

ANALYSIS OF LEARNING STYLE PREFERENCES OF ADULT LEARNERS IN ADULT LITERACY CENTRES IN ONITSHA AND NNEWI URBAN OF ANAMBRA STATE

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Abstract

This study is a descriptive survey research aimed at identifying the learning style preferences of adult learners in Adult Literacy Centres in Onitsha and Nnewi Urban. The sample of the study constituted 800 adult learners. Learning Style Preference Survey (LSPS) was the instrument used for data collection. The reliability co-efficient of the Instrument stood at 0.98 when computed using contingency coefficient C. Research question was analyzed using frequency counts and percentages. The hypothesis was tested at 0.05 level of significance using χ^2 statistics test. The findings include that: (i) Adult learners preferences varies in these areas; bright light, informal arrangement of chairs, cool room, small group study, food intake, sitting quietly, visual aids, personal involvement during study. (ii) Differences exist in the preferred styles of adult learners offering arts and those offering science subjects in their preferences for room design, visual/auditory element, tactile/kinesthetic. Based on the findings, recommendations were made.

The primary objective of instruction in any school is to bring certain desirable changes in the behaviour of individuals through the process of learning. This process of learning begins from the birth of a child and continues till his death. Learning as seen by Oladele (1995), is defined as a relatively permanent change in behaviour which is traceable to exposure to conditions in the environment, experience or practice. Keefe (1987), saw learning as an interaction process, the product of student and teacher activities within a specific learning environment. These activities, which are the central elements of the learning process, show a wide variation in pattern, style and quality. Individuals learn in various ways hence the existence of individual differences in their styles of learning. Learning style is an aspect of individual differences that is seen among learners. Educators believe in the uniqueness of each learner and emphasize that each learner learns in unique ways. Students have different ways of learning: by reflecting, listening, seeing, acting, note-taking, intuitively etc.

Kolb (1984), developed his LSI (Learning Style Inventory) an instrument for analyzing the conditions under which students prefer to learn, which describes a learning process and a style. The instrument is used in training design, in determining career paths and measures the four learning modes: Concrete Experience (CE), Reflective Observation (RO), Abstract Conceptualization (AC) and Active Experimentation (AE). These refer to learning by feeling, learning by watching and listening, learning by thinking and learning by doing. It identifies the four learning style types as Converger (thinking), Diverger (feeling), Assimilator (watching) and Accomodator (doing).

Gardner (1983, 1993) declared that not only do individuals possess numerous mental representations and intellectual languages but individuals also differ from one another in the forms of these representations, their relative strengths and the ways in which (and ease with which) these relative strengths can be changed.

Dunn and Dunn (1984), found that learning styles were not affected by just one aspect of the learning environment. They contended that learning styles depend on a person's environment, physical, psychological, emotional and sociological characteristics. These five stimuli categories contain twenty – one (21) elements: Environmental stimuli/characteristics include light, sound, temperature and design. Physical characteristics include perceptual strengths, food intake, time of the day, mobility. Psychological characteristics include global and analytic element. Emotional characteristics include motivational level of student; whether a student is intrinsic or extrinsic motivated, persistence elements. Sociological characteristics include self element; working alone or in pair or group, peers or team.

Deing (2004), defined learning styles as the way in which each person begins to concentrate, process, internalize and remember new and difficult academic content. American Association of School Administrators (1991), viewed learning styles as the ways individual students learn best. Learning style in this context is the different ways by which different learners concentrate, process, absorb, and retain, new and difficult information. These learning styles change as individuals develop from one stage of life to another. Children and adolescent styles of learning differ from adults styles of learning. This shows that as individuals grow into adulthood, their learning styles also change.

Adulthood is a period of life in human development or existence which starts immediately after the end of adolescent stage. Ikediashi (1998), pointed out that adulthood is divided into three distinct periods of early or young adulthood (age twenty- forty), middle adulthood (age forty-sixty) and old age (sixty-five and above) Knowles (1973), Westmeyer (1988), Cantor (1992), Cranton (1992), and Burns (1995), emphasized that adults are often likely to display characteristics quite different from those of children and adolescents and they should not be treated like children in any way. Furthermore, they prefer to have some degree of control on learning and they are voluntary learners, hence adult education should be mostly student-centered and not teacher-centered. The whole educational activities should predominantly be turned on them. They should be involved in selecting their best method of learning so as to motivate them and maximize their learning capabilities.

