THE INFLUENCE OF E-LEARNING ON THE TRANSFORMATIVE EDUCATION OF COOPERATIVE MEMBERS IN THE SOUTH EAST OF NIGERIA

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Abstract:
The thrust of this study is to examine the effects of e-learning on the transformative education of Cooperative Members. The descriptive survey design was adopted for the study. Multistage random sampling technique was used to select 300 respondents consisting of 75 Cooperative Leaders and 225 members. A well-structured questionnaire was validated and used to collect relevant data which was analysed using descriptive statistics (the mean and standard deviation). Findings indicate that very few e-learning facilities are available in cooperatives even at secondary and apex levels in the area studied; hence the adoption of e-learning is poor. However, the study revealed that the few e-learning facilities adopted have good effect on the transformative education of the cooperative members. The study also found out that the adoption of e-learning has lots of challenges, including high cost of imported equipment and e-learning facilities; insufficient E-learning infrastructure, inadequate time to develop and implement ICT-using activities, lack of digital learning resources, among others. The study, therefore recommends that specialty training should be given to cooperative leaders to make them keep abreast of the trends in e-learning and they should source for more funds for the improvement of e-learning infrastructure.

Key words: E-learning, Transformative, Education, Cooperative

INTRODUCTION:

Background to the Study:
The Higher Education Funding Council for England (HEFCE, 2005) described E-learning as the use of technologies in learning opportunities, encompassing flexible learning as well as distance learning; and the use of information and communication technology (ICT) as a communication and delivery tool, between individuals and groups, to support students and improve the management of learning. The perception is that the world has become smaller as a result of the immense progress made in the field of information and communication technologies. ICT is accessible to all across the continents and the oceans through the satellites, cables, and other such devices that have made man more independent and have increased his mobility by making distances shorter and communication faster.

Notwithstanding that e-learning’s influence on traditional institutions has been weak-in-reality, little more than an enhancement of current practices-as we gain a better understanding of its potentials and strength, e-learning can effectively transform how we approach the teaching and learning transaction (Garrison and Anderson, 2000). E-learning transforms education in ways that extend beyond the efficient delivery or entertainment value of traditional approaches. E-learning cannot be ignored by those who are seriously committed to enhancing teaching and learning. E-learning presents a completely new learning environment for students thus requiring a different skill set to be successful (Romiszowski, 2004). Students tend to be more independent on courses that are entirely electronic than in the traditional setting; this requires them to be highly motivated and obligated to learn (Huynh, Umesh & Valachich, 2003).

The process of transformative learning/education is consistent with what is known as constructivism. Constructivism is a view of learning where the learner is an active participant
in the learning process, not as a passive recipient, creating and interpreting knowledge rooted in personal experience. That is, people “construct” meaning from their own experiences and different people view the same event in different ways. Learners apparently tend to use their personal experiences to interpret their current learning. Mezirow (2000) argues that adults have a need to better understand how to negotiate and act upon their own purposes, values, feelings and meanings rather than those they have uncritically assimilated from others to gain greater control over all lives as socially responsible, clear thinking, decision makers. O’Sullivan (2003) avers that transformative learning involves experiencing a deep, structural shift in the basic premises of thought, feelings and actions. It is a shift of consciousness that dramatically and irreversibly alters our way of being in the world. Such a shift involves our understanding of ourselves and our self-locations; our relationships with other humans and with the natural world.

Often, the best solution is a combination of technologies depending on the particular need and learning environment. Notwithstanding the widespread adoption of computer communications in the society, we are yet to fully experience the transformative effects of this medium, particularly its effect on e-learning. In spite of the significant growth and interest in e-learning, positive outcomes are not ensured in all contents (Alexander, 2001). In view of this, some researchers have shown uncertainties about technology transforming teaching and learning (Lee, 2006; Remeo, 2006).

