

**Empowering the Disadvantaged through Mobile Learning,
(M-LEARNING) - A Case Study of IGNOU Regional Centre, Bhubaneswar**

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Abstract of the research paper titled “Empowering the disadvantaged through Mobile Learning (M-Learning) – A case study of IGNOU Regional centre, Bhubaneswar”

In distance education ICT plays a pivotal role in enabling the learners to achieve their dreams for higher education at their doorsteps by making teaching and learning most interesting. Especially in the field of ICT, Mobile learning has a great potentiality for the disadvantaged sections of learners living in the interior inaccessible pockets and having little or no access to the internet facility. We may also include housewives, school dropouts, people from minorities and backward communities in the group of the disadvantaged. Mobile Learning is a blessing for the disadvantaged as it helps them to enjoy teaching and learning and get the maximum benefit out of this.

We may use the mobile learning technology for the following purposes.

1. USE OF MOBILE FOR INFORMATION

Mobile devices can be the best tool for dissemination of information to the learners and the academic counselors. In the present context of digital India and distance education it can be utilized as a tool for facilitating two ways information.

2. USE OF MOBILE FOR INSTRUCTION

Mobile devices can also be used as a teaching tool for instruction. The instructor or academic counselor can instruct the learners to make use of this to resolve learning difficulties. Difficult words or phrases or paragraphs can be better explained with the help of mobile technology. Gmail/hotmail/yahoo facilitates e-learning or digital learning for the learner. The learners can send their queries asking for instruction or academic support or counseling from the teachers. The two ways of interaction takes place through this method of mailing. E-learning materials available on the websites can be down loaded and used as and when required.

3. USE OF MOBILE FOR ASSESSMENT

Mobile devices can be used for assessment of the learner performance and the learner can be informed about his or her accomplishment in the assignment given by the academic counselor.

4. USE OF MOBILE FOR INTERACTION

The whatsapp/Facebook activated in the android mobile device can be used as a better technology for interaction between academic counselors and learners through the audio-visual mode and make it lively. The learners and teachers can share or discuss their subject matter or lessons through from anywhere anytime.

5. USE OF MOBILE FOR FEEDBACK

Mobile is a technology which can be utilized for collecting feedback of the distance learners on instruction, assessment and student services.

The paper will focus on the use of Mobile technology for all the above purposes to promote ICT-enabled learning for the disadvantaged and enhance the rates of their access and success.

KEY WORDS AND PHRASES

Mobile, distance, education, disadvantaged, digital learning, learners, instruction, assessment, feedback, student support services.

MOBILE LEARNING (ML)



INTRODUCTION

In distance education ICT plays a pivotal role in enabling the learners to achieve their dreams for higher education at their doorsteps by making teaching and learning most interesting. Especially in the field of ICT, Mobile learning has a great potentiality for the disadvantaged sections of learners living in the interior inaccessible pockets and having little or no access to the internet facility. We may also include housewives, school dropouts, people from minorities and backward communities in the group of the disadvantaged. Mobile learning is a blessing for the disadvantaged as it helps them to enjoy teaching and learning and get the maximum benefit out of this.

Mobile learning or m-learning is defined as learning across multiple contexts through social and content interactions, using personal electronic devices. A form of distance education, m-learners use mobile device educational technology at their time convenience. M-learning focuses on the mobility of the learner, interacting with portable technologies. Using mobile tools for creating learning aids and materials, becomes an important part of informal learning. Mobile learning is the ability to obtain or provide educational content on personal pocket devices such as PDAs, smartphones and mobile phones. Educational content is referred to digital learning assets which includes any form of content or media made available on a personal device.

OBJECTIVES

Mobile technologies possess educational potential for today's generation akin to that of television some 40 years ago or so.

1. Encourage anywhere, anytime learning

Mobile learning allows students to gather, access and process information outside the classroom. They can encourage learning in a real world context and help bridge school, after school and home environments.

