

Authentic Teaching Strategy and Learning Outcomes of Undergraduate Adult Education Students in a Public University in Ogun State, Nigeria

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Abstract

Poor teaching strategies has been linked to poor learning outcomes of undergraduate adult education programs and poor-quality graduates for the Nigerian society. Therefore, this study examined the relationship between authentic teaching strategy and learning outcomes of undergraduate adult education students in a public university in Nigeria. Using descriptive survey design, one hundred and twenty participants were selected using purposive and simple random sampling methods. A modified "Authentic Teaching and Learning Outcomes of Adult Education Questionnaire" (ATLOAEQ) with Cronbach Alpha test of internal consistency of 0.86 was administered for data collection. Data were analyzed using descriptive statistics including frequency counts, percentages and inferential statistics i.e., multiple correlation matrix at 0.05 level of significance. Correlation analysis showed that authentic teaching strategy has significant positive relationship with subject/content knowledge (r.872), knowledge of real-life situation (r.998), participatory group strategy (r. 988), communication skills for real world audience (r.975). Based on this, all the three null hypotheses tested at 0.05 level of significant were rejected. It is recommended that the Nigeria government and international donor agencies should direct more funds towards the improvement in university undergraduate adult education teaching, learning outcomes and service delivery for better curriculum implementation.

Keywords: Authentic, Teaching, Learning, Outcomes, Adult Education

Introduction

Background to the Study

The availability of adult education as a field of study in universities has been identified as very key to national development of developing and under-developed countries. As an academic endeavor, it provides solutions to socio-economic, cultural, political, real life and environmental problems. It has been linked to having positive association and increased levels of self-esteem, high levels of knowledge and skills for positive and active engagement of people in their own development (Umar, Eshak, Bichi and Aujara, 2010). As a result of its linkage to all spheres of national life, it is crucial to the development of all sectors of the economy. However, it has been neglected and poorly funded by government right from pre-independent era till now (Obasi, 2014). This pattern has led to the relegation of adult education as a field of study by its outright exclusion from the curricula of most tertiary universities in Nigeria. This is depriving the Nigerian people the opportunity to life sustaining functional knowledge that can only be taught using adult education teaching strategies. However, it should be noted that the few tertiary institutions offering the course contend with many challenges, ranging from poor knowledge content, inefficient curriculum development and implementation, ineffective teaching strategies, poor students' accessibility, inadequate funding, poor mobilization and inadequate teaching personnel (Obasi, 2014).

Consequently, it is important to adjust the curriculum and teaching strategy in order to bridge the gap in quality and quantity of adult education graduates being produced by Nigerian universities. To this end, emphasis is being renewed on the teaching methods of adult education because it differs greatly from other courses. Confirming this, Shiddike (2017) states that teachers of adult education now focus on authenticity as one of the emerging strategies that can make adult learners progress quickly in learning from the real world. The adoption of authentic teaching strategy in adult education has also been seen as the best way to prepare adult education teachers for real world problem solving because of its high level of effectiveness.

The need to sustain the improvement required in the university-level teaching strategy of adult education for a better-quality graduates that can impact on their learners amid the prevailing curriculum and poor funding of the course re-emphasizes the fact that effectiveness and efficiency can only be achieved by improving on the traditional methods of teaching. Thus, teaching future adult education facilitators at the university level requires a different strategy because the expectation is for them to be able to impact on their learners the ability to solve real life problems. To attain this special learning outcomes, the teaching strategy must be seen as different and authentic strategy that uses a situated

teaching and learning approach has been deemed effective (Brockett in Shiddike, 2017; Luo, Murray and Crompton, 2017).

It is a common knowledge that poor adult education teaching and learning constitute a challenge in the learning activities, subsequently, resulting to poor outcomes of learners. Other hindrances to university level adult education programs are inadequate teaching strategy and lack of robust content knowledge. Hence, there is a widening gap in the required learning outcomes the graduate adult education teachers can impact on adult learners. Therefore, the need to exploit other teaching strategies that can provide the desired outcomes in the adult teaching and learning activities.

