delivered using Applications containing different packages of educational content meant to be delivered to the Mobile learner (m-learner). As the name suggests, Asha (2016) asserts that mobile learning APPs are delivery format that provides learners with the flexibility to learn anywhere, anytime even without internet connection. A mobile learning APP let an individual to view learning content offline from the mobile device. Individuals don't need internet access to download the course thought and so is the case with tracking the progress of learners through the Learning Management System. Some of these APPs as listed by Don (2012) include; Claro, Appulse, Impatica, Andrenna mobile, Black board mobile, Goknow mobile learning environment, KMxMobile and many others. These APPs can be designed to consist of educational contents in TVET areas such as Automobile work, Building construction, woodwork/ carpentry & joinery, electrical/electronics, metal work and GSM Repairs.

TVET, according to UNESCO (2013) is used as a comprehensive term referring to those aspects of the educational process involving in addition to general education, the study of technologies and related sciences and acquisition of awareness, knowledge, skills and attitudes relating to occupations in various sectors of economic and social life. Gotom and Nungse (2016) opined that acquisition of such practical skills is the essential core of TVET. For TVET to be appreciated better at the IDPs, displaced persons need to be trained through one or two of the skills in TVET. The TVET skills which the IDPs requires include maintenance in Automobile work, Building construction, woodwork/ carpentry & joinery, electrical/electronics, metal work and GSM Repairs. Internally Displace persons (IDPs) are persons or group of persons who because of armed conflict, systematic violations of human rights, internal strife, or natural or man-made disasters have been forced to flee their homes or places of habitual residence suddenly or unexpectedly, to another location but have not crossed an international recognized state border (Office of the Coordinator of Humanitarian Affairs, OCHA, 2003; Ladan, 2006). The major causes of these IDPs in Nigeria according to Gotom and Nungse (2016) are due to Nigerian inter-communal and political violence, flooding and forced evictions. Irrespective of the cause of the displacement, the phenomenon always leaves socio-economic footprints on millions of people nationwide (IDMC, 2013). According to Vanguard News of June 21, 2015, the victims of Boko Haram ate grass, sand, drank urine, muddy water while in hiding.

Internally displaced persons (IDPs) arising from violent clashes are victims of various kind of injustices, violent confrontations, perpetrated against them by agents of communal clashes, riots, terrorism, natural disasters, religious conflicts, among others (Hamza, 2013). These set of individuals are exposed to all sort of untold hardship and need serious help. What will actually help the IDPs is acquiring relevant TVET skills before leaving the IDP camp. The difficult situation found in the IDP camps and after leaving the IDP camps prompted the integration of mobile learning in TVET with the IDPs in the northern Nigeria which is the thrust of this paper. Specifically, m-learning is geared towards

training the IDPs with different TVET skills in Automobile work, Building construction, woodwork/ carpentry & joinery, electrical/electronics, metal work and GSM Repairs for self sustainability after surviving the hardship in the IDP camp. This therefore necessitates the need to unveil the relationship between mobile learning in TVET, rational and challenges of M-learning in the IDPs Camp.

Relationship between mobile learning and TVET

In some ways the benefits of mobile learning are felt in TVET as much as in other education settings. Some of these benefits as opined by Steve (2017) include improving channels of communication between lecturers and students, enabling easy access to and participation in peer-to-peer learning networks and immediate assessment and feedback. However, mobile learning has particular relevance for TVET because the learning is practical and happens in non-traditional settings, such as the workplace. When learning on-the-go, having just-in-time, access to the necessary study materials is essential. Further, mobiles can be used to record activities, allowing for remote support from educators – the potential of situated learning, or for review later in a college scenario. The flipped classroom -- studying at home or at work and undertaking practical exercises at college is supported by mobiles that enable learning at any time.

In extension, the impact of m-learning on learning at the IDPs included increased or improved learner motivation, engagement, behaviour, retention and achievement. According to Steve (2017), The Distance Learning for Apprentices project, active from 2008 to 2010 across a number of European countries, focused on using mobiles to support vocational education teachers. That is by connecting them to the students for communication, information sharing and progress monitoring. It also provides a framework for how pedagogy might change when using mobile technologies. Furthermore, it offers guidelines for using mobiles in distance education. Mobile learning is also in line with the distance learner which is hoped to be diffused into the IDPs camp in Nigeria as well to enable acquisition of varieties of Technology vocational and training skills.

