

USE OF UGC GUIDELINES FOR E-SKILLS DEVELOPMENT TO DEVELOP E-CONTENT PACKAGE FOR STUDENT-TEACHERS OF B.ED. COURSE

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Abstract :

The present paper is a research paper which describes the process of development of e-content by using guidelines given by UGC India. The e-content package was developed by the researcher to acquire the e-skills among the student teachers of B.Ed. course of Savitribai Phule Pune University. The guidelines given by UGC were used by the researcher to develop the particular e-content package.

The process of the development of the e-content package has been stated in the paper. Broader steps and phases have been described in the light of UGC guidelines.

The e-content package had two aspects i.e. knowledge and skill of the selected ICT skills. The theory and practical aspects both were included in the package. The e-content package was based on six e-skills i.e. smart browsing, email, chat, blog, wiki and social networking.

The e-content package consisted of learning material to inculcate skills and to achieve knowledge regarding each e-skill. The e-content was used for Ph.D. research by the researcher.

Keywords : *e-content development, development of learning material, ICT in Education, e-skill development, UGC guidelines of e-content development*

1. Introduction :

ICT is key component in today's education system for Competency Building and Employability. Smart classroom, e-learning, online courses, blended learning etc. many concepts has been emerged recently in education to build competencies. E-content is the essential mean in all these concepts. e-content plays important role in e-learning.

University Grant commission (UGC) of India, published guideline to develop e-content higher education it was a promotion of ICT use in education. It was also emphasis the use of technology in Education. UGC launched schemes to provide grants for e-content development.

UNESCO has taken initiative to promote education on this mission. National skill development of corporation (NSDC) is working with universities, UGC and AICTE for skills development is higher education. NSDC in focusing on various skills including ICT related skills.

In Europe there are many organizations work on e-skill development European commission and world skill organization are two of them. Organization for economic co operation and development (OECD) also promotes ICT skills. E-skill organization focuses on e-skill training.

Skill development is a key aspect in world education. Instead of traditional and theoretical education skill development has become the focus of the higher education.

2. Rationale of the Research:

ICT is practical based subject. There is a theory component included in the syllabus. Mainly it is taught as a theory in teacher education, so student-teacher get knowledge of the ICT tools but not skills to operate. To make ICT subject practical oriented e-content of it should be developed.

Hence researcher decided to develop e-content package which will help student-teachers to get skills along with knowledge. The e-content package can be useful for online course mode, blended learning mode, supervised learning mode or self learning mode.

3. Objectives of the Research :

1. To develop the e-content package with the UGC guidelines for e-skills development of student-teachers of B.Ed. course

4. Definition :

i) e-content :

Conceptual Definition

‘Digital content that can be transmitted over computer.’ -Computer Desktop Encyclopedia.

Operational Definition

The content developed by the researcher in the form of application software compatible to run on Computer has been called e-content.

ii) e- skills

Conceptual Definition

‘E-skills broadly refer to the ability to develop and use ICT to adequately participate in an environment increasingly dominated by access to electronically-enabled information and a well-developed ability to synthesis this into effective and relevant knowledge’. - Ikamva National e-skills Institute, South Africa.

Operational Definition :

e-skill is the group sub-skills which enables user to operate the facilities of the following i.e. smart browsing, email, chat, blog, wiki and social networking.

iii) Student-teacher

Conceptual Definitions

‘A college or university student who teaches school under the supervision of an experienced teacher as a requirement for a degree in education.’ - <https://www.collinsdictionary.com/>

Operational Definition :

Student-teachers who are admitted in B. Ed. (General) Course of Savitribai Phule, Pune University.

iv) UGC guidelines :

Conceptual Definitions

‘University Grants Commission of India gives the directives about the Conduct of Higher Education.’