Statement of the Problem

Several authors have identified that poor quality teaching, learning and inadequate curriculum implementation constitute major challenges to university adult education in Nigeria. The many learning needs and challenges of undergraduate adult education students remain unresolved because the required special attention from lecturers in the area of appropriate and effective teaching strategies are lacking. Huang, Tindall and Nisbet (2011) noted that these students face the challenges of developing specific knowledge that reflect real life situations and life goals, basic skills, language proficiency and communication ability required to secure employment and role playing among adult learners while on the field after graduation. The problem is that the teaching strategies adopted in teaching undergraduate adult education students often fail to impact on the four critical areas of subject/content knowledge, knowledge of real-life situation, participatory group strategies, and communication with real world audience crucial to the success of all adult education service delivery. Although, there have been different studies on authentic teaching and learning outcomes. For instance, Interiano, Tkacik, Dahlberg and Lim (2018) conducted a research on authentic knowledge, learning outcomes, and professional identity: a mixed-methods study of a successful engineering course while Güneş, Arıkan, Adnan, and Çetin (2020) research focused on analyzing the effect of authentic learning activities on achievement in social studies and attitudes towards geographic information system. However, more research is required in the area of authentic teaching and learning outcomes measured in these four forms of subject/content knowledge, knowledge of real-life situation, participatory group strategies, and communication with real world audience in the universities' based adult education programs. Therefore, this study is on authentic teaching strategy and learning outcomes of undergraduate adult education students in a public university in Ogun state, Nigeria.

Objectives of the Study

The objectives of this study are to determine whether there is any relationship between authentic teaching strategy and students' level of subject/content knowledge, find out whether there is any relationship between authentic teaching strategy and students' level of meaningful knowledge of "real-life" situations; and examine whether authentic teaching strategy has any relationship with students' capacity for participatory group strategies. It is also to determine whether authentic teaching strategy has any relationship with students' communication skills with larger real-world audience.

Research Question

Consequently, the study will attempt to provide answers to the following questions: Is there any relationship between authentic teaching strategy and students' level of subject/content knowledge? Is there any relationship between authentic teaching strategy and students' level of meaningful knowledge of "real-life" situations? What is the relationship between authentic teaching strategy and students' capacity for participatory group strategies? Is there any relationship between authentic teaching strategy and students' communication skills with larger real-world audience?

Hypotheses of the Study

The hypotheses of the study are:

H₀₁. there is no significant relationship between authentic teaching strategy and students' level of subject/content knowledge.

H₀₂. there is no significant relationship between authentic teaching strategy and students' level of meaningful knowledge of "real-life" situations.

H₀₃. there is no significant relationship between authentic teaching strategy and students' capacity for participatory group strategies.

H₀₄. there is no significant relationship between authentic teaching strategy and students' communication skills with larger real-world audience.

Review of Related Literature

Authentic Teaching

Cranton and Carusetta (2004), Kreber, Klampfleitner, Mccune Bayne and Knottenbelt (2007) define authenticity in teaching as a process of "being conscious of self, others, relationships, and context through critical reflection". They refer to authentic teaching in university as show of consistency between values and actions and an engagement in critical reflection on teaching

practice. However, Carl Rogers in Kreber, Klampfleitner, Mccune Bayne and Knottenbelt (2007) define authentic teaching based on teacher characteristics as the process that promotes student learning employing the terms "trustworthiness," "genuineness," "realness" and "congruence," with emphasis on the notion of "being truly myself with them (students)". Weimer (2012) notes that authentic teaching is not only intriguing but also complex and multidimensional phenomenon. According to her:

authenticity in teaching involves features such as being genuine; becoming more self-aware; being defined by one's self rather than by others' expectations; bringing parts of oneself into interactions with students; and critically reflecting on self, others, relationships and context, and so forth. ... Authenticity is not just something that exclusively rests within "myself" ... for authenticity to be meaningful it needs to be sought in relation to issues that matter crucially."

According to Aina, Aboyeji and Aboyeji (2015) authentic teaching is a process that allows students to direct their investigative skills to complete all scientific processes like data gathering, analysis, hypothesizing, observation and experimenting. Azhar (2018) defined authentic as something that is not artificial but something which is designed or engineered in reference to needs, situation and condition which is original, factual, observable, measurable, and doing transaction/interaction/activity through a set-up procedure. The author stated that:

there are three impacts to teachers and students in the implementation of authentic teaching and assessment: technical, practical, and emancipatory interests. The technical impact makes the students smart in decisions making; the practical impact shows the high-level reflection of the students; while the emancipatory impact provides students with the ability of critical thinking and action (pp: 29).

