# Comparison of Study Material and its Approaches Used in Formal and Distance Education

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#### Abstract

Study material is a compulsory component of distance as well as formal system of education. Effective education process is impossible unless using effective study materials for learners. Study material and teaching techniques used in formal and distance education are different in nature due to difference of demands of modes. This study was designed on "Comparison of study material and its approaches used in formal and distance education". The objectives of this study were; to explore the deficiency in material written for formal and distance education, to identify the approaches used in formal and distance education and suggest the possible measures for the improvement of material and approaches used in formal and distance education. The population of study was students and teachers/tutors of Allama Iqbal Open University (AIOU) and University of Education (UE). For distance education Rawalpindi and Lahore Region were selected whereas for Formal system Lahore and Okara Region were selected. Questionnaires on five points rating scale were drafted for students and teachers/tutors. Their responses were recorded and analysis of data was made through mean. The main findings of study were the study material of both systems was written by competent authority. The format of study material of both systems of education was in a sequence. Discussion and lecture methods were used as regard to distance education. TV and radio programmes were prepared and presented at proper time from AIOU. However, there were some deficiencies found in both systems. i.e. the study material in AIOU has built in activities whereas in the formal systems built in activities are not included in their material. Teleconference facilities were not used in both systems. Thus, it is recommended that teleconference facilities may be provided in both system and built-in activities may be given in formal system of education.

Keywords: Study materials, Formal education, Distance education, Approaches

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# Introduction

The study material used for formal and distance education are different. In formal education teacher is present in the classroom and explains the study material but in distance education the tutors and the learners are not physically present at the same place so the student has to read and understand the study material at their own pace. Thus, the study material for distance education is self-explanatory which is supported by suitable illustrations and examples.

Study material is the source given to group of students or class or in a set of instructions. It may be textbook, a representative source for the students, teaching in any school or an educational institution. In this regard, Gijselaers, Tempelaar, Keizer, Blommaert, Eugene Bernard, and Kaspe (2013) explain that the function of formal education is mainly filled by the teacher but in distance education there is high demand in designing and developing material keeping in view the learning objectives, application of knowledge and the characteristics of education.

According to Popov (2003) the courses of distance education are associated with the correspondence whereas the interaction between teacher and students take place through the delivery of study material. However, in distance education there may be assignments, face to face meeting, telephone guidance, interaction between teacher and students through web and students to students' interaction also take place in the same manner.

Different approaches are being used in formal and distance education according to need of the learners. In formal education these approaches are lecture method, demonstration, questions and answers technique, trip to different places and role play in distance education. These approaches are applied through T.V. and Radio programs, tutorial workshops and in seminars.

Maidment and Egan (2009) stated that in formal education focus is made on discussion, demonstration, practice on micro-skills and debates on a particular topic are being used. Students can also do their work in pair or group during the class session and this can also be adopted for online learning through distance education.

According to Iqbal (2014, p.394) various factors are contributing in teaching learning process. These factors are age of students, nature of the content, available resources and expertise who used teaching methods. Age of students is one of the key factors in teaching. In early age students learn by doing, so activity method is suitable for them. While adults learn by listening, discussing and sharing of ideas. Thus, lecture and discussion methods are suitable for them. The nature of the content is another factor, for example teaching science contents, demonstration or problems solving method are used instead of discussion, lecture method or question-answer technique.

If class size is large then lecture method and project method are appropriate while discussion method is good for small class or group of students and finally those sources are used in teaching learning process which are available in the existing educational institutions. However, teaching methodology may suffer with low-budget and poorly management. Iqbal (2014, p.394) further adds that:

There are some principles in selecting teaching method. The teaching method creates maximizing opportunities to achieve multiple goals, motivate students in accordance with the objectives of the course, facilities, equipment and available resources are used. A particular teaching method maximize the opportunities of learning to attain numerous goals. The selection of teaching method can be developed during learning. It is concern with what extent that particular teaching method is applicable for learners and the delivery of that lesson that fit the teaching purpose.