Operational Definition :

UGC India guidelines mean e-content development guidelines given by UGC in 2007-2012 Plan.

viii) B.Ed. Course –

Conceptual Definitions:

‘The Bachelor of Education Programme (B.Ed.) is a professional course that prepares teachers for upper primary (Classes VI-VIII), secondary level (classes IX-X) and Higher secondary level (classes XI-XII).’ – Savitribai Phule Pune University, B.Ed. syllabus 2014 pattern.

Operational Definition:

B.Ed. is the Bachelor of Education B.Ed. (General) Course of Savitribai Phule Pune University.

5. Scope :

▪ The scope of the study is to English medium student teachers of B.Ed. course of Savitribai Phule Pune University.

6. Delimitations :

- The study is delimited to English Medium B.Ed. colleges affiliated to Savitribai Phule Pune University.
- E-skills are delimited to following sub-skills of the e- facilities of eskills i.e. smart browsing, email, chat, blog and social networking.

7. Research Methodology:

Product Method has been used for the present research. The researcher considered the guidelines for e-content development given by UGC to develop the e-content package. UGC published the guidelines ‘Guidelines for e-content development (2007-2012). The UGC e-content scheme aims to develop high quality e-content as well as expertise for generating such content over the long term. (UGC 2007. Pg 3)

7.1. Objective of the Scheme:

- a) Promote generation of e-content in all subjects.
- b) Develop teachers and experts resources in e-content creation.
- c) Make available the e-content to teachers and students through various delivery modes for formal and non formal education, for supplementing and complementing the process for teaching and learning in higher education

7.2. Use of UGC guidelines for the development of the e-content package:

UGC has given seven principles in the guidelines as shown in the *figure 1*. The researcher has been considered those principles to design e-content package for the study.

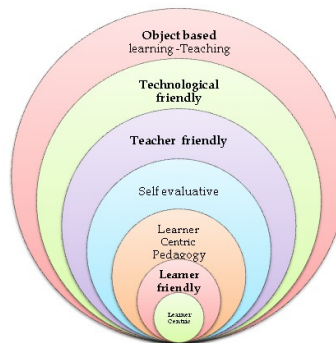


Figure 1 : Principles of e-content development by UGC

a) Technological friendly: The e-content package which was developed for the study was technologically friendly. It needs only 512 MB RAM which is very less as compared to today’s configuration of 2 GB RAM. Technology has been designed as indicated in the *figure 2* below.

- It can be run from Pen Drive, DVD or HDD
- Less RAM required
- No other software for **plug-in** required to run the package.

Content	Media	Technology
<ul style="list-style-type: none"> • Smart browse • email • Chat • Blog • Wiki • Social networking 	<ul style="list-style-type: none"> • text • images • animation • video • screen reader • graphics 	<ul style="list-style-type: none"> • Flash • Windows

Figure 2 : Technology used in e-content package

b) **Learner friendly:** The e-content package is easy to navigate to users. When package is opened the home page appears which has the list of six modules. How to use demo video has been include in the e-content package. After a single left click learner can navigate the module. User can use next, back, play, pause commands by single clicks on respective button. Simple icons and tool tips has been provided to make e-content package learner friendly.

c) **Learner centric:** UGC expected the-content should be useful in self instructional mode. The e-content package is prepared in developed to be used in self instructional mode, icons, tool tips and instructions has been programmed in the package. Learner can learn as her own pace of learning. The e-content had been selected on the basis of educational usefulness of the e-skills in education.

