

INFLUENCE OF GENDER ON LEARNING PREFERENCES OF ADULT LEARNERS IN ADULT LITERACY CENTRES IN ONITSHA AND NNEWI URBAN OF ANAMBRA STATE

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Abstract

This study, descriptive survey research was concerned with identifying the influence of gender on learning style preference of Adult learners in Onitsha and Nnewi Urban. A total of eight hundred (800) adult learners constituted the sample of the study. Learning Style Preference Survey (LSPS) was the instrument used for data collection. The instrument was duly validated and reliability co-efficient of 0.98 was obtained using Contingency Coefficient C. Research question was answered using frequency counts and percentages while the hypothesis was tested at 0.05 level of significance using χ^2 statistics test. Findings include that: significant differences existed between adults preferred styles and gender in their preferences for light, room arrangement, nature of room temperature, mobility, visual/auditory, kinesthetic/tactile, analytic oriented study. Based on the findings, recommendations were made.

Learning is an integral part of human life and existence. Once a child is born, learning takes off and continues till death. The purpose of learning is to bring desirable changes in human behaviour.

Encyclopedia Wikipedia (1998), defined learning as the process of gaining understanding that leads to the modification of attitudes and behaviours. Learning also brings about change in behaviours that is persistent, measurable, specified and allows an individual to formulate new mental constructs or revise prior mental construct.

Traves (1977), defines learning as a relatively permanent change in a response as a result of exposure to stimuli. Learning in this context is seen as the process of gaining understanding through interactions with the conditions in the environment. Interactions with environmental conditions for the purpose of learning vary as individuals vary. This implies that all individuals do not gain understanding in the same way as a result of differences in their styles of learning.

Thies (1979), defined learning style as a biologically and developmentally imposed set of personal characteristics that make a teaching method effective for some and ineffective for others. Different individuals learn best in different ways, consequently no one approach to instruction will suit all individuals. Some individuals learn best through visual, doing or auditory. Whilst others learn through discussions, role play, projects, lectures etc.

Hayes and Allison (1993), explained that teaching methods also vary. Some instructors lecture, other demonstrate or lead students to self-discovery, some focus on principles and others on applications; some emphasize memory and others understanding. If mismatches occur between learning styles of most students in a class and the teaching style of the teachers, the students may become bored and inattentive in class, do poorly on tests, get discouraged about the course, the curriculum and themselves and in some cases change to other curricular or drop out of school, but if a balance is achieved between the instructional methods and the students learning styles, all students will be taught in a manner they prefer, which leads to an increased comfort level and willingness to learn.

Dunn and Dunn (1992) emphasized that matching the way individuals learn (to meet the needs of a variety of learning styles) with the instructional strategies which provide these opportunities will maximize learning and benefit all students. In essence, educators must learn to base programs on the differences that exist among students rather than on the assumption that everyone

learns the same way. In fact, the rationale behind learning styles according to Dunn and Dunn (1978), is if a student does not learn the way we teach him, we must teach him the way he prefers to learn.

Learning style varies and changes as one moves from one developmental stage to another. Thus children's styles of learning differ from that of adolescents and adults, likewise adolescents styles differ from that of adults. Longman Dictionary of Contemporary English (2000), defined an adult as someone who is old enough to be considered legally responsible. Ikediashi (1998), stressed that adulthood is the stage of great challenges and insight. Also he pointed out that adults are capable of taking decisions about their life spiritually, socially, cognitively and emotionally. Mussen, Conger, Kogan and Geiwitz (1979) in Unachukwu and Ebenebe (1997), pointed out that adulthood is divided into three distinct periods of early or young adulthood (age twenty-forty), middle adulthood (age forty to sixty) and old age (sixty-five and above). Lovell (1980), asserted that adult learners are unique and possess unique characteristics that make them to learn in unique ways.

Mathews and Hamby (1995), examined the relationship between gender and learning styles among 501 pharmacy students. The researchers found that the sample of male students in the study preferred abstract conceptualization and active experimentation. Females preferred to generate ideas. In another study carried out by Nnaka and Anaekwe (2002), on the gender difference in the learning styles of low and high achievers in science, a sample of 1,064 students was randomly drawn from three out of the five education zones in Anambra State, the researcher found that a significant difference existed between the proportion of male and female students who utilized the collaborative and independent learning styles, unlike the proportions that utilized the Dependent and Avoidant learning styles. Also a greater proportion of female were collaborative while the males were independent.