In the 1970's and 80's, the Federal Government of Nigeria campaigned for mass literacy thus introducing Adult Education Programme as the best tool to eradicate it. Adults who dropped out of school because of one reason or the other found it necessary to continue their education to acquire skills and knowledge. Some of them who registered in adult literacy centres appeared frustrated as their aims seem unrealizable. Observations show that teachers in these centers appear not to use adult learning principles but rather use traditional lecture methods, making the educational activities teacher-centered instead of student-centered to accommodate these adult learners. Thus the need to identify the preferred styles of adult learners, which when considered in planning instructional procedures, will help make learning more relevant and meaningful to them.

Purpose

The general purpose of this work was to identify the learning style preferences of adult learners. Specifically, this work will try to identify the preferred styles of adult learners who are Arts – inclined and those who are Science – inclined.

Research Question

What are the learning style preferences of adult learners in Onitsha and Nnewi urban as measured by Learning Style Preference Survey (LSPS).

Research Hypothesis

There is no significant difference between the preferred learning styles of adults who are Arts-inclined and those who are Science-inclined.

Methodology:

This study is a descriptive survey research design carried out in Onitsha and Nnewi Urban Adult Literacy Centres. The population of the study was made up of 2,430 SS 11 Adult learners in the 28 approved private-owned adult literacy centres in Onitsha and Nnewi Urban of Anambra State. A sample of 800 students was drawn from the twenty- five (25) out of the 28 schools using proportionate stratified random sampling based on gender strata.

The instrument used for data collection was titled “Learning Style Preference Survey”. It was patterned after Dunn, Dunn and Price (1984), instrument titled Productivity Environment Preference Survey (PEPS). Some changes were made in the instrument to suit the environmental condition of the research work. The instrument was divided into two sections: A and B. Section “A” sought the background information of the sampled adults. Section “B” was concerned with statements to obtain information on the adults preferred styles of learning. The research instrument was made up of thirty – four (34) items divided into four factors with twelve sub-scales:

- i. Interpersonal characteristics (self and group oriented)
- ii. Environment characteristics (sound, light, design, temperature)
- iii. Physical characteristics (intake, time, mobility, visual, auditory, tactile, kinesthetic)
- iv. Psychological characteristics (Global and Analytic)

The respondents were asked to answer the questions as they relate to their best ways for absorbing new information, ideas, or deal with day to day situation. The data obtained were analyzed using frequency counts and percentages for research questions and chi-square (χ^2) for research hypothesis.

Reliability

The reliability co-efficient of the instrument stood at 0.98 when computed. This was done through test-retest method involving 50 adult learners in SS II from five Adult Literacy Centres in Nkpor. They were given the instrument LSPS and after an interval of two weeks, a second test was administered to them. Data collected were analyzed using contingency coefficient C to obtain the reliability co-efficient of the instrument.

Method of Data Collection

Copies of the questionnaire were administered by hand and were collected back immediately after the respondents have completed the questionnaire.

Results, Interpretations and Discussion

Research Question: What are the learning style preferences of adult learners in Onitsha and Nnewi Urban as measured by LSPS?

Table 1: Frequency Counts and Percentages of Preferred Style of Adult Learners in Onitsha and Nnewi Urban.