2. Reach underserved people

Because of their relatively low cost and accessibility in low income communities, handheld devices can help advance digital equity, reaching and inspiring populations at the edges from economically disadvantaged communities and those from developing countries.

3. Improve twenty first century social interaction

Mobile technologies have the power to promote and foster collaboration and communication which are deemed essential for twenty first century success.

4. Fit with learning environments

Mobile devices can help overcome many of the challenges associated with larger technologies as they fit more naturally within various learning environments.

5. Enable a personalized learning experience

Not all people are alike instruction should be adaptable to individual and diverse learners. There are significant opportunities for genuinely supporting differentiated, autonomous and individualized learning through mobile devices.

1. REVIEW OF LITERATURE

Most researchers and educators view mobile learning as the immediate descendant of e-learning. Pink wart has defined e-learning as learning supported by digital electronic tools and media. Similarly Elias Tanya has explained mobile learning as -learning that uses mobile devices and wireless transmission. On another occasion Quinn has defined as simply learning that takes place with the help of mobile devices or the intersection of mobile computing like the application of small, portable and wireless computing and communication devices and e-learning that learning facilitated and supported through the use of information and communications technology. In addition to that author like Turunen has viewed mobile devices as pervasive medium that may assist us in combining work, study and leisure time in meaningful ways. Traxler has defined mobile technology as any educational provision where the sole or dominant technologies are handheld or palmtop devices. On m-learning most of the researchers have presented their positive views for expansion and dissemination of e-learning in the society. In the 21st century how the mobile technology will be helpful for learners of disadvantaged sections of the developing countries as advocated by the most of the researchers in their research projects or articles.

2. CHALLENGES

In the present context of mobile learning, it is very much required to deliberate on the aspect of challenges while using the devices as educational tool for acquiring and imparting education at the doorstep of the learners. In the distance education in what way the mobile learning face minimal challenges, of course that can be avoided with the will power of the distance learners, educational institutions and the academic counselors are to be discussed.

A. Limiting physical attributes

Physical aspects of mobile technologies that may prevent an optimal learning experience include restricted text entry, small screen and limited battery life.

B. Limited network in the inaccessible place

The use of mobile technologies can have adverse effect on the teaching and learning due to limited network services in the inaccessible pockets, where the learners can not get required information in time. In this way the mobile devices will have limited effect on the learners of distance education.

C. Limited knowledge about the android technology, facebook/whatsapp and hotmail/gmail etc

There is a chance of distraction of teaching and learning through mobile devices due to limited knowledge of the disadvantaged sections about the android technology whatsapp, facebookgmail/hotmail .Thus mobile learning will have minimal effect on the learners of e-learning or distance learning.

D. Little expensive of the mobile technology

The mobile learning can be distracted due to little expensive of the mobile technology and the disadvantaged section of people cannot afford to buy that technology in order to avail the learning situation.

MOBILE LEARNING DIFFERENT FROM E-LEARNING

E-learning has been defined as dissemination of educational knowledge over the internet. It makes e-learning a subset of technology based training. It also incorporates a number of learning activities conducted on the internet, of which mobile learning is one part. According to Mostakhmin, Hosseini and Tuimala that mobile learning is simply as the natural evolution of e-learning which completes a missing component such as wireless feature or as new stage of distance and e-learning. Mobile learning is very often described as occupying a space within the e-learning space which is in turn a sub part of digital learning.

FEATURES OF MOBILE LEARNING

- a. Mobile learning can be initiated anywhere, anytime.
- b. It is instantaneous messaging.
- c. It does have no geographical boundaries or jurisdiction.
- d. It does require no travel time with wireless internet connectivity.