The rationale for m-learning and TVET at the IDPs in Northern Nigeria

Self sustainability and financial independence is a major concern of the IDPs both in the camp and life after camp since their education, food produce, shelter, clothing and peace has been hampered. It is not all about how to survive at the IDPs but how to maintain sustainability after leaving the camp. This is why Gotom and Nungse (2016) asserted that the IDPs need to be trained in specific area of TVET which would enable them to be relevant in the society after regaining peace in their homes and the communities. Since the IDPs have been denied of access to formal education in permanent classrooms or workshops, m-learning in TVET becomes imperative for this purpose as opined by Steve (2017). Thus, the areas in TVET include but not limited to automobile crafts, building construction, woodwork/carpentry and joinery, electrical electronics, internet & networking and GSM. Specific APPs containing training module would be made available for download at the training ground or at the learners convince. The learning contents which consist of the required TVET skills is design to take care of the learners need and that of the society as shown below.

- Auto electricity
- Battery charging
- Maintenance
- Vulcanizing
- Maintenance
- Painting

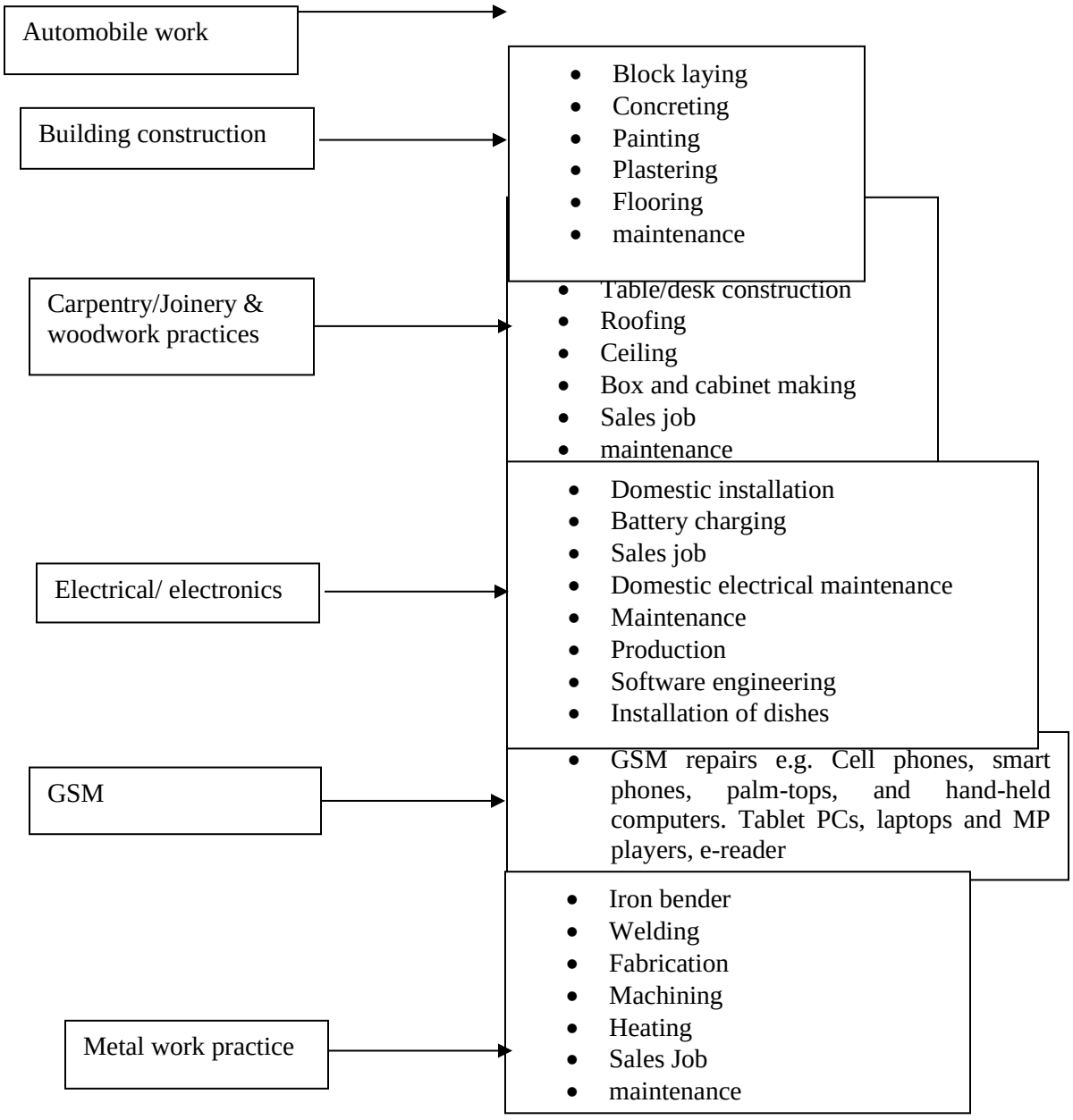

Fig. 1 Mobile learning educational content in TVET for the IDPs developed by Nuhu (2017)

Challenges of implementing m-learning Apps in TVET at the internally displaced persons' camp in Northern Nigeria

Since the essential core of mobile learning is learning on the move, it has some challenges that need to be overcome for proper implementation. The following are some of the challenges as enumerated by (Steve, 2017).

Poor ICT infrastructure: According to Nungse and Shetima (2016), teachers need to overcome barriers to teaching in digital world. Poor ICT classes and workshops, inadequacy and unqualified digital teacher, insufficient and non-functional digital ICT infrastructures, lack of Technologist that can handle the practical aspect of ICT, and workshops are major ICT challenges. Francis, Clive & Jey (2013) further asserted that Mobile technology adds an additional layer of complexity and preparation and might also entail repackaging course content to fit the handheld device. Access to functional ICT infrastructures would constitute a great deal in the implementation of M-learning at the IDP camps.