Cooperatives are principle-based enterprises that put people, rather than the pursuit of profit at the centre of their business. Because of this, they follow a broader set of values than those associated purely with making a profit, namely self-help, self-responsibility, democracy, equality, equity and solidarity. Cooperative education is one of the seven Cooperative Principles that require “education, training and information to be provided for members, leaders, employed staff and the general public”. The fifth Cooperative Principle also underscores the centrality of cooperative education, training and information in cooperative development. Co-operative training is defined as the process of acquisition of specific skills needed to run a co-operative enterprise; first, as a business organization and, second, as a social enterprise. The social dimension of the enterprise is added because different from other forms of organizations in the public and private sectors, co-operatives are formed to improve the economic, social and cultural conditions of the members (Chambo, 2009). It is a general assumption that the availability of E-learning facilities would improve the learning process in the classroom hence creating transformative learning but the extent to which the same e-learning facilities can create transformative learning among Cooperative Society members in fulfilling the fifth cooperative principle has not been established.

**Objectives of the Study:**

The broad objective of this study was to examine the effect of e-learning facilities on the transformative education of Cooperative Members. Specifically, the study intended to;

1. Identify the e-learning facilities available for cooperative education in South-East, Nigeria.
2. Assess the extent of use (level of adoption) of e-learning facilities among Cooperative members in the area under study.
3. Examine the effect of e-learning on cooperative members’ self-development in the area under study.
4. Investigate the challenges in the adoption of e-learning for the transformative education of Cooperative members in the area under study.
Research Questions:
1. What e-learning facilities are available to Cooperative members in the study area?
2. To what extent are e-learning facilities used (adopted) among Cooperative members in the study area?
3. What is the effect of e-learning on Cooperative members’ self-development in the study area?
4. What are the challenges in the adoption of e-learning for the transformative education of Cooperative members in the study area?

REVIEW OF RELATED LITERATURE:

The Concept of E-Learning:
E-learning technology is the convergence of the learning process and the internet. Information technological improvement has turned the big world into a small global village. Communication is the live wire of today’s business and means of livelihood. Communication is one of the oldest technologies but less attention was paid to it as regards the role it played in the history and life of mankind. By e-learning research, we mean, primarily, research into, on, or about the use of electronic technologies for teaching and learning (Andrews & Haythornthwaite, 2007). This encompasses learning for degrees, work requirements and personal fulfillment, institutionally and non-institutionally accredited programmes in formal and informal settings. It includes anywhere, anytime learning, as well as campus-based extensions to face-to-face classes. E-learning includes all levels of education from pre-school to secondary/high school, higher education and beyond.

‘E-learning’, as a term, is a hybrid. Like many compounds, the two elements have worked together to create a new hybrid. Nevertheless, it is made up of two parts: e + learning. The ‘e’ of e-learning has a longer history than many will assume, including long-term efforts to capture voice and images, and to store and then transmit those recordings. With each capture – from records to CDs, films to DVDs, conversation to text chat – there are trade-offs in quality, interactivity, and transferability: trade-offs that mark both the pros and cons of technology mediation.

To have an e-learning system means having people talking, writing, teaching, and learning with one another online, via computer-based systems. While e-learning is usually found implemented via a suite of software tools, such implementation is only the surface of the e-learning environment. E-learning encompasses any and all means of communication available to participants, from dedicated course management systems to late-night phone calls and e-mail in the early hours of the morning, from instructor-prepared lectures to collaborative products generated through discussion boards, blogs and wikis. E-learning is a leaky system; it spreads to take advantage of any and all opportunities for communicating, learning, and seeking resources, and, like invasive species, turns up in many places not traditionally associated with formal instruction – the kitchen table, coffee shop, workplace, hotel room or corner of the bedroom. Through instructor and student push-and-pull, e-learning colonizes new technologies and new spaces, with each new generation of technologies providing, but also creating demand for new kinds of delivery (e.g. gaming environments, podcasting based on MP3 players, video streaming and mobility inherent in cell and mobile phones, PDAs, and laptops).

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Cooperative Education:
In the co-operative movement, education is highly recognized as a very essential instrument for achieving success. Most co-operators place much premium on co-operative education to the extent of ranking it above capital in the development of the organization.