According to Dunn and Dunn (1984), some physical elements of adult learners style which include such things as perceptual strengths, food intake, time of the day, mobility. Perceptual strength refers to preference for learning through; (i) auditory activities: (ii) listening to tapes, lectures and music; (iii) visual materials viewing pictures, maps; (iv) tactile and kinesthetic involvement: note taking, projects, model building. Food intake is concerned with the need to eat, drink, chew gum while engaged in learning activities. Time element: preferences for working on a task that needs concentration in the morning; afternoon or evening; mobility: preference for sitting quietly, standing or walking around during study can affect how well female or male adult's learners achieve. Thus the need to identify the preferred ways adult males and adult females learn best so as to maximize their learning capabilities.

Purpose

The purpose of this study was to determine the learning style preferences of adult males and females.

Research Question

What are the learning style preferences of adult males and adult females as measured by LSPS

Research Hypothesis

There is no significant difference between the preferred styles of learning of adult males and females.

Methodology:

This study is a descriptive survey research 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.

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The instrument used for data collection was a questionnaire titled “Learning Style Preference Survey”. It was patterned after Dunn, Dunn and Price (1984), instrument titled “Productivity Preference Survey” (PEPS). Some changes were made in the instrument to suit the environmental condition of the research work. The instruments was divided into two sections: A and B. Section “A” sought the background information of the sampled adults. Section “B” was concerned with statement 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 hypotheses.

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.

Result and interpretation

Research Question: What are the learning style preferences of adult males and adult females as measured by LSPS?

Table I: Frequency counts and percentages of adult males and females preferred styles of learning.

S N	Environmental Factors/Stimuli preferences	Males N = 440		Female N = 360	
Sub-scale one: Sound					
1	I prefer studying while playing cool music	160	36.4%	117	32.5%
2	I don't play music when I am studying	140	31.8%	123	34.2%
3	I can study with or without any cool music.	140	31.8%	120	33.5%
Sub-Scale Two: Light Preference					
1	Prefers bright light	264	60%	160	44.4%
2	Can study with any type of light	136	30.9%	108	30%
3	Prefers dim light	40	9.1%	92	25.6%
Sub-Scale Three: Room Design.					

1	Prefers informal arrangement of chairs	212	48.2%	140	38.8%
.					
2	Prefers normal classroom arrangement	180	40.9%	120	33.3%
.					
3	Prefers using mat, foam or sitting on the floor	48	10.9%	100	27.7%
.					
	Sub-Scale Four: Nature of Room Temperature.				
1	Prefers cool room	260	59%	162	45%
.					
2	Warmer or warm room preference	80	18.1%	78	21.6%
.					
3	Prefers any type of room temperature	100	22.7%	120	33.3%
.					
	Interpersonal Factor/Stimuli Preference				
	Sub-scale five: Group Oriented Study				
1	Prefers working with two or three persons	300	68.1%	248	68.8%
.					
2	Prefers large group discussion	140	31.8%	112	31.1%
.					
	Physical Stimuli Preferences				
	Sub-Scale Six: Time Preference				
1	Morning hours preference	126	28.6%	120	33.3%
.					
2	Evening hours preference	140	31.8%	100	27.7%
.					
3	Afternoon hours preference	90	20.4%	64	17.7%
.					
4	Anytime of the day preference	84	19.1%	76	21.1%
.					
	Sub-Scale Seven: Food Intake				
1	Prefers eating and studying	222	50.4%	178	49.4%
.					
2	Prefers studying without eating	108	24.5%	78	21.6%
.					
3	Can study with or without eating	110	25.9%	104	28.8%
.					
	Sub-Scale Eight: Mobility Preference				
1	Prefers walking around while studying	60	13.6%	120	49.4%
.					
2	Prefers sitting quietly while studying	230	52.2%	160	44.4%
.					
3	Prefers either to sit down or walk around	150	34.1%	80	22.2%
.					
	Sub-Scale Nine: Visual/Auditory Element				
1	Prefers visual aids	234	53.2%	116	32.2%
.					
2	Prefers auditory learning	100	22.7%	90	25.0%
.					
3	Prefers both visual aids & auditory learning	106	24.1%	154	42.7%
.					
	Sub-Scale Ten: Tactile/Kinesthetic				
1	Prefers note-taking during studying	111	25.2%	60	16.6%

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2	Prefers personal involvement during studying	230	52.2%	130	36.1%
3	Prefers either note-taking or personal involvement	99	22.5%	170	47.2%
Psychological Stimuli Preference					
Sub-Scale Eleven: Global Oriented Preferences					
1	Prefers short stories	215	48.8%	168	46.6%
2	Prefers learning using dramatization	225	57.1%	192	53.3%
Sub-Scale Twelve: Analytic Oriented					
1	Prefers step by step presentation of topic	180	40.9%	220	61.1%
2	Prefers general explanation of a topic.	260	59.1%	140	38.8%