SN	Environmental Factors/Stimuli preferences	Frequency counts	Percentages
Sub-scale one: Sound			
1.	I prefer studying while playing cool music	277	34.6%
2.	I don't play music when I am studying	263	32.8%
3.	I can study with or without any cool music.	260	32.5%
Sub-Scale Two: Light Preference			
1.	Prefers bright light	424	53%
2.	Can study with any type of light	244	30.5%
3.	Prefers dim light	132	16.5%
Sub-Scale Three: Room Design.			
1.	Prefers informal arrangement of chairs	352	44%
2.	Prefers normal classroom arrangement	300	37.5%
3.	Prefers using mat, foam or sitting on the floor	148	18.5%
Sub-Scale Four: Nature of Room Temperature.			
1.	Prefers cool room	422	52.7%
2.	Warmer or warm room preference	158	19.7%
3.	Prefers any type of room temperature	220	27.5%
Interpersonal Factor/Stimuli Preference			
Sub-scale five: Group Oriented Study			
1.	Prefers working with two or three persons	548	68.5%
2.	Prefers large group discussion	252	31.5%
Physical Stimuli Preferences			
Sub-Scale Six: Time Preference			
1.	Morning hours preference	246	30.7%
2.	Evening hours preference	240	30%
3.	Afternoon hours preference	154	19.2%
4.	Anytime of the day preference	160	20%
Sub-Scale Seven: Food Intake			
1.	Prefers eating and studying	400	49.9%
2.	Prefers studying without eating	186	23.3%
3.	Can study with or with out eating	214	26.7%
Sub-Scale Eight: Mobility Preference			
1.	Prefers walking around while studying	180	22.5%
2.	Prefers sitting quietly while studying	390	48.7%
3.	Prefers either to sit down or walk around	230	28.7%
Sub-Scale Nine: Visual/Auditory Element			
1.	Prefers visual aids	350	43.7%
2.	Prefers auditory learning	190	23.7%
3.	Prefers both visual aids & auditory learning	260	32.5%
Sub-Scale Ten: Tactile/Kinesthetic			
1.	Prefers note-taking during studying	171	21.3%
2.	Prefers personal involvement during studying	360	45%
3.	Prefers either note-taking or personal involvement	269	33.6%
Psychological Stimuli Preference			
Sub-Scale Eleven: Global Oriented Preferences			
1.	Prefers short stories	383	47.8%
2.	Prefers learning using dramatization	417	52.1%
Sub-Scale Twelve: Analytic Oriented			
1	Step by step presentation of topic	400	50%
2	Prefers general explanation of a topic.	400	50%

The frequency counts and percentages of adult learners learning styles (table I) reveals that, out of the 12 sub-scales considered, adult learners show definite preference for ten while no preference was shown for 2; percentage score of less than 40% indicated this, thus adult learners preferences include: bright light preferences 53%, preference for informal room arrangement 44%, preference for cool room 52.7%, preference for small group study 68.5%, preference for food intake 49.9%, preference for sitting quietly 48.7%, preference for visual aids 43%, preference for personal involvement during studying 45%, prefers short stories 47.8%..

Research Hypothesis

There is no significant difference between the preferred learning styles of adults who are Arts-inclined and those who are Science - inclined.

Table 2: X² Statistics of Difference between the Adult Learners' Subjects of Study and Their Preferred Styles of Learning.

S/N	Sub-scales	X ² cal	X ² -crit	Df	Decision
1.	Sound preference	8.76	5.99	2	Rejected
2.	Light preference	76.29	5.99	2	Rejected
3.	Room arrangement	84.41	5.99	2	Rejected
4.	Nature of room temperature	12.91	5.99	2	Rejected
5.	Group oriented preference	5.56	3.84	1	Rejected
6.	Time preference	20.52	7.82	3	Rejected
7.	Food intake	8.68	5.99	2	Rejected
8.	Mobility preference	3.24	5.99	2	Accepted
9.	Visual/auditory preference	30.82	5.99	2	Rejected
10.	Tactile/kinesthetic preference	41.24,	5.99	2	Rejected
11.	Global oriented preference	0.1,	3.84	1	Accepted
12.	Analytic –oriented preference	12.0	3.84	1	Rejected

χ^2 statistical calculation in table 2 reveals that the critical values of sub-scale 8 and 11 exceed the calculated value; the null hypothesis is accepted for these items while for other-sub-scales; 1, 2, 3, 4, 5, 6, 7, 9, 10 and 12, the calculated value exceeds the critical values; the null hypothesis for these items were rejected. This implies that significant differences' exist in the adults learners subject of study and their preferences in sound, light, room arrangement, nature of room temperature, group oriented study, time, food intake, visual/auditory, tactile/kinesthetic and analytic-oriented styles of learning. Thus adults subjects of study influence their preferences in these styles of learning.