The International Co-operative Alliance offers a comprehensive description of the fifth principle and explains why co-operative education is important. First, “co-op education played a central role in the growth of the Raiffeisen, Mondragon, and Antigonish movements. Education was, and remains the lifeblood of all co-operatives and a driver of co-operative development” (ICA 2014, Education and community development have been inextricably tied to co-operative development in each of the aforementioned examples.

Co-operative education is also a priority for the future. The ICA’s “Guidance Notes — Interpretation Aids for the Co-operative Principles” assert that “member education needs to be an important focus for co-operatives, and means more than simply informing co-operative members about the business and encouraging trading loyalty, albeit it must do those things as well.”

The Theoretical Framework:
*Transformative learning* was the theoretical framework for this study. It posits that adults view life with limited perspectives based upon limited experiences that shape their personal beliefs (truths). Through expanding their experiences, individuals may challenge existing beliefs and gain new perspectives identified as transformative learning. Experiences that inform transformative learning may happen quite suddenly such as in the loss of a loved one or the birth of a child. They may also occur as a series of seemingly normal events that, over time, culminate in a significant change in perspective (Mezirow, 1991). Transformative learning may have occurred since the beginning of civilization but as a research framework, it is relatively new emerging only over the past 35 years. Identified by Jack Mezirow (1978) in the 1970’s, it is the most actively studied adult learning phenomenon today. Still, there is much to learn due to the complexities of competing theories. In part, the complexities listed below inform the Nerstrom Transformative Learning Model. The first complexity stems from Mezirow’s (1978) original study which identified ten phases that contributed to transformative learning. While the factors were well constructed and may hold true, the pathway through those phases was complicated. Mezirow (1978) explained that to encounter transformative learning, not all of the phases needed to be experienced and, furthermore, they may be experienced in random order. The phases are: (a) a disorienting dilemma; (b) self-examination of assumptions; (c) critical reflection on assumptions; (d) recognition of dissatisfaction; (e) exploration of alternatives; (f) plan for action; (g) acquisition of new knowledge; (h) experimentation with roles; (i) competence building; and (j) reintegration of new perspectives into one’s life (Mezirow, 1991). Second, no universal definition of transformative learning exists which adds to the confusion; and Tisdell (2012) concurs that, at times, the term is used “so loosely”; it may have lost its original meaning. Theorists, generally, agree, however, that transformative learning speaks of “how we learn to negotiate and act on our own purposes, values, feelings, and meanings rather than on those we have uncritically assimilated from others” (Mezirow & Associates, 2000). Based on the concept that there are no fixed truths, the theories profess that adults’ past experiences, many from childhood, form their core beliefs or what they believe to be true. The beliefs may actually be distorted perspectives identified as *taken-for-granted assumptions* (Mezirow and Associates (2000) and are subject to change.
Third, transformative learning is complex because it has been recognized as three distinct or possibly competing concepts: (1) a process, (2) an outcome, or (3) pedagogy (Fisher-Yoshida, Geller, & Schapiro, 2009). As a process, transformative learning is still not entirely understood but is most often discussed in terms of Mezirow’s ten-phase process. As an outcome, it constitutes a new lens through which one sees oneself or others. As pedagogy, transformative learning provides a paradigm of education that fosters a powerful shift in beliefs or values.

Fourth, as the field of transformative learning has developed, scholars have approached it from various perspectives. For example, Mezirow (1991) believes that discourse with others is important in transformative learning, but Cranton (2006) asserts that it can occur without discourse. Mezirow (1991) viewed the process of transformative learning as rational (objective), but Dirkx and Mezirow (2006) suggest that it is influenced by the unconscious and emotional self (subjective). Mezirow (1991) elaborates a ten-phase process of transformative learning, but Tennant and Pogson (1995) attributes a change in beliefs to normal life cycles of development.

Furthermore, Newman (2012) questions whether transformation exists at all, maintaining that such changes may simply be the result of good learning.