The author stated further that authentic teaching, in this context, is the designed and engineered teaching based on the real needs, situation, and condition.

Authentic Learning

Carlson (2002) and Mims (2003) stated that in authentic learning, learners are presented with realistic problems or projects that have realistic purposes and given the opportunity to investigate and converse about these problems and projects in manners that are applicable to them and their lives. To Zualkerman (2004) authentic learning situations are a safe and situated "surrogate"

for “real-world” learning experiences. Rule (2006) stated that authentic learning has four broad principles, regardless of discipline. These four principles show that authentic learning experiences should focus on practical, lifelike problems that imitate the trade of experts in the field with communication of results to individuals outside the classroom, be inquiry-based with an emphasis on meta-cognitive skills, encourage learners to participate in active conversations in a social learning environment, and allow learners make choices and guide their own learning in meaningful, task-oriented work. According to Lombardi (2007), authentic learning is not a new concept. In fact, authentic learning is an old concept that has been around long since the time when apprentice-mentor relationships were the leading method of job or trade training. The author further states that authentic learning manifests itself in many forms and fashions, and it occurs across age groups and disciplines. Examples of authentic learning include problem-based, project-based, inquiry-based, role-playing/simulation based, case study-based, and critical incident-based learning experiences which are core teaching methods in undergraduate adult education programs.

Jonassen, Howland, Marra and Crismond (2008) defined authentic learning as learning that is seamlessly integrated or implanted into meaningful, “real-life” situations. They noted that this type of learning exists in stark contrast to traditional classroom learning where, often for the sake of time, ideas and concepts are frequently extracted from their original, real-world contexts and presented to the learners as isolated facts to be memorized. Iucu and Marin (2014) refer to authentic learning as the learning that is seamlessly integrated or implanted into meaningful, “real-life” situations. And that in authentic learning, learners are presented with realistic problems or projects that have realistic purposes and given the opportunity to investigate and converse about these problems and projects in manners that are applicable to them and their lives. Furthermore, Iucu and Marin (2014) identified that authentic learning strategy has some basic elements. According to them:

first, instructors are encouraged to design activities for their students that match as nearly as possible the real-world tasks of professionals in the field. Secondly, the challenges students are asked to undertake should be complex, ambiguous, and multifaceted in nature, requiring sustained investigation. Thirdly reflection, self-assessment, and performance review are fully integrated into the exercise. The real-world challenge comes with its own criteria for success. Students are held accountable for achieving the milestones that practitioners would have to meet under genuine working conditions. The fourth basic

element is that teamwork is as essential to the authentic learning experience as it is likely to be in modern workplace settings. Groups of students have to draw on multiple sources and negotiate among multiple perspectives—including those of the stakeholders (business partners, clients, customers, citizens) who will be impacted by their performance; and the fifth is that an authentic learning exercise highlights a student’s capacity to affect the world beyond the classroom....(p. 411).

Aina, Aboyeji and Aboyeji (2015) identified that authentic learning typically focuses on real-world, complex problems and their solutions, using role playing exercises, problem-based activities, case studies, and participation in virtual communities of practice. Students are actively working, participating in discussions, hunting for information, and enjoying the entire process of authentic learning. Authentic learning activities are designed to give the students ‘real-world’ experiences. Aina, Aboyeji and Aboyeji (2015) mentioned that authentic learning should be an inquiry in nature that enables the student to develop knowledge and skill for a successful learning. It is a learning by doing. It is an active learning where students are not passive. It is an inquiry method of learning. In the words of Pearce (2016), authentic learning is designed to connect what students are taught in school to real-world issues, problems, and applications; learning experiences should mirror the complexities and ambiguities of real life. Learners work towards production of discourse, products, and performances that have value or meaning beyond success in school; this is learning by doing approach. In line with this opinion, Özü-Nazan and Duman (2019) also asserted that authentic learning is a learning strategy that is carried out using real life problems, situations or environments in which students are made active. This strategy consists of a large number of components in terms of the environment used, the situations/subjects and the roles of students and teachers. Based on these, Nel and Pretorius (2019) stated that this approach stresses the need for assignments to be demanding, meaningful and authentic. This requires students to employ reflective and analytical thought processes as a real-world skill. Consequently, Özü-Nazan and Duman (2019) noted that the environments required by the authentic tasks are determined as the working area of students. At the same time, the fact that these environments are real environments where people live leads to the diversification of the social environment consisting of teachers and students in the classroom.