ADVANTAGES OF M-LEARNING

The use of mobile device in the field of distance education or e-learning for information, instruction, assessment, interaction and feedback for the learners of disadvantaged sections, which includes the housewives, school dropouts,

minorities and backward communities can be useful for its success. There is an ample scope for its expansion and adoption by the distance educational institutions for the complete digitalization of e-learning. Its success completely depends upon the willingness of the educational institutions, mobile learners and academic counselors. So all the three stake holders should equally participate in this joint venture and should create interest in them for use of mobile technology in the field of digital learning or e-learning. The areas where the mobile device can be used for learning are-

1. USE OF MOBILE FOR INFORMATION

Mobile device can be used for dissemination of information to the learners and the academic counselors. The information can help them to complete the task in time which will definitely fulfill the objectivity of e-learning or digital India concept of education. In the 21st century all most all the developed countries have already adopted and implemented the mobile technology in the field of distance education or e-learning which shows a very good sign for the spread of higher education. In India we have to adopt and implement in the similar fashion for the spread of higher education in the inaccessible pockets and having little or no access to the internet facility. This technology can have effective impact on the learners who are using mobile device for acquiring textual and contextual knowledge. The mobile technology can be used for information to the learners for fulfilling various purposes.

WhatsApp & Facebook on Mobile



Sms facility on Mobile

- a. For registration of courses
- b. For filling up exam forms
- c. For attending the practical classes and workshop/internship
- d. For attending counseling classes
- e. For submission of assignment
- f. For participating in the placement drive

2. USE OF MOBILE FOR INSTRUCTION

Mobile devices can be used for teaching tool for instruction of the distance learners. The instructor or academic counselor can instruct the learners to make use of this technology to resolve their learning difficulties. It can be very useful for both academic counselors as well as the distance learners. In the field of e-learning both stake holders have equal and equivocal role to play. The areas where the mobile can be used for instruction of the learners are

WhatsApp on Mobile



- a. E-learning materials available on the website can be download and used as and when required.
- b. Difficult words or phrases or paragraphs can be better explained with the help of mobile technology.
- c. Gmail/hotmail/yahoo can be used as a teaching tool for the distance learners. The learner can ask questions with regard to his or her lessons to the academic counselors through this technology and instantly the problems are solved and taken care of by the academic counselors. The academic counselor can instruct

the learner on the topic required for the learners. Through this method the digital learning or e-learning can be effective.

- d. Existing mobile technology can replace cumbersome resources such as textbooks, visual aids and presentation technology.
- e. Interactive and multimode technology allows students to engage and manipulate information.
- f. Mobile device features with WIFI capacities allow for on demand access to information.
- g. Access to classroom activities and information on mobile devices provides a continuum for learning inside and outside the classroom.
- h. The mobile devices facilitate online interaction between the instructor and the student and student to student.

3. USE OF MOBILE FOR ASSESSMENT

The mobile technology can be used for assessment of learner performance and the learner can be informed about his or her accomplishment in the assignment given by the academic counselors. In the distance education or e-learning it can be useful for assessing the learners' performance. The areas where the mobile technology will fulfill its objectives are

- a. The academic counselors can assign the work/task on line to the learners.
- b. The learners successfully submits the projects or assignments online which can be viewed , examined and comments can be given online for better performance and appreciating learners' performance on the assigned work.
- c. The academic counselors can give tips to the learners for preparing for examination.

4. USE OF MOBILE FOR INTERACTION

The whatsapp/facebook activated in the android mobile device can be used as a better technology for interaction between academic counselor and learners and student to student through the audio-visual mode and make it lively and interesting. The learners and teachers can share or discuss their subject matter or lessons through from any where, anytime.

- a. The academic counselor interacts with the learners and shares his/her experience with the learners and promote the learning online. The learner asks the academic counselor about his /her study difficulties.
- b. Through mobile technology interaction can be initiated between the students to students. Both of them can share their learning experience with each other.
- c. The interactive and multi-mode technology facilitates the learners to engage and manipulate information.

- d. Suggestive tips can be recorded through mobile device for its use in future reference of the learner.
- e. On line mode in the whatsapp helps the learner view the visuals and store it for future reference.