A brief explanation about the approaches of teaching in formal and distance education has given below.

## Lecturer Method

The common approach in formal education system is lecture method. It is convenient for larger classroom sizes. Lecturer method emphasizes on presentation of the content with explanation. Many lectures are delivered through combination of visual aids, such as slideshow, PPT showing an image etc. Whiteboards or chalkboards are also used for writing important points on the lesson. According to Paris (2014, p.1)

The lecturer method is just one of several teaching methods, though in schools it is usually considered the primary one. It is not surprising either. The lecture method is convenient and usually makes the most sense, especially with larger classroom sizes. This is why lecturing is the standard for most college courses, when there can be several hundred students in the classroom at once; lecturing lets professors address the most people at once, in the most general manner, while still conveying the information that he or she feels is most important according to the lesson plan.

This method concentrates on cognitive development and delivers large content in shortest possible time. Teachers can employ their verbal communication and competency and their personality influences on the learner/s personality.

#### **Discussion Method**

Discussion method is applied in formal system of education, small groups and assembled to communicate with each other by means of speaking and listening. The group members have different influence over one another through their behavior. This

method based on the principles of active participation, freedom of work and provides equal opportunities to answer the relevant questions. This method has three phases, beginning phase, middle phase and the end phase. Discussion method helps students to incorporate and integrate information which they have acquired from lecture. It is effective in the involvement of the huge class. It is very useful in social sciences because it is an ideal way to demonstrate the social, cultural and political problem of the students.

Through this method participants may dominate over the others. In this regard Wilkinson, (2009) states that discussion methods are presented in a variety of forms for the creation of students thinking, learning, problem solving and understanding.

## Demonstration Method

Demonstration method is applied in formal system of education particularly in science subjects. Teacher performs and explains the theme or assignment before students. Demonstration method support the learners in learning process through watching practicals and involves in learning. According to Ekeyil (2013) demonstration method is that type of education in which teacher acts as principal actor while the learners watch with great intention.

This method is used in skill development among students. It attracts the attention of students but does not allow for discussion. It also requires different resources like audio-visual aids.

## Heuristics Method

This method is used for self-learning of students. In this method, a problem is placed before the learners and they attempt to seek solutions by themselves with full freedom of working and thinking. It develops scientific attitude through observation and logical and imaginative thinking among the learner. The teacher provides guidance to individual learners. This method is time consuming so not suitable for large classes. According to Kuhlemann (2012, p.1-2).

Especially when students employ unusual strategies of solving a task students' thinking is not always directly obvious and easily comprehensible. There is a need for teachers to use heuristic strategies to reconstruct possible thinking processes with the aim to understand the students' work.

## **Project Method**

Project method is an approach used in both formal and distance education. Project method is used to remove problems involved in the completion of natural setting. According to Portyanskaya (2009, p.133) "project method like on other method gives an opportunity to wisely combination the theory and practical use of knowledge in real life". Project Method develops insight of students and imparts in new knowledge by linking according to existing situations. It provides an opportunity for work gain experience, and creates thinking among students.

# Activity Method

Activity approach is used in formal education mode. Activity creates such environment in which learners perform certain activity and get experience. According to Hackathorna et.al (2011, p. 44) "In-class activities are usually a technique that involves all of the students in the class, either working in groups or alone, to solve a problem or puzzle".

# Problem-Solving Method

Problem-solving approach is applied in both formal and distance education. Problem-solving method develops scientific attitude and skills in student. This is capable to create self-dependent, self-reliant and self-confident. According to Ali and Akhter (2010, p.114) "The most important achievement of a teacher is to help his/her students along the road to independent learning. In problem based learning, teacher acts just as facilitator, rather than a primary source of information". Through this method new ideas generate, discovery takes place and students learn different facts by themselves.

# Question-Answer Method

In formal education system this approach is used to share maximum knowledge within learner and teacher. It makes possible for students to discover topic of their interest, opinions and ideas. In this method teacher present subject-matter and learner recognizes the truth, and identify it. In this regard Gangel (2015, p.7) states "question and answer teaching give the student the opportunity to reflect his inquiries and needs for further information. At the same time, by soliciting answers to key questions the teacher gains some insight into the class progress".