Fifth, there is the argument on whether transformative learning is a cognitive, affective, somatic, or spiritual experience or possibly any of these combined. Mezirow (1978) originally believed it was a cognitive experience, but more recently notes that it can also occur through affective experiences. Tisdell (2012), in agreement, indicates that other experiences provide us with an opportunity to ponder on the “big questions of life—what it means to be human”. Lawrence and Cranton (2009) wrote, “No one theoretical perspective needs to mean others are excluded. That is, transformative learning can be both cognitive and imaginative; it can be collaborative and individually based; it can include depth psychology alongside a more practical reflective approach. Dreams and reflections need not compete with each other”. Within these complex differences, however, theorists, such as Mezirow (1991) and Cranton (2006) agree that transformative learning begins when individuals reflect critically upon their assumptions of what they believe to be real, true, or right. Critical reflection is the ongoing process of consciously or unconsciously reviewing and evaluating assumptions to clarify the meaning of experiences both individually and collectively. These complexities and others inform the academic that transformative learning is still an emerging theory.

Transformative learning is a theory about making meaning, not just about acquiring knowledge (Mezirow, 1991). It is about taking ownership of one’s learning through critical reflection, rather than mindlessly or unquestioningly acquiring frames of reference through life experiences. Transformative learning, according to Mezirow (1991), can be viewed as “an enhanced level of awareness of the context of one’s beliefs and feelings; a critique of one’s assumptions, and particularly premises, and an assessment of alternative perspectives” More recently, Mezirow writes that “transformative learning is learning that transforms problematic frames of reference-sets of fixed assumptions and expectations (habits of mind, meaning perspectives, mindsets)-to make them more inclusive, discriminating, open, reflective, and emotionally able to change” (2003). More simply put, transformational learning theory is about making sense of our experiences; it is a meaning-making activity.

Meaning making in transformative learning is different from everyday learning for the reason that “normally, when we learn something, we attribute an old meaning to a new experience. In
transformative learning, however, we reinterpret an old experience (or a new one) from a new set of expectations” (Mezirow, 1991). In this regard, transformative learning is much more than merely mastering a body of content (Dirkx & Smith, 2009).

THE METHODOLOGY:

Research Design:
The research design used in this study is the descriptive survey design. Data was gathered from a large number of respondents who constituted the sample which is representative of the population of interest.

Area of the Study:
The area of the study used was South-East Nigeria. South-East of Nigeria is made up of five states, namely, Anambra, Abia, Imo, Ebonyi and Enugu.

Population of the Study:
The population of the study was made up of all the 1,219,802 Cooperative members in South-East Nigeria and 82,052 members of the management committees of Cooperative Societies in South-East Nigeria.

Sampling Technique and Sampling Size Determination:
The multistage random sampling technique was adopted for this study. Firstly, all the five (5) states in the South-East of Nigeria were selected, and, three (3) Cooperative societies. Each was randomly selected from each of the states, then 5 members of Cooperative management committees were randomly selected alongside 15 ordinary members of Cooperative Societies. Therefore, a total of 75 management committee members and 225 ordinary members were used for the study making up a total of 300 respondents.

Method of Data Collection:
The data used for this study was generated from primary sources only. A structured questionnaire was used to solicit information from the respondents. The questionnaire was chosen as a suitable instrument for data collection considering the fact that it ensures uniformity, avoids ambiguity, avoids errors, saves time and has a relatively high degree of standardization.

Validity of the Research Instrument:
The research instrument was validated to ensure face and content validity. The questionnaire was issued to validators including experts and lecturers in the management of the Cooperative field who critically examined the research instrument.

Reliability of the Research Instrument:
In order to ensure reliability of the instrument, the test-retest technique was adopted. To achieve this, selected respondents were given the questionnaires twice at an interval of 12 days. The correlation of the two sets of scores was determined using the Pearson Product Moment Correlation. The high coefficient of 0.79 indicated good consistency of the questionnaire.