The frequency counts and percentages of adult learners learning style preferences were presented in their subscales. The number of adult males were 440 while the number of the adult females were 360. Table I reveals that out of the twelve sub-scales, adult males indicated preferences for 8 while they did not show any preference for 4; female adult learners indicated preferences for 8 and no preference was shown for 4. Any percentage score of less than 40% was not accepted. Thus male adult learners preferences include: bright light= 60% informal arrangement of chairs = 48.2%, normal classroom arrangement = 40.8% cool room = 59%, small group study = 68.1%, eating while studying = 50.40%. Sitting quietly while studying = 52.2%, visual aids = 53%, personal involvement during study = 52.2%; while learning style preferences of adult females include: bright light = 44.4%, cool room = 45%, small group study = 68.8%, eating while studying = 49.4%, sitting quietly while studying = 44.4%, visual aids and auditory learning = 42.7%, step by step presentation of a topic = 61%.

Hypothesis:

There is no significant difference between the preferred styles of learning of adult males and adult females as measured by L.S.P.S. The null hypothesis was tested at 0.05 level of significance.

Table 2: χ^2 (chi-square) Statistics of Difference Between the Preferred Styles of Learning of Adult Males and Females.

S/ N	Sub-scales	χ^2 cal	χ^2 - crit	df	Decision
1	Sound preference	1.92	5.99	2	Accepted
2	Light preference	41.57	5.99	2	Rejected
3	Room arrangement	37.37	5.99	2	Rejected
4	Nature of room temperature	16.79	5.99	2	Rejected
5	Group oriented preference	0.04	3.84	1	Accepted
6	Time preference	3.63	7.82	3	Accepted
7	Food intake	1.87	5.99	2	Accepted
8	Mobility preference	46.34	5.99	2	Rejected
9	Visual/Auditory Preference	41.58	5.99	2	Rejected
10	Tactile/Kinesthetic Preference	54.26	5.99	2	Rejected
11	Global Oriented Preference	0.41	3.84	1	Accepted
12	Analytic –oriented”	32.32	3.84	1	Rejected

χ^2 statistical calculation in table 2 reveals that the critical values of sub- scale 1, 5,6, 7 and 11 exceeds the calculated value, the null hypothesis was accepted for these items whereas for sub-scales:

2,3,4,8,9,10 and 12 the calculated value exceeds the critical value; null hypothesis for these items were rejected. This implies that significant differences exist in the learning style preferences of adult males and females learners in their preferences for light, room arrangement, room temperature, mobility, visual/auditory element, tactile/kinesthetic and analytic-oriented preference. In other words, these preferences depend on the gender of the individuals. Thus gender influences adults learning style preferences.

Discussion and Conclusion

The findings of this study revealed that significant difference exist between the preferred style of adult learners and gender in their preferences for light, room design, nature of room temperature, mobility, visual/auditory, tactile/kinesthetic and analytic oriented study, while no significant differences exist in the adults preferred styles and gender in their preferences for sound, group study, time, food intake, global-oriented study. This conclusion was based on the fact that χ^2 – cal value of the former exceeds their χ^2 – crit value. On the other hand, the χ^2 – crit value of the later exceeds their χ^2 - cal value.

This finding is in agreement with the findings of the study titled “Gender differences in learning styles of low and high achievers in Science” of Nnaka and Anaekwe (2002), who in their study found out that significant difference exists between the proportions of male and female students who utilize the collaborative and independent learning styles, unlike the proportions that utilized the dependent and avoidant learning styles. The findings also concur with the findings of Mathews and Hamby (1995), who examined the relationship between gender and learning styles among pharmacy students. They found that male students prefer abstract conceptualization and active experimentation while female students prefer to generate ideas.

Adult learners gender do not influence their preferences for sound, group study, time, food intake and global – oriented element while adult learners preferences for light, room arrangement, temperature, mobility, visual/auditory, tactile/kinesthetic and analytic – oriented element depend on the gender of the individuals. Considerations should be given to adults’ gender in planning instructional procedures for them.

Recommendations

Adult educators (teachers) should help students to identify their preferred styles and they should design variety of instructional activities to accommodate the different adult preferred styles.

Adult educators should consider the preferred styles of adults in planning instructional procedure for them.

Generators should be provided for schools use since these schools operate in the night.

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