Discussion

The findings of this study revealed that adult learners show variations in their preferences for learning. In this study, these preferences are organized under four factors or stimuli preferences with twelve sub-scales. It was also found that each adult learner show preference for about two or more stimuli preferences used for the study.

The work revealed that generally, adult learners indicated preference for bright light during study, informal room arrangement, cool room, small group study, food intake, sitting quietly, visual, aids, personal involvement during study, dramatization, short stories and step by step presentation of a topic during study. These findings appear to agree with Dunn, Dunn's and Price (1984), work who identified a series of twenty-one (21) learning style elements or preferences of learners across five stimuli preferences. Other researchers like Kolb (1984) and Gardner (1983, 1993), support the view of identifying preferred styles of learning and also accommodating various types of learners in planning instructional procedures.

Conclusion

The dropping-out of some adult learners who intend to make-up through the Adult Education Literacy Programme led to this study. Learning Style Preference Survey (LSPS) was used to identify

the preferred styles of adult learners which when considered in planning instructional procedure for them will make learning meaningful, relevant and more attractive to them. Eventually the findings indicated that; adult learners show variations in their preferences for learning in these areas; bright light, informal room arrangement, cool room, small group study, food intake, sitting quietly, visual aids, personal involvement during study, dramatization, short stories, step by step presentation of a topic.

Significant differences exist between adult preferred styles and subjects of study in their preferences for sound, light, room arrangement, room temperature, group study, time, food intake.

Recommendation

- i. Proprietors and proprietresses of these schools should provide generators for the schools use since the schools' hold at night.
- ii. Adult learners should be allowed to select their preferred ways of learning and should be involved in organizing the classroom in the way that suits everybody's preference.
- iii. Excursions should be organized on weekend basis for these adult learners where they would see things for themselves, example, science students can go, see and use some of the laboratory instruments in the regular government schools.

References

- American Association of School Administrators (1991). *Learning styles: putting research and common sense into practice*. Arlington, VA.
- Cantor, J. A. (1992). *Delivering instruction to adult learners*. Toronto: Wall and Emerson.
- Cranton, P. (1992). *Working with adult learners*. Toronto: Wall and Emerson.
- Deing, S. (2004). Multiple intelligences and learning styles: two complementary dimensions. *Teachers college records*. 106, (96 - 111).
- Dunn, R., Dunn, K. & Price, G. E. (1984). *Learning style inventory manual*. Lawrence, K. S.: Prince Systems, Inc.
- Dunn, R. & Dunn, K. (1984, Nov, Dec.). *Ten ways to make the classroom a better place to learn*. instructor. Pp. 84 – 88, 139.
- Gardens, H. (1983). *Frames of mind: the theory of multiple intelligence* (2nd Ed). New York: Basic Books.
- Gardner, H. (1993). *Frames of mind: the theory of multiple intelligences* (10th Ed). New York: Basic Books.
- Ikediashi, A. E. (1998). Nature and theories of human development in A. E. Ikediashi & Iroegbu, T. C. (Ed). *Determinants of human behaviour and learning*. Onitsha: Cape Publishers Int. Ltd, 61 – 73.
- Kefee, J. W. (1987). *Theory and practice* 'reston va: national association of secondary school principals.
- Knolwes, M. S. (1973). *The adult learner: A neglected species*. Huston, T. X.: Gulf Publishing Company.
- Kolb, D. A. (1984). *Learning as the so-of-lee development*. New Jersey: Prentice – Hall, Inc.

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Oladele, J. O. (1985). *Fundamental of psychological foundations of education: A handbook for education students and teachers* (3rd Ed). Lagos: John-Lad Publishers Ltd.

Westmeyer, P. (1988). *Effective teaching in adult and higher education*. Springfield, IL: Charles Thomas