It enhances the encouragement, motivation, and activeness of students by exploring the behaviors of students. It strengthens the learning process by linking previous knowledge with new one. Moreover, this method develops thinking and analyses the abilities of the learners by evaluating the effectiveness of the teaching learning activities.

# Role Playing or Dramatization

Role play is a part of drama or poetry. In this method students have to play their role according to script. It is an effective method for formal learning by teaching historical stories and events. These events cannot be repeated but can only dramatize by role-playing.

According to Teed (2012) perspective teacher has to teach a small lesson to colleagues by assuming them as student of another class. Every learner has to deliver a lesson in rotation by discussion and suggestions are given for the modification of lesson.

#### Radio and Television

Radio is an oldest approach used to distance education for students living far flung areas. This technique is used worldwide through open universities. According to Karim, et.al (2001, p.153):

Distance learning, by combining the radio with other media, particular with the print materials and occasional personal contact sessions, attempts to replace both the teacher and the institution. Radio is more convenient and cheapest way to provide distance education to the various sections of the population.

Television broadcast is another effective approach to disseminate knowledge. Television is a complex medium because it is an audio-visual process that enables the student to cover their relevant material at their own pace. This approach motivates students towards their studies. Television is a power full medium used in distance education. It depends upon the quality of materials and the skill that are used in delivering lectures. However, it is to improve learning efficiency. In this regard Rashid and Rashid (2010, p.178) state:

The Allama Iqbal Open University, being a distance education institution, rely heavily on all varieties of available media to reach its students in an effective manner. The main components of its multimedia package include: Radio and television broadcasts generally relate to the study materials of the package. Satellite transmission: AIOU is putting on air its educational media material on PTV-2 which is beaming out its transmission through satellite to more than 45 countries.

According to Chandar and Sharma (2003, p.145)

Indira Gandhi National Open University has been allotted 40 FM radio stations from which to broadcast educational programmes for the benefit of students and general public in India. These FM Radio stations, delivered through the Gyan Vani Network, cater to learners seeking to gain knowledge in the areas of basic, primary, higher and extension education. Radio programming covers various subject areas. It is anticipated that the opening of India's airwaves will prove beneficial to the nation's general population, thus fostering the democratizing principles of empowerment, advocacy, and community participation. This study examines the results of a survey conducted to obtain feedback from a representative sample of the Gyan Vani network's projected audience.

## Printed Material

In distance education tutoring is made through printed material, open correspondent method is used. In which printed material is delivered at the door step of the learners. This material is prepared for self-study, self-pacing and self-learning, because students are at par from educational institutions and connection is made through printed material. Visual tapes and Audio cassettes are also used as a supplement printed material where necessary. According to Martin, et.al (1996, p.77):

In a distance education content there is hardly any face to face contact between students and teachers/tutors, so the learning materials have to be sufficiently supportive. Therefore, an essential part of self-study material consists of embedded support devices (ESD). The central role of embedded support in distance education can be illustrated by the fact that learning materials in this context consists of about 40% of ESD.

# **Programmed Instruction**

Programmed Instruction is useful approach in distance learning. In this method, learning material is divided into many sections. The lesson is delivered through a teaching device or programmed textbooks. According to Pappas (2014, p.41) "As an educational technique, it is characterized by self-paced, self-administered instruction, which is presented in a logical sequence and with multiple content repetitions" Each unit or step of programmed instruction contains individualized instruction. It is not consisted of only information but terminated with a question.

## Computer-Assisted Instruction (CAI)

This approach is particularly used in distance learning. In Computer-Assisted Instruction presents programme lessons and interact with the learners directly. The computer-based programmed lesson engages the learners in a dialogue while delivering different information. According to Willis (2013, p.17) Computer-Assisted Instruction (CAI) are considered as a self-contained teaching machine that present discrete lessons to achieve specific educational objectives. There are several CAI modes, including: drill and practice, tutorial, simulations, games, and problem-solving, etc.