Method of Data Analysis:
Descriptive statistics were deployed in the analysis of data collected from the respondents. The descriptive statistics involved the mean, percentage and standard deviation.
DATA PRESENTATION AND ANALYSIS:
E-Learning Facilities Available for Cooperative Education:

Table 1: Descriptive Statistics on the Extent of Availability of E-Learning Facilities

| E-Learning Device       | Mean | Standard Deviation | Remarks |
|-------------------------|------|--------------------|---------|
| Computer (Desktop and Laptop) | 2.41 | 0.972              | Low     |
| Phone (Smart Phones)    | 4.53 | 0.890              | Very High |
| Internet Facility       | 2.11 | 1.092              | Low     |
| Powerpoint Projector    | 1.62 | 0.678              | Low     |
| Tablets                 | 1.34 | 0.990              | Very Low |
| E-Readers               | 1.78 | 1.108              | Low     |
| Computer Lab            | 0.38 | 0.782              | Very Low |
| Multimedia Classroom    | 1.01 | 0.672              | Very Low |
| Television (LCD)        | 3.90 | 0.980              | High    |
| Digital Flip Chat       | 1.92 | 1.094              | Low     |

Source: Field Survey, 2016

Table 1 shows the mean and standard deviation on the availability of e-learning facilities for Cooperative education of members and leaders. The result reveals that all the e-learning facilities are not available for cooperative members and leaders for their education or training with the exception of phones and television sets.

Extent of Use (Level of Adoption) of E-Learning Facilities by Cooperative Members:

Table 2: Distribution of Respondents on the Level of Adoption of E-Learning Facilities

| E-Learning Device       | Mean | Standard Deviation | Remarks |
|-------------------------|------|--------------------|---------|
| Computer (Desktop and Laptop) | 1.23 | 0.882              | Very Low |
| Phone (Smart Phones)    | 3.94 | 0.971              | High    |
| Internet Facility       | 1.41 | 0.892              | Low     |
| Powerpoint Projector    | 1.59 | 0.773              | Low     |
| Tablets                 | 1.04 | 0.937              | Very Low |
| E-Readers               | 1.08 | 1.394              | Very Low |
| Computer Lab            | 0.47 | 0.981              | Very Low |
| Multimedia Classroom    | 1.09 | 0.972              | Very Low |
| Television (LCD)        | 1.46 | 0.74               | Very Low |
| Digital Flip Chat       | 1.74 | 1.094              | Very Low |

Source: Field Survey, 2016

The table 2 reveals that the adoption of Television (LCD), Tablets, E-Readers, Computer Laboratories, Multimedia Classrooms and Digital Flip Chats were very low. Internet facilities, tablets, e-reader and multimedia classroom had low adoption. On the other hand, only the Phone was highly adopted for e-learning by the Cooperative members and leaders.
Effect of E-learning on Cooperative Members’ Self-Development:

Table 3: Distribution of Respondents on the Effect of E-learning on Cooperative Members’ Self Development

| Effect                                                                 | Mean | Standard Deviation | Remarks |
|------------------------------------------------------------------------|------|--------------------|---------|
| Ability to learn anywhere and at any time                              | 4.61 | 0.980              | Very High |
| Enhances the learning process                                          | 4.09 | 0.857              | Very High |
| Ability of Students to follow the curriculum at their own pace         | 3.90 | 0.862              | High    |
| Makes teaching easier                                                  | 4.21 | 0.768              | Very High |
| Makes learning more practical-oriented                                 | 4.12 | 0.981              | Very High |
| Motivates learning by combining text, sound, colour and moving images  | 4.06 | 1.097              | Very High |
| Promotes active learning strategies                                    | 3.89 | 1.294              | High    |
| Individualizes students’ learning experiences                          | 3.87 | 1.093              | High    |
| Encourages more cooperative and project-based learning                | 3.72 | 0.879              | High    |
| Increases access to information                                        | 4.89 | 0.995              | Very High |

Source: Field Survey, 2016

Table 3 shows the distribution of respondents on the effect of E-learning on Cooperative members’ self-development. The respondents affirmed that the following effects are very high on Cooperative members’ self-development; ability to learn anywhere and at any time; enhances the learning process; makes teaching easier; motivates learning by combining text, sound, colour and moving images and increases access to information while the rest are high.