WhatsApp on Mobile



Face book, WhatsApp, gmail, yahoo &hotmail

5. USE OF MOBILE FOR FEEDBACK

Mobile is a technology which can be utilized for collecting feedback of the distance learners on instruction, assessment and student support services. For amending or correcting the system of e-learning or digital learning, the feedback from the learners or students on line is essential. The learners

submit feedback through sms/gmail/hotmail/yahoo/whatsapp/facebook to the educational institutions for improvement of the system required urgently in the e-learning or digital learning or distance learning. Basing on the feedback the educational institutions can undertake reformatory measures for promoting better support services and counseling classes online. The areas where the feedback of the learner can help the system of distance education to improve.

- a. Feedback on the academic counseling
- b. Learners' satisfaction on the assessment of assignment/project given by the academic counselors
- c. Feedback on support services rendered by the educational institutions.
- d. Feedback on the online examination
- e. Feedback on the instruction given by the academic counselors.
- f. Learners' satisfaction on the quality of e-learning materials available on the website of the educational institutions.

SCOPE FOR RESEARCH

In the 21st century India, mobile learning can be effective and blessing for the disadvantaged sections of learners which include the house wives, school dropouts, minorities and backward sections who can take advantage of the distance education. The mobile learning can create interest and enthusiasm among the disadvantaged learners towards teaching and learning. However, there is an ample scope of use of mobile technology in the field of distance education for information, interaction, instruction, assessment, feedback, etc for the disadvantaged sections of learners who are living in the inaccessible place where higher education has not stepped in. For empowering the disadvantaged, the mobile technology can be used as effective teaching and learning tool in the field of distance education or e-learning. Moreover, focus should be made on research work on effectiveness of m-learning in the field of distance education.

LEARNERS' PROFILE

Category wise data

Category	2013	2014	2015	2016	2017	2018
SC	10.8%	12.2%	13.5%	13.2%	12.5%	12%
ST	9.6%	11.6%	13.0%	12.2%	13.2%	13.5%
OBC	21.2%	32.3%	26.0%	27.5%	18.7%	19.6%
GEN	58.0%	52.0%	47.0%	42.9%	50.5%	54.9%

Gender wise data

Gender	2013	2014	2015	2016	2017	2018
Male	52.2%	53.1%	50.5%	49.2%	43.8%	48.1%
Female	47.5%	46.8%	50.6%	49.5%	56.3%	51.79%
Transgender	0.19%	0.07%	0.04%	0.03%	0.04%	0.42%

Employed/unemployed status of the learners

Status	2013	2014	2015	2016	2017	2018
Employed	17%	25%	28%	27%	22%	22.5%
Unemployed	83%	75%	72%	73%	78%	77.5%

Area wise distribution of the students

Area	2013	2014	2015	2016	2017	2018
Tribal	3.4%	2.5%	3.4%	4.3%	4.82%	5.92%
Rural	57.5%	65.8%	65.4%	70.8%	65.86%	62.09%
Urban	39.1%	31.7%	31.2%	24.8%	29.32%	31.99%

INCLUSIVE EDUCATION

Education of jail inmates

2013	2014	2015	2016	2017	2018
174	357	288	311	464	541

Year wise Enrolment of the Regional centre

2013	2014	2015	2016	2017	2018
20889	23462	28694	31280	31772	34136

Status of sms/mail/whatsapp/facebook/phone/

DURING ADMISSION SESSION

TYPE OF ACTIVITY	SMS	G.MAIL	WHATSAPP	FACEBOOK	OVER PHONE
FRESH ADMISSION	1272	3089	389	36	15,000
RE-REGISTRATION	1,38,997	5007	389	36	15,000
CHANGE OF ELECTIVE/MEDIUM	634	634	19	15	634