CAI motivates the learners through various features like colour, music and animated graphics add that reality and appeal to drilling exercises, laboratory activities and simulations.

# Teleconferencing/Videoconferencing/Interactive Video

Teleconferencing is an electronic means which bring the number of two, three and four or more easily from different locations to discuss and share two-way communication by using electronic boards, computer graphics, radio, satellite and videotext etc. The use of these approaches has makes distance education more feasible and approachable for everyone, Bidjerano., Wilkinson (2008, p.117) states:

Video Conferencing as implemented for the purposes of classroom instruction, bridges physical distances and provides access to distant educational resources. Among the acknowledged advantages of videoconferencing over traditional classroom instruction are the opportunities provided to students to have authentic experiences through interaction with experts, and to acquire knowledge in a dynamic and visual fashion that is rooted in dialogue and discussion. This approach is more beneficial for remote learners. Interactive video is an effective method of delivering information to remote distance educational settings. It supports two-way video and audio communication between multiple locations.

## Tutorial Workshops

In tutorial workshops tutor helps students through guidelines which are already prepared by the tutor. His role binds a link between the institution and learners. Tutor helps learners in an effective learning. According to Bukhari (1997, p.2).

Distance education is, as yet, an emerging concept and it is placed in the category of a developing discipline. The staff of an Open University needs to be provided training in various aspects of distance education; tutorial support being an area of great significance in this respect.

In a study, Akhter and Akbar (2015) explored that, tutorials and workshops are held mostly in buildings shared with formal institutions. These are held in afternoon timings because of non-availability of place in morning and because of working distance learners.

## Seminars

Seminars are held for exchange of information and ideas. The participants share and exchange their ideas, experiences, knowledge and adopt suitable strategy for their learning. Seminars also open the way of research, add new programmes, and evaluate the methods. These are useful for the adoption of new advanced technologies. These technologies reduce the educational costs in distance education as compare to formal education. It also cut the residential and transportation cost, which is a part of formal education on daily basis. Advancement in technologies made it convenient to handle large community of far flung and remote area through distance education. Use of video and computer conferencing is also highlighted in the seminars held for distance education. In this regard Robinson (1997, p.125) states: Distance education for teacher training has potential advantages. It can provide the means of slide-stepping the slowness and dilution factor of the cascade approach by putting 'information about curricula and teaching approaches directly into the hands of individual and by cutting down the time between learning about new teaching practices and trying them out in the classroom.

The above literature explains that nature of formal and distance education modes demands academicians to adopt different strategies in selection of teaching materials, methods for dissemination of materials and learning experiences to students. Distance education that is a new mode of education has popularity due to its benefits. Mostly, distance education institutions get assistance of formal teachers because of lack of experts in distance education. Researches indicate that; distance education institutions face difficulty to hire experts in distance teaching process. Therefore, role of tutors, learners and institutions is mostly criticized by critics (Akhter, 2015). This situation requires to educate the personnel involved in distance education to be clear about the instructional demands in open and distance education. Infact, training of personnel involved in distance education is required but Pakistan still is far behind. So, Present study on "Comparison of study material and its approaches used in formal and distance education" was conducted. The objectives of study were;

- 1. Identify the teaching approaches used in formal and distance education.
- 2. Explore the deficiency in material written for formal and distance education.
- 3. Suggest possible measures for the improvement of material and approaches used in formal and distance education.

# Methodology

This study was descriptive in nature. Survey method was used to carry out the study. According to Schwab (1999) survey method is comparatively simple research. It finds out the issues and problems involved in research and to investigate the relevant variables, whereas Gay (2005) points out that survey is an attempt to collect data from the respondents, which are taken from the population with respect to variables used in the research.

