

A Study on Importance and Effectiveness of Cognitive E-Learning in Distance Education of Rural Areas

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Abstract: The main focus of distance education is the instructional system design and technology. It aims to deliver education to the students who are not physically present in a traditional classroom. The courses offered in distance education helps the rural people to inculcate in them the basic understanding in the domain of rural development which in turn enhance and enrich their career scope and quality of life. Cognitive study is to judge the human nature by understanding their thought processes. When we apply cognitive approach to education, we actually focus on the understanding of information and its concepts.

Keywords – Cognitivism, Cognitive e-learning, Distance education, Learning media, Rural areas

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I. Introduction

In distance education, the learning media, learning medium and the target audience's cognitive level cannot be judged properly. It is a process to create and to provide learning when the classroom and the learners are separated by distance and time or both. In other words, this learning is the process of creating an educational opportunity for the learners to fulfill their needs outside the campus. This newborn and extremely emerging technology is becoming widely used in many universities and institutions worldwide. With the recent trend of technological advancement, this distance learning is becoming more recognized for its popularity, neediness as well as its usefulness [1]. Also it is capable for seeking attention and communication with learners nationally or internationally. The rural distance education program is capable to analyze the need of the rural people and provide them the good quality of education, although most of them are not capable to access the latest technologies.

From earlier days, rural education is being suffering from the unavailability of proper guidance or resources. Resources can be like teacher, material or process. Most of the time, they cannot manage their time for completing education as due to financial problem or they have very little scope. Although distance education is much popular in our current educational system but most of the rural people are still unable to access the distance education due to lack of infrastructure or lack of proper guidance [2][3].

To accommodate the ease of learning, we need to judge the cognitive level of learners so that according to their cognitive level we can categorize them from high to low and also based on this level, learning materials can also be selected. Cognitive study relates to the ability of learning, thinking, processing and remembering. It focuses on the understanding of information and concepts [4]. It resolves learning problems of a learner. For example: In order to make a judgment about something which is based on received information and that the brain processes [5].

II. Importance Of Distance Learning

Travel expenditure and time can be saved for rural area learning students. The content of course materials can be updated timely for better understanding. Efficiency of information delivery is also high. Distance learning is cost effective and can turn production of content into a durable learning look that does not require much infrastructure. Study materials can be easily packaged in "just-in-time" format. It is flexible and also convenient [6][7]. Distance learning program (web based distance learning program) can be accessed anytime from anywhere as long as there is a computer connected to the internet. It can also be accessed via smart phones. It allows students to engage in the discussion. The community is good for information exchange. It can adapt new technologies and environments with the rapid changes in technology. It can reach underserved populations of learners those who live far away and those who cannot attend any institution that offers the educational services they desire [8][9][10].

III. Cognitivism – Innovative Learning

The Cognitivism is a learning process that mostly focuses on the processes which are involved in learning rather than on the observed behavior. It focuses mainly on the internal processes and connections that take place during the learning process. A cognitivist proposes that learners are the active participants in any learning process. They use various techniques to process and construct their understanding of the content to which their minds are exposed. It is often not easy to understand and to identify the knowledge that already exists in the minds of learners. Most of the times, the knowledge and experience of the students are too complex that is to be identified thoroughly [11]. An environment can be setup where there should be lot of tools where learners can develop an understanding. A teacher or instructor can ask questions which in turn help students refine their thinking process and recognize where they may be wrong. Failure may be considered as a good thing because it helps learners to realize that they need to learn more and there is a gap in their understanding. Role of the instructor is to monitor their progress and asking lots of questions in order to confirm better understanding.

IV. Discussion

The feasibility of implementation and enhancement of the rural distance education can be done with the help of courses which helps the rural people to incorporate in them the basic understanding of the domain of rural development which in turn enhance their quality of life and scope of employment. The enhanced and enriched knowledge helps people to tackle the global challenges in a better way. These courses help them develop a different perspective and outlook towards their society, development issues, attitudes toward the poor and the down trodden.

A well-educated and skilled population equipped with knowledge not only helps drive the socio-economic development but it also establishes personal growth. Rural areas account for a larger part of the geographical area in country like India. Infrastructure plays a vital role for not just the country's economic growth but also it brings progress in human development [12]. Provisioning of basic infrastructure facilities for this large rural area has been a major challenge. Therefore, the gaps in rural infrastructure need to be addressed properly in order to achieve redistributive growth and alleviate poverty from the country.

It is good to analyze the cognitive level of learners first and then to provide guidance and materials according to their merit. For the ease of learning, we need to judge the cognitive level of learners so that according to their cognitive level we can categorize them and based on this level, learning materials can also be selected [7]. By surveying the area, the best media and medium to deliver the distance learning program can be determined. The parameters which should be considered in order to get good result are as follows: geographical location, density of population, no. of schools (Private and Government), percentage of literacy, and availability of internet, availability of electricity and communication language.

V. Conclusion

In distance education of rural area, face to face interaction is not possible frequently that is why traditional classroom type teaching methodology is not possible. It is one of the required essentials in order to achieve success of teaching program. In case of distance learning, this traditional classroom type teaching procedure is possible via video conferencing, VoIP, etc. But this kind of techniques violet asynchronous time and space. In rural areas, it is difficult to arrange video conferencing, VoIP, etc techniques. So, to make virtual interaction instead of traditional interaction it is necessary to judge proper cognitive level so that proper study materials can be provided as per their merits.

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