High cost of devices and access for learners: It is true that ICT infrastructures are costly in the market. ICT gadgets are appliances that require funding. State Emergency Management Agency (SEMA), National Emergency Management Agency (NEMA) and, International Displacement Monitoring Centre(IDMC) and other Non governmental agencies NGOs should therefore help in putting ICT infrastructure in place to fast tract the m-learning implementation at the IDP camps Gotom & Nungse (2016).

Data security: Mobile connection increases their exposure to security threats as asserted by Kukulska (2010). The risk of potential breaches of corporate networks is holding many systems from implementing mobile learning.

Content issues: training material created from the classroom rarely work well for mobile learning. File size and format that computers and laptops easily manage often lead to performance problem for mobile device. Steve (2017) further stated that the challenge of creating and adapting TVET content for mobile consumption can delay or disrupt mobile learning programme.

Technical Challenges: Technical challenges might be a significant aspect to implement and integrate m-Learning. Adams (2015) asserted that some of the technical challenges include: Limited battery, small screen size, data security issues, adjusting to multiple-operating systems, and multiple screens risk of sudden obsolescence, and meeting required bandwidth for fast streaming

Literacy level of the learner: Since some of the IDP has no background of formal and vocational education, learning comprehension can be difficult. Furthermore, Kukulska (2010) asserted that time consistency for the teaching and learning of this programme may not be adequate since learners are on the move and not stable in the camp. This may lead to haphazard approach to teaching of the intended content in the IDP camps.

Risk of distractions: according to Sairam (2017). The short attention span of modern learners can be the matter of concern for mobile learning. On top of that mobile learners are subject to potential distractions such as email alerts, phone calls, games, mobile apps and what not. To narrow down these concerns, we can create a mobile learning course in a precise and interesting way that engages the distracted learners and help them stay focused throughout the course

Conclusion

A first step in understanding of mobile learning is to distinguish what is special about mobile learning compared to other types of learning activity. An obvious, yet essential, difference is that it starts from the assumption that learners are continually on the move. Thus, Mobile learning involves the use of mobile technology, either alone or in combination with other Information and Communication Technology (ICT), to enable learning anytime and anywhere. Adopting m-learning in TVET at the IDP camps in the northern Nigeria is a welcome development.