## Population of the Study

This research was delimited to; 1). Rawalpindi and Lahore regions of AIOU and Lahore and Okara campuses of UE. Autumn 2012 for AIOU as distance education system and 2012-13 academic year of University of Education as Formal system of Education. Therefore, the population of this study comprised of 1425 students of Allama Iqbal Open University and 450 students of university of Education. Likewise, 42 tutors of AIOU and 22 teachers of University of Education.

# Sample of the Study

Three hundred and fifty students and 22 teachers from each system of Education were taken as sample. These samples were further divided according to ratios of students and teachers of the respective universities.

# Research Tools of the Study

This study was designed by drafting 2 questionnaires (for students and teachers/tutors) at five points Likert Scale. In this regard Rovai, Baker and Ponton (2013, p.96) state that people ideas are being change with the passage of time and variation among their ideas depends upon their potential responses. i.e. strongly agree, agree, uncertain, disagree and strongly disagree. The participants check the place on the scale which reflects their feelings.

# Validity and Reliability of Tools

After development of research tools, content validity was checked by five experts and pilot tested by sample of 10 students. After evaluating suggestions of experts and difficulties of sample in filling questionnaire, required amendments in tool were made. For checking of reliability Cronbach' Alpha was computed. Value of r was 0.79 that identified good level of internal consistency.

## Data Collection and Analysis

The questionnaires were sent to the sample of universities through pre-paid mail, email and where necessary personal contact was made. For maximum responses reminders were also sent to the sample member of study. The collected data was analyzed by using percent of score and mean comparisons.

# **Findings of the Study**

Findings were drawn from responses of students and teachers. Fifty percent samples were from distance education and same number was from formal mode universities. Findings of questionnaire for students about the material and approaches stated that 76.16% respondents of formal education system and 74.17% respondents of distance system agreed that study material involve students into studies. 74.84% respondents of formal system of education and 77.48% respondents of distance education system were agreed that study material was written by competent authority. Similarly, 72.52% respondents of formal education system and 70.53% respondents of distance system agreed that study material is logically sequenced.

In regard to approaches, 71.85% respondents (students) of formal education system and 82.12% respondents of distance system agreed that teachers/tutors encouraged discussion method in their teaching. Similarly, 68.21% respondents of formal education system and 91.72% respondents of distance system agreed that workshops provide interaction between students and teacher. Moreover, 68.21% respondents of formal education system and 71.52% respondents of distance system agreed that

sufficient time was given to complete home assignments while 63.58% respondents of formal education system and 75.50% respondents of distance system agreed that teachers used lecture methods in the class.

Findings also explore demonstration method is used in formal education system particularly for practical purpose whereas there is lack of using this method in distance system of education. However, TV programs are presented to fill this deficiency. Radio broadcast is not being used in formal system of education whereas it is used up to some extent in distance education system.

Findings of questionnaire for tutors/teachers explore that 95.00% respondents of formal education system and 90% respondents of distance system agreed that study material received on time. Similarly, 85% respondents of both formal and distance education system agreed that study material is written by competent authority. Moreover, 65.00% respondents of formal education system and 85.00% respondents of distance system agreed that study material contains self-assessment exercise.

About the teaching method, 95 % respondents of formal education system and 80% respondents of distance system agreed that lecture method is used in teaching learning process. 85% respondents of formal education system 65% respondents of distance system agreed that discussion method provides interaction between students and teacher.

However, a contradiction was found between the approaches used in both systems of education. 25% respondents of formal system of education and 75% respondents of distance education system agreed that duration of workshop/ teaching in class is appropriate. But, 15% respondents of formal education system and 65% respondents of distance education system agreed that study material has built in activities. Similarly, 80% respondents of distance education system states that radio broadcast are used as supplement of study material while none of the respondents of formal education were agreed with this statement.

## Discussion

Many institutions are offering open and distance education courses in Pakistan. HEC has allowed formal institutions to offer distance learning courses. Therefore, formal universities are rapidly offering DE courses without fulfilling the demands and conditions for distance education. Nature of distance education and formal systems demands different types of arrangements for effective outcomes. Therefore, institutions need to design courses and services for learners according to demands of system. All personnel involved in distance education process needs to perform their role objectively and accurately (Akhter, 2015).