Challenges in the Adoption of E-learning for the Transformative Education of in-school Adolescents:

Table 4: Distribution of Respondents on the Challenges in the Adoption of E-learning for Transformative Education

| Challenge                                                                 | Mean | Standard Deviation | Remarks |
|--------------------------------------------------------------------------|------|--------------------|---------|
| Computer Viruses                                                         | 2.04 | 1.901              | Low     |
| Shortage of trained ICT Professionals                                   | 3.7  | 0.905              | High    |
| High cost of imported equipment and e-learning facilities                | 4.78 | 0.892              | Very High |
| Insufficient E-learning infrastructure                                   | 4.56 | 0.782              | Very High |
| Inadequate E-learning-related skills                                     | 3.56 | 0.781              | High    |
| Insufficient confidence to try new approaches                            | 2.98 | 1.201              | Low     |
| Inadequate time to develop and implement ICT-using activities            | 4.35 | 0.825              | Very High |
| Lack of digital learning resources                                       | 4.58 | 0.942              | Very High |

Source: Field Survey, 2016

The study sought to identify the challenges inherent in the adoption of E-learning for transformative education. Table 4 shows that the areas that posed very high challenges in the adoption of e-learning for transformative learning are; high cost of imported equipment and e-learning facilities; insufficient E-learning infrastructure; inadequate time to develop and implement ICT-using activities and lack of digital learning resources. Shortage of trained ICT Professionals and inadequate E-learning-related skills were also considered to be highly
challenging. The respondents, however, did not consider the following to be much of any challenge to the adoption of E-learning; computer viruses and insufficient confidence to try new approaches.

THE SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS:

Summary of Findings:
The research work set out to study the effect of e-learning facilities on the transformative education of Cooperative members in South-East Nigeria. Findings of the study reveal that only Phones (Smart Phones) were highly available for e-learning purposes in the Cooperative Societies. Other E-learning facilities were not available. On the adoption of E-learning facilities, it was found out that only phones were available and adopted in the Cooperatives Societies. However, on a general basis, the availability and adoption levels of E-learning facilities seem to be very low among the Cooperative members. Concerted efforts have not been made to see that e-learning facilities are made available and adopted among Cooperative members.

The study also reveals that the effects of e-learning on Cooperative members’ self-development included that it gives ability to learn anywhere and at any time; it enhances the learning process; makes teaching easier; provides motivation for learning by combining text, sound, colour and moving images and increases access to information while the rest are high. This finding is in consonance with the findings of Breuleux, Laferrière, & Lamon (2002) and Chambers (2003).

The study also investigated the challenges in the adoption of E-learning facilities and found out that the key challenges include; high cost of imported equipment and e-learning facilities; insufficient E-learning infrastructure; inadequate time to develop and implement ICT-using activities and lack of digital learning resources, shortage of trained ICT Professionals and inadequate E-learning-related skills.

Conclusion:
The E-learning facilities are not very much available among Cooperative members; hence the adoption seems quite low. However, it was perceived that e-learning has lots of positive effects on the transformative learning of Cooperative members. As the analysis of data gathered on a sample of three hundred respondents has shown, there are still many issues and challenges that need to be closely considered before we can safely state that e-learning and other related learning methods have contributed greatly to transformative education of Cooperative members. It can be confidently said that there is still a long way to go before we can make the whole world harvest the benefits of the progress of science and technology relative to e-learning.

Recommendations:
Based on the findings of this study, the following recommendations are made:

1. Specialty training should be given to Cooperative Leaders to make them keep abreast of the trends in e-learning and equip them to make use of e-learning facilities to make effective the fifth Cooperative principle of Education, training and information while making the process more enjoyable and ultimately facilitating the improved learning process. This training will ensure that the challenges of shortage of trained ICT Professionals and inadequate E-learning-related skills are taken care of.
2. Cooperative societies must set aside the statutory education fund of 10% of the remainder of the annual surplus after 25% of the net surplus has been deducted as a statutory reserve. Part of this education fund should be used to provide e-learning facilities for the transformative learning of members.

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