Arising from the above, it is worth noting that the importance of authentic learning cannot be overemphasized. Authors like Wiggins and McTighe (2011), Bruffy (2012) and Pearce (2016) all agreed that authentic activities at school

promote learning by designing learning experiences with relevance and authenticity, there enabling teachers to plan for all the objectives of teaching to be realized, allowing teachers to become “coaches of understanding, not mere purveyors of content or activity”. This attainment gives students the opportunity to address the three goals of learning: acquisition, making meaning and transfer (AMT) (Pearce, 2016). As a result, Pearce (2016) stated that students are equipped with the essential life skills, to show the connection between learning and real-life and empower them with problem solving skills that they require for life beyond school. Further to the above, Steventon (2016) and Pearce (2016) both agreed that authentic learning is able to change the dynamics of the learning environment, to “(break)” down the barriers of the classroom and the power hierarchies within it; encouraging learning communities and connections. And these are transformed in the everyday professional and personal lives, in unfamiliar situations that require problems to be solved, adaptation of own behaviors and make decisions. All these are achievable by utilizing and manipulating the knowledge already acquired, drawing upon experiences and skills to guide the choices available and in order to decide.

Review of Empirical Studies

Adult Education and Authentic Learning

According to United Nations Education Scientific and Cultural Organization (2011) adult education is:

education specifically targeting individuals who are regarded as adults by the society to which they belong to improve their technical or professional qualifications, further develop their abilities, enrich their knowledge with the purpose to complete a level of formal education, or to acquire knowledge, skills and competencies in a new field or to refresh or update their knowledge in a particular field. This also includes what may be referred to as ‘continuing education’, ‘recurrent education’ or ‘second chance education’.

Kapur (2019) stated that adult education concept has undergone changes. Therefore, it includes the entire body of educational processes, the content, methods or levels or whether they prolong or replace initial education in schools, colleges or universities, as well as apprenticeship. Furthermore, it refers to:

all the activities that are put into operation with the purpose of meeting educational goals and objectives. Through adult education, the learners are able to augment their experiences and develop skills and abilities. Apart from development of knowledge and skills, individuals are able to generate awareness

in terms of their rights and duties, which are required to turn into effectual citizens of the country (Kapur, 2019).

Based on the scope of adult education and features of the learners, the learners can best assimilate the knowledge taught, make connections between concepts not by memorizing but by reference to an experiential context which is similar to authentic learning (Hardy, 2005; Floreaa, 2014). Shiddike (2017) also identified that adult teaching methods differ greatly from teaching other learners. Hence, the learning needs of adults can only be achieved by engaging teachers with very strong pedagogical knowledge that is backed up with the curricula that emphasizes lifelong and experiential learning, real life situations attainable through participation and communication with the society at large. With this, the subjective ideas, presumptions and opinions generated towards the curriculum which can enhance the delivered content for adult learners upholds the fact that authentic teaching and learning is the strategy required (Hardy, 2005; Floreaa, 2014; Shiddike, 2017).

Kleinert and Matthes (2009) and Floreaa (2014) stated that authentic teaching and learning provide the framework for continuous and lifelong learning. Integrating lifelong learning of adults to authentic teaching framework, they argued that:

adult education argue that according to cognitive psychology paradigms, continuous learning - the setting of adult education can take two connotations, namely: adaptation to a particular set of information to a particular model and improvement of a specific skill set by adding new datum or a distinctive conceptualization. In terms of capacity development for a teaching career, lifelong learning relates to the first definition - adaptation information. From a practical standpoint, adults generally do not learn theoretical models and practical behaviors from the education system but rather adapt their own vision on a standard context (that of the classroom). Once the initial training is understood and internalized by future teachers entering the education system, the framework is based on the continuous learning based on improvement. The acquired skills are filtered and applied subjectively by the relevance they have to the method used by each teacher (p.354).