Study material used in formal and distance education is different in a sense that distance learners have less face to face contact with their tutors but formal learners study

mostly in the conditions where they meet their teachers regularly. So, distance education course materials need to be supportive for learners to become autonomous learners. This study was taken to compare the study material and approaches used in formal and distance education systems. It discusses the particular issues that are mostly happen with the study material and the approaches used by the teachers and tutors from time to time in distance and formal modes of education. a brief discussion on the results regarding issue investigated has given in the next.

Present study has indicated that there was high acceptance of the respondents of both education systems that study material involves students into studies. The mean scores of formal system and distance education systems were calculated 3.67 and 3.76 respectively. Similarly, the study material of both system of education was written by the competent authority. The mean score of formal system of education was 3.62 and distance education system was 3.89. "Study material is logically sequenced". This was highlighted by the respondents of both systems of education. The mean scores were 3.59 and 3.79 respectively. In this regard Dowson (2003, p.199) states that study material which was written by competent authority and characterized with individual analysis is capable to enhance students' communication skills and give them experience in dealing with the problems faced by them in understanding the study material.

Present study has also explored that study material contains self-assessment exercises. The means scores were calculated 3.80 and 3.40 respectively for distance and formal mode. Moreover, distance mode study material has built-in exercises. The mean score of formal system of education was 2.35 whereas the mean score of distance education system was 3.55. Thus, it was concluded that study material of distance education system of education has no self-assessment exercises. As regard to built-in activities the study material of distance education system contains built-in exercises while the study material of formal education system lacks of built-in exercises. Theses highlight efforts of AIOU in offering need based materials to learners.

# Conclusion

Comparison of formal and distance education study materials show that study material of both system of education was written by competent teachers. So, the study material is well in order, sequence, logic and understanding but however, there is a difference between the systems of education so the material has also some differences i.e. in study material for formal education system, teacher explain each and every thing thus there is a lack of self-assessment and built in exercises while distance education system is self-pacing thus it contains self-assessment exercises and built in activities. About the approaches used in both systems of education, some approaches have the same effect and utilization purpose. Whereas, few approaches differ according to the differences and structure of formal distance education system.

Lecture method is used in both systems. Similarly, the discussion method is also being used in both systems in a very effective manner because it involves the students into interaction and useful for up-gradation of their knowledge. About the workshop in distance education and classroom teaching in distance education, it was concluded that both provide interaction opportunities among teacher and students. Thus, in formal as well as distance education system it is appreciable. About the workshops, it was concluded that these are more needed in distance education process.

Some deficiencies and contradictions were found in both systems, i.e. multimedia is up to some extent used in the formal system of education whereas frequently used in the distance education. Similarly, in distance education radio broadcast is used as a supplement of textual material whereas in formal education radio broadcast is not being used at any place. TV programs are also telecast in distance education while in formal education presentation of TV program as supplement of textual material is not favourable. This means that TV programs were given more importance in distance education for understanding and up-gradation of students' knowledge.

#### References

- Akhter, N. (2015). Distance education at a glance. *Journal of Educational Research*. 18 (2) 1-13
- Akhter, N. (2015). Perceptions of Academicians regarding assessment process of distance teacher education courses in Pakistan. *Pakistan Journal of Commerce and Social Sciences*. 9 (1), 248-260
- Akhter, N. and Akbar, R.A. (2015). Problems of distance learners regarding assessment process in Pakistan. *Bulletin of Education & Research*. 38 (2), 59-65.
- Campbell, A., McMamara, O. &Gilroy, P. (2004). *Quantitative Research is Characterized Through Five Points Likert Scale and It is Easy for the Statistical Analysis.*, London: Longman.
- Ali, R., Akhter, A. (2010). Effect of Using Problem Solving Method in Teaching Mathematics on the Achievement of Mathematics Students. *Journal of Asian Social Science*, 6 (2), 87-95
- Bidjerano, T.& Wilkinson, D. (2008). *Designing and Implementing Collaborative Classroom Video Conferences*. Hersbey: IGI Global, Chocolate Avenue.
- Bukhari, M.A. (1997). Tutorial Support in Distance Education, Paris: UNESCO.
- Campbell, A., McMamara, O., & Gilroy, P. (2004). *Practitioner Research and Professional Development in Education.* Virginia: Sage Publications.