This type of learning suit the IDPs since it would give the learners opportunity to learning different skills in TVET to include but not limited to automobile crafts, building construction, woodwork/carpentry and joinery, electrical electronics, internet & networking and GSM. Since there is no conventional class room or workshop setting in the IDP camps, the learners expected to learn at their pace while in the camp or after peace is restored in their homes and communities. There are many APPs designed to suit each mobile learning device such as claro, Appulse, Impatica, Andrenna mobile, Black board mobile, Goknow mobile learning environment, KMxMobile and many others. .

Recommendations

From the numerous mobile learning and TVET challenges at the IDP camps, it is highly recommended thus;

1. Poor ICT infrastructural challenges should be properly addressed by NEMA, SEMA and other NGOs to enable a smooth take off and implementation of the programme at the IDP caps in Northern Nigeria
2. The contents of various APPs should be organized to suit the mobile learner
3. Mobile devices should be compactable with the file sizes and format
4. Federal government should make provision for adequate and reliable mobile devices.
5. Essential motivation be giving to both the facilitators and learners since the IDP camps are attached to security threats
6. Technical issues such as limited battery, small screen size, data security issues, and multiple screens risk of sudden obsolescence, and meeting required bandwidth for fast streaming need to be properly addressed before implementing the programme at the IDP camp.
7. The programme should be well coordinated and controlled to avoid the inherent distractions attached to the use of mobile APPS.

References

Adams, G. (2013). *Organisation's Main Themes are Liberation Emancipation and Empowerment:* Ireland. The Irish Times.

Asha, P. (2016). Mobile learning tools. https://elearningindustry.com/can-use-mobile-learning- apps-microlearning-based-training/Acessed 17.05.03

Don, M. (2012). Mobile learning tools. https://elearningindustry.com/mobile-learning-tools- mlearning-edtech./Acessed 17.05.05

Francis, B. O., Clive, T. & Jey, N. (2013). Prospects and challenges of mobile learning implementation in Nigeria: case study National Open University of Nigeria (NOUN). *International Conference on ICT for Africa 2013, February 20 -23, (6) Harare, Zimbabwe*

Gotom, Y. and Nungse, N. I. (2016). Integrating Technical and Vocational Education and Training (TVET) into Internally Displaced persons' (IDPs) Camps in Nigeria. *Review of Education, Institute of Education Journal*, University of Nigeria, Nsukka, 27(1), 323-324.

Hamzat, A. O. (2013). Challenges of the internally displaced persons and the role of the society. *The NigerianVoice*: http://www.thenigerianvoice.com/ Accessed 17.04.09

IDMC, (2013). Internally Displaced Persons. http://www.internal-

displacement.org/sub- saharan-africa/nigeria/

Kukulska–Hulme, A. (2010). *Mobile learning as a catalyst for change (Open Learning), 25(3), 4.* Available online athttp://www.ingedewaard.net/papers/mobile/2011_JISC_mobile-learning-infokit_version1.pdf/Accessed 17.05.03

Ladan, M.T. (2006). *Migration, Trafficking, Human Rights and Refugees Under International Law:* A case study of Africa, Ahmadu Bello University Press, Zaria, 9. 1-6 and 250

Nungse, N. I. & Shettima, A. (2016). Teacher professional development in a digital Age: Issues and pfosoects in Nigerian Education. *Review of education, Institute of education Journal 26(1) 86-87*

OCHA, (2015). Guiding Principles on Internally Displacement, 2nd ed., UN, New York, USA *Journal of Sociological Research*. www.macrothink.org/jsr 18/ Acessed 17.04.17.04.07

Sairam, C. (2017). Common mobile learning challenges for corporate training. http://www.swiftelearningservices.com/top-3-common-mobile-learning-challenges-for- corporate-training/accessed 17.04.05

Steve, V. (2017). Mobile learning and TVET for greater inclusion. *Mobile Learning Week 2017 co-organized by UNESCO and UNHCR around the theme of 'Education in emergencies and crises'*. www.unevoc.unesco.org/Accessed17.04.14

UNESCO (2013). Policy guidline for mobile learning. http://unesdoc.unesco.org, Acessed17.04.15

Vanguard News (2015). Boko Haram Orphans: we ate grass, drank urine. *Vanguard Newspaper of June 21, 2015.*