LEARNER SUPPORT CENTRE

TYPE OF ACTIVITY	SMS	G.MAIL	WHATSAPP	FACEBOOK	OVER PHONE
INDUCTION	6067	6067	17	17	6067
COUNSELLING	14,594	3065	20	20	3065
PRACTICAL/PROJECT	368	6005	07	07	6005
SUBMISSION OF ASSIGNMENT	14,733	7095	65	13	7095

TERM END EXAMINATION

TYPE OF ACTIVITY	SMS	G.MAIL	WHATSAPP	FACEBOOK	MOBILE PHONE
ENTRANCE	4200	687	267	15	4200
EXAM FORM FILL UP	27,892	2640	42	14	687
BED WORKSHOP	2492	246	42	16	246
SUBMISSION OF ASSIGNMENT	17,896	790	16	18	790
VIVA VOCE	240	240	08	06	336

DOWN LOAD HALL TICKET	28102	760	16	06	860
COLLECTION OF CERTIFICATE AT CONVOCATION	2606	670	135	09	756

STUDY MATERIALS

TYPE OF ACTIVITY	SMS	G.MAIL	WHATSAPP	FACEBOOK	MOBILE PHONE
RETURN BOOKS TO COLLECT	14892	1560	656	356	1560
DOWN LOAD SLM FROM E- GYANKOSH	17600	1686	456	348	3468
BOOKS AVAILABLE AT REGIONAL CENTRE	456	58	24	15	456

The above data of the learners can be analysed in a perspective way so that the outcome will be effective and useful for the institution to implement the innovative idea in ODL for better future. As the country is moving towards digital transformation at the same the learners and the institutions will take it in a positive manner to adopt it for their success. For example, thousands of learners including the disadvantaged learners are using this plat form of mobile technology to have information, analysis, interaction, discussion, and evaluation for learning purposes. In fact the Regional centre, Bhubaneswar is using media related technology like learning through mobile to make it more effective and learners friendly. In the analysis, it can be stated that more and more technological intervention can be utilized for making the Open and Distance learning a robust and student friendly. The above data of the regional centre say that the learners, specially the disadvantaged section of the society could receive all kind of information regarding academic counseling, examination, assessment and evaluation, study materials, guidance, inputs, placement, etc.

CONCLUSION

In the conclusion it can be derived that m-learning is a convenient form of learning which can be accessible from virtually anywhere. Sharing is almost instantaneous among everyone using the same content which turn into

reception of instant feedback and tips. M-learning also brings portability by replacing books and notes with small devices filled with tailored learning. Mobile learning is the delivery of learning, education or learning support on mobile phones. E-learning has provided the ability for traditional learning to break out of the classroom setting and for students to learn at home. Mobile learning has enhanced upon e-learning by taking it a step further and allowing students to learn virtually anywhere a mobile signal is available. New mobile technology is playing a large role in redefining the way learners receive information. The recent advances in mobile technology are changing the primary purpose of mobile devices from making or receiving calls to retrieving the latest information on any subject. The 21st century is the period of excitement in mobile learning, where education usher in a new era of technologies that have gone into making learning accessible to the people. The convergence of mobile information and enabling technologies has tremendously influenced the users interact with information on a daily and immediate basis. Moreover, the use of m-device can facilitate the disadvantaged learners of distance education living in the inaccessible place. In fact, they enjoy teaching and learning and get the maximum benefit out of this technology.

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EXTERNAL LINKS

- *How to increase the effectiveness of your mobile learning strategy* (<https://elearningindustry.com/increase-the-effectiveness-of-your-mobile-learning>)
- *Mobile learning as the future of learning* (<https://elearningindustry.com/mlearning-the-way-of-learning-tomorrow>)

KEY WORDS AND PHRASES

Mobile, e-learning, google, http, distance learning, whatsapp, hotmail, gmail, facebook, float learning, yahoo, sms, internet, smart phone, m-device, digital learning, wechat, distance, education, disadvantaged, learners, instruction, assessment, feedback, student support services.