- Cargan, L. (2007). *Doing Social Research*. New York: Rowman and Littlefield Publisher Inc.
- Chandar, U., & Sharma, R. (2003). *Bridges to Effective Learning through Radio*. India: Indira Gandhi National Open University.
- Dowson, P. (2003). *Reshaping Change, a Professional Perspective*. London and New York: Routledge, Taylor and Francis Group.
- Ekeyil, D.N. (2013). Effect of Demonstration Method of Teaching on Students' Achievement in Agricultural Science. *World Journal of Education*, 3(6), 2-9
- Gay, L.R. (2005). *Educational Research: Competencies for Analysis and Applications* (5<sup>th</sup> Edition). Islamabad: National Book Foundation.
- Gijselaers, W.H., et.al. (2013). Educational Innovation in Economics and Business Administration: *The Case of problem-based learning. Maastricht*. The Springer. PP.112-18
- Hackathorna, J. et.al. (2011). Learning by Doing: An Empirical Study of Active Teaching Techniques. *The Journal of Effective Teaching an Anline Journal Devoted to Teaching Excellence the Journal of Effective Teaching*, 11(2), 40-54
- Kuhlemann, S. (2012). *Heuristic Strategies Prospective Teachers Use in Analysing Students' Work*. Germany: University of Oldenburg.
- Maidment, J., & Egan, R. (2009). Practice Skills in Social Work and Welfare: More than Just Common Sense. Crows Nest: Allen & Unwin.
- Martin, R., et. al. (1996). Functions, Use and Effects of Embedded Support Devices in Printed Distance Learning. *Journal of Learning and Instruction*, 6 (1), 77-85
- Newing, H. (2010). Conducting Research in Conservation: Social Science Methods and Practice. London and New York: Routledge, Taylor and Francis group.
- Pappas, C. (2014). *Instructional Design Models and Theories: Programmed Instruction as an Educational Model*. Retrieved May 11, 2015, from eLearning Industry: http://elearningindustry.com/programmed-instruction-educational-model
- Paris, C. (2014). *Lecture Method: Pros, Cons, and Teaching Alternatives*, retrieved on 8-7-15 from http://blog.udemy.com/Lecture- Method
- Popov, O.B. (2003). Creative and innovative management. *Series III. Computer and System Sciences*, (Vol 189). Ohmasa: IOS press.
- Portyanskaya, Z. (2009). The project methods as an alternative technique in secondary schools. *The Journal on Problems of Education in the 21<sup>st</sup> Century*, (Vol. 10)

- Rashid, M., & Rashid, N. (2010). Student support services of eastern & western institutes of distance education. *Journal of Educational Research*, *13*(2), 178-89
- Robinson, B. (1997). Distance education for primary teacher training in developing countries. InLynch, J., Modgil, C. & Modgil, S. (Eds.) *Education and Development: Tradition and Innovation in Delivering Primary Education*. London: Cassell Educational Press
- Rovai, A.P., Baker, J. D., & Ponton, M. K. (2013). Social Science Research Design and Statistics: A Practitioner's Guide to Research method and IBM SPSS Analysis. Chesapeake: Watertree Press.
- Schwab, D. P. (1999). *Research Methods for Organizational Studies*. Mahwah: Lawrence Erlbaum Associate.
- Teed, R. (2012). *Role-Playing, Pedagogy in Action: the SERC portal for Educators*. Retrieved on May 9, 2015, from Carleton College: http://serc.carleton.edu/sp/ library/ roleplaying/index.html
- Willis, B. (2013). Distance Education. Strategies and Tools and Distance Education. A Practical Guide Distance Education at a Glance. New York: University of Idaho.