Lucu and Marin (2014) stated that authentic learning is related to strategies such as personalized learning, community-based learning, and project-based learning, among others. In addition, instructional strategies such as demonstrations of learning, capstone project, personal learning plans, and portfolios that are the core of undergraduate adult education programs. To this end, to achieve effective teaching and learning outcomes in undergraduate adult education program, there are

pathways that must be governed by activities in which students have the opportunity to learn related skills in the areas such as critical areas of knowledge of real-life situation, participatory group strategies, and communication with real world audience. Therefore, undergraduate adult education students being taught with authentic teaching strategy should be made to become aware of the relevancy and meaningfulness of the critical areas of study that focus on critical thinking, problem solving, formal scientific observation, note taking, research methods, writing, presentation techniques, and public speaking. Furthermore, lucu and Marin (2014) stated that students can also implement knowledge in genuine ways that practicing professionals implement knowledge and skill. Moreover, students help decide what should be learned, the curriculum moves from one that is extrinsically imposed to one that is intrinsically driven, and the primary vehicle for learning is through inquiry and discovery. It is stated that when learning is presented as a process of discovery around an authentic task, students are thought to develop problem-solving skills and confidence in their own learning abilities.

Theoretical Framework

This study is based on Constructivist theory by Jean Piaget. Constructivist theory proposes that learning is an active and social procedure in which learners use their prior knowledge as a basis for constructing new knowledge and integrating learning into realistic and meaningful contexts. This theory recognizes that practical teaching strategies and learning opportunities where learners internalize new experiences and knowledge into their existing schema help learners to internalize and reshape, or

transform new information. Therefore, this link corresponds with authentic learning strategy for adult education students because authentic learning methods/environments help accomplish the monumental task of connecting new knowledge to existing knowledge by encouraging students to make direct connections between their new learning and the real world in which they live.

Method, Instrumentation and Data Analysis

This study is a descriptive survey design. The population of the study is the undergraduate adult education students in a public university in Ogun state, Nigeria. Purposive and simple random sampling methods were adopted to select one hundred and twenty respondents from the population of undergraduates of adult education program. An adapted instrument "Authentic Teaching and Learning Outcomes of Adult Education Questionnaire" was designed for the study. The instrument was given to experts in adult education, measurement and evaluation for scrutiny and to assess the structuring, adequacy and spread of the content items so as to further enhance its validity. These served as additional inputs towards the production of a final draft which was subjected to Cronbach Alpha test of internal consistency to generate the validity index of the instrument.

The reliability of this instrument was done using the test-retest method within an interval of sixty days. A pilot test was carried out by administration of the instrument to some students of a private university who were not part of the population of the study. Copies of the questionnaires returned were subsequently subjected to Cronbach Alpha test of internal consistency, which yielded 0.86.

Results and Discussion

Table 1: Demographic Data.

| S/N | Demographic Variables | Frequency | Percentage |
|-----|-----------------------|-----------|------------|
| | Gender | | |
| 1 | Male | 57 | 47.5 |
| 2 | Female | 63 | 52.5 |
| | Total | 120 | 100 |
| | Age | | |
| 1 | 16-18 | 15 | 12.5 |
| 2 | 19-21 | 60 | 50 |
| 3 | 22-24 | 29 | 24.2 |
| 4 | 25-27 | 16 | 13.3 |
| | Total | 120 | 100 |

Source: Field Data (2021)

Table 1 above shows that a total of one hundred and twenty respondents participated in the study. Data generated reveals that they were made up of 57 male i.e 47.5% and 63 female i.e 52.5%. The age distribution shows that five (15) i.e

12.5% of the respondents were between 16-18 years, sixty (60) i.e 50% were between 19-21 years, twenty-nine (29) i.e 24.2% were between 22-24 years old, while sixteen (16) i.e 13.3% were within the range of 25-27 years.