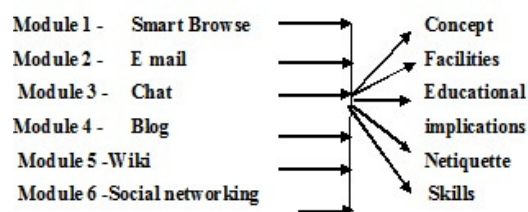
d) **Teacher friendly:** The e-content package includes video tutorial and text with images, which can be also suitable to present in a class lesson and lab lesson as well. The educational implication section is required more discussion with the learners where teachers can generate more points. Teacher has to play a role of facilitator here rather than a teacher. She needs to guide whenever learner get stucked.

e) **Employing learner centric pedagogy:**

The e-content is based on i) Law of Linear Programming and Learning Material ii) Law of Auto Learning iii) Law of chain learning iv) Law of Positive Negative and Positive reinforcement from *B. F. Skinners Operate Learning Theory*, and i) Learners aspect Instructional design ii) Ascending learning iii) Latent Competencies iv) Cognitive-skills from *Gagnes Task Analysis and Instructional Design Theory* which provided learner centric pedagogical and psychological foundation to the e-content package. Since the focus of the paper is on UGC guidelines the theoretical base of the e-content has not described.

f) **Self evaluative:** The e-content package has self learning mode, so one can own learning of skill by using the specific facility immediately. User can try a particular e-skill online immediately and can evaluate her skill. The e-content package has the facility to minimize and maximize, to skip, to repeat and to pause a particular module. If she is not sure about own acquirement of skill, she can access e-content one more time.

g) **Object based learning / Teaching:** The e-content package has been presented in module form. Each module can be considered as a separate object. Each e-skill has separate learning module i.e. smart browse, email, chat, blog, wiki and social networking as shown in figure 3. Student-teacher can learn any module first. The learning outcomes of each module precisely mentioned so each object can be learnt precisely.



modules in e-content package

7.3. Distinctive Features of the e-content Package:

- The language of the e-content package is English.
- It's a skill based package. Acquirement of the e-skills has been focused. Each e-skill has been assigned in a separate module.
- Each e-skill can be accessed separately as per requirement of a learner.

- Educational implication of each e-skill has been given in the package, so student-teachers would enable to make use of those e-skills for educational purpose.
- Netiquettes related to e-skills are provided in the e-content package in the relevant module, which would help learners to make use of the e-skills wisely and safely.

8. Findings:

The e-content package was developed based on the UGC guidelines of e-content development i.e. Learner centric, learner friendly, learner centric pedagogy, self evaluative, teacher friendly, technology friendly, object based.

▪ Final Product : DVD with User Guide

- Size : 500 MB
- RAM Required : 512 MB
- Software Platform : Flash
- Hardware : Process 1.0 GHz
- OS Platform : Windows

9. Discussion of Findings:

The e-content package was developed by the researcher for research of Ph.D. degree. Further the effectiveness of the package was tested on the sample of student-teachers of B.Ed. course 2014-15 of Savitribai Phule Pune University, Pune. The data analysis was done with the statistical tool i.e. MANOVA and found each module effective to acquire the e-skills. The guidelines provided by UGC regarding e-content development were proven effective for the learning.

The e-content package developed as per the guidelines of UGC, can be useful for online course mode, blended learning mode, supervised learning mode or self learning mode. It can be used as a part of any course where student can learn e-skills one by one as per his/her requirement. Such e-content can be useful on the online platform like MOOC and Mobile App too where learners have freedom to learn as per their convenience.

UNESCO, European Union, Organization of Economical Cooperation and Development (OECD), World Skill Organization etc. many organizations are working on the e-skill development on the international level. Even in India many schemes have been initiated by the government e.g. *Swayam*, National Skill Development Corporation, National Skill Development Program, and Skill Development Ministry etc. The present research work may contribute in the campaign of skill development in our country. It showed how the guidelines of UGC can be utilized for e-skill development.

The e-content package is proven effective to acquire e-skills. Such a research is useful to contribute in the campaign of skill development.

10. Conclusion :

The developed e-content is very useful for the learners to achieve the knowledge and skills about the e-skill i.e. smart browse, email, chat, blog, wiki and social networking.

The present paper has its significant in two aspects; one is how to develop effective e-content with the consideration of UGC guidelines and second; how skill development can be achieved by using e-content.

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