Table 2.0. Correlation Matrix on Relationship between Authentic Teaching Strategy and Learning Outcomes of Undergraduate Adult Education Students

| | Authentic Teaching Strategy | Subject/ Content Knowledge | Knowledge of Real-Life Situation | Participatory Group Strategies | Communication Skills for Real World Audience |
|--------------------------------------------------------|------------------------------------|-----------------------------------|-----------------------------------------|---------------------------------------|-----------------------------------------------------|
| 1. Authentic Teaching Strategy | 1 | | | | |
| 2. Subject / Content Knowledge | .872** | 1 | | | |
| 3. Knowledge of Real-Life Situations | .998** | .0725 | 1 | | |
| 4. Participatory Group Strategies | .988** | .632** | .053 | 1 | |
| 5. Communication Skills for Real World Audience | .975** | .673** | .165 | .076 | 1 |

0.05 Significance Level **

Table 2 above shows the relationship between the independent variable that is authentic teaching strategy and the dependent variables learning outcomes, which are subject/content knowledge, knowledge of real-life situation, participatory group strategy and communication skills for real world audience. Authentic teaching strategy has significant positive relationship with subject/content knowledge (r.872), knowledge of real-life situation (r.998), participatory group strategy (r. 988) and communication skills for real world audience (r.975). Based on these, all the three null hypotheses tested at 0.05 level of significant were rejected.

The significant relationship between authentic teaching strategy and subject/content knowledge (r.872) corroborates the earlier finding of Interiano, Tkacik, Dahlberg and Lim (2018) which identified that authentic teaching strategy promoted better organization and presentation of subject/content thereby leading to high subject/content knowledge assimilation which ultimately maximized student's learning outcomes. Also, the significant relationship between authentic teaching strategy and knowledge of real-life situation (r.998) corroborates the earlier finding of Huang, Tindall and Nisbet (2011) which established that it influenced cognition, engagement, collaboration, problem solving, critical analysis the needs and interests of students that enhanced real life tasks.

It further affirms the findings of Aynas (2018) that established that authentic teaching strategy facilitated associating course subjects with real-life situations.

Furthermore, the significant relationship between the independent variable and participatory group strategy (r. 988) corroborates a finding of the study of Iucu and Marin (2014) which showed that adult education students taught using authentic teaching strategy displayed participatory skills for helping clients deal with the real-world problems by the application of knowledge acquired within a culture similar to the applied setting. This result also agrees with the earlier finding of Coşkun, Doğan and Uluy (2017) which identified that authentic teaching strategy encouraged students to participate more actively in classes. The significant relationship between authentic teaching strategy and communication skills for real world audience at (r.975) is similar to the finding of Purcell-Gates, Degener, Jacobson and Soler (2002) and De Vito (2009) which showed that adult education students reported changes in the literacy and communication skills based on the authentic teaching strategy which impacted on them. This result further confirms the earlier finding of Güneş, Arıkan, Adnan, and Çetin (2020) that linked authentic learning activities to outcomes like strategic thinking and communication

skills. However, the dependent variables also interacted with each other with (r.053), (r.165) and (r.076), however, they did not show significant relationship.

Conclusion

This paper investigated the relationship between authentic teaching strategy and learning outcomes of undergraduate adult education students in a public university in Ogun state, Nigeria, contributing to the existing literature on how authentic teaching strategy affects undergraduate's learning outcomes in subject/content knowledge, knowledge of real-life situation, participatory group strategies and communication skills for real world audience. The main analysis demonstrated that the independent variable has positive relationship with the dependent variables, wherein, an increment in the independent variable produces positive corresponding increment in each of the four dependent variables of the learning outcomes in this study. The findings are meaningful and will contribute to the growing literature because it shows that the veritable tool required by undergraduate adult education students to achieve positive learning outcomes that will enhance professional job performance in real life situations is through authentic teaching strategy. Considering a policy perspective, the results suggest that emphasizing authentic teaching strategy and learning activities in undergraduate adult education programs might be the best approach for enhancement of positive learning outcomes. That is, it is reasonable to integrate this strategy in adult education programs in the university level to avail the students with the opportunities in the curricula that emphasize lifelong learning, real life situations attainable through participation and communication with the society at large.

The limitation of this study is that it is constrained by scarce fund thereby restricting the samples of population studied to adult education undergraduates of a public university. However, this study may be up scaled in the nearest future when there is improvement in the availability of fund. It is pertinent to state that the variables of the study will continue to receive attention from researchers for a long time to come. Therefore, researchers should attempt to address further understanding of authentic teaching, learning outcomes in adult education and the impacts on adult learners in our dynamic society. It is recommended that the Nigeria government and international donor agencies should direct more funds towards the improvement in university undergraduate adult education teaching, learning outcomes and effective curriculum implementation for better service delivery to the society.

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