

Communication Strategies and Socio-Economic Variables in Adult Literacy Teaching: An Experimental Research Report

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Abstract - This paper examined the relative effectiveness of three communication or instructional strategies; drama method, audio-based instructional package and conventional teaching method on the learning of selected concepts in Social Studies by adult learners in Ibadan metropolis, Oyo State, Nigeria. A 3x2x2 quasi-experimental, pre-test, post-test control group design was employed. The subjects for the study were three hundred and four (304) intermediate class adult learners from sixteen (16) purposively selected adult literacy centers in Ibadan metropolis, Oyo State, Nigeria. Three hypotheses were generated for the study and data obtained were analyzed using Analysis of Covariance (ANCOVA), Multiple Classification Analysis (MCA) and Scheffe post-hoc test. The results revealed that there was significant main effect of treatment on learners' achievement in Social Studies ($F_{(2,303)}=19.92$; $p<0.05$). It also revealed that there was a significant main effect of learners' socio-economic status on achievement in Social Studies ($F_{(1,303)}=5.225$; $p<0.05$) and learners' attitude towards social studies ($F_{(1,303)}=8.970$; $p<0.05$).

It was recommended that more of drama method and audio-based instruction should be used in an adult literacy teaching/learning situation. Also, adult learners of both low and socio-economic status should be motivated to learn using these communication strategies.

Index Term - Communication strategies, Adult literacy teaching and Socio-economic status

1 INTRODUCTION

It has been observed by Omoniyi (1996) that the greatest blessing of God to the world is the attribute of reading and writing bestowed on mankind without which the activities in the world would have been static, boring and uninteresting. An illiterate has however been described as someone that is not always capable of acquainting himself with what is going on in his country. Anyanwu (1997) claims that such an individual is also deprived of the inspiration, recreation and contact within wider world which books afford. Illiteracy is therefore considered as a cankerworm and a threat to individual and nation's development which must be totally eliminated or reduced to the barest minimum.

United Nations Development Program, UNDP (1990) therefore affirms that:

a nation is developed if the entire people in it lead a long and healthy life, acquire desirable knowledge and skills as well as having good access to resources needed for a decent standard of living. An all round national development whether social, economic, political, scientific and technological must ensure a good access to and participation in learning and building up a learning society in which open-ended, life-long learning opportunities for all continue to expand in the country.

It has also been noted by Bargevin (1967) in Augustus (2001) that if democracy (which we are practicing presently in Nigeria) is to survive, citizens must participate intelligently in the affairs of the various institutions that constitute democratic society and such intelligent participation is predicated on learning. Learning is then defined by Omokore (1998) as the activity by a person

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which causes him/her to be different in some way. The aftermath of which he/she changes his/her previous information or knowledge; does some tasks or operation differently than before or changes his/her attitude or point of view about something. In order to bring about changes in the learner or to achieve effective learning which is the hallmark of any adult literacy program, adult instructors must consider the unique characteristics of adult learners which are quite different from that of school children and other intervening variables such as learners' socio-economic status and then employ appropriate teaching methods which must be of interest to adult learners.

In the light of this, the present study examines the effect of adult learners' socio-economic status and communication or instructional strategies on the performance of adult learners in social studies.

Socio-economic Status Defined

Socio-economic variables or status (SES) as defined by American Psychological Association is often measured as a combination of education, income and occupation. It is commonly conceptualized as the social standing or class of an individual or group. When viewed through a social class lens, privilege, power and control are emphasized. Furthermore, an examination of social economic status as a gradient or continuous variable reveals inequalities in access to and distribution of resources. Social Economic Status (SES) is therefore identified as being relevant and pivotal to all realms of behavioral and social science including research, practice, education and advocacy.

In addition, socio-economic Status (SES) is also described by National Centre for Educational Statistics (2008) as an economic and sociological combined total measure of a person's work experience and of an individual's or family's economic and social position in relation to others based on income, education, and occupation. When analyzing a family's social economic status, the household income, earner's education and occupation are examined, as well as combined income, versus/ with an individual when their own attribute are assessed.

Socio-economic status is typically broken into three categories, high, middle and low to describe the three areas

a family or an individual may fall into. However, when placing a family or individual into one of these categories any of all of the three variables (income, education and occupation) can be assessed. Socio-economic status is further defined by cultural dictionary as an individual's or group's position within a hierarchical social structure. Socio-economic status depends on a combination of variables including occupation, education, income, wealth and place of residence. Sociologists often use socio-economic status as a means of predicting behavior.

Socio-economic Variables and Adult Learning

Yoloye (1999) observes that the core of education is learning. In other words, effective learning must be achieved in any teaching process. Also, educational system is described as sub-system of the social system and so besides being significant with its elements, it is as a whole significantly related to the various elements of the social system such as individual members of the society; families including clans, tribes, sects, geographical regions, economic interest groups such as different trades, occupations, professions and political factors.

In essence, the quantity, quality and distribution of teaching interact with these social factors either to achieve or defeat the main objective of adult learning which is effective learning. In the light of this, Banjo (1970) examines the relationship between a socio-economic factor (location) and learning. The finding reveals that the location of the students significantly influenced their performance. Also, the research findings of Balogun (1972) support that of Banjo (1970) whereby the geographical locations of Nigerian secondary school significantly influenced their performances in Reading Achievement.

However, Okediran (1988) also examines some socio-economic variables like occupation (trading and farming) religion (Christianity and Islam) and location (urban and rural) as they affect adult learners' achievement in Yoruba reading. The findings of the study reveal that, occupation, religion and location did not have any significant relationship with the learners' performance. Fajonyomi (1988) also distinguishes between social and economic determinants. Thus, social determinants are the inputs

which have human elements and/or signify relationship between varied human factors. Economic determinants are therefore, material, human resources and time. This study however, reveals that adult learners' socio-economic status: learners' background, possessions in the homes and number of sibling had a significant effect on their achievements in English and General paper.

Other studies on socio-economic status and educational issues like the research findings of Morgan, Farkas, Hillemeir, and Macziuga, (2009) also revealed that children from low socio-economic status households and communities develop academic skills and slowly compared to children from higher socio-economic groups. Aikens and Barbarin (2008) also found out that schools system in low socio-economic communities are often under-resourced, negatively affecting students' academic progress. Also, children from low SES environment acquire language skills more slowly, exhibit delayed letter recognition and phonological awareness, and are at risk for reading difficulties.

However for children education, it has been suggested that improving schools system and early intervention programs can help to reduce the risk factors, and thus increased research of the correlation between socio-economic (SES) and education is essential.

Further researches on SES and Academic Achievement by Coley (2002) reveal that children with higher socio-economic backgrounds were more likely to be proficient on tasks of addition, subtraction, ordinal sequencing and math word problems than children with lower SES backgrounds. Palardy (2008) revealed that students from the low SES groups learned less over 4 years than children from higher SES groups, graduating 4.3 grade levels behind those of higher SES groups.

Socio-economic status has also been considered as a variable which may or may not affect adult learning. The findings of this paper will therefore help to generalize or limit the previous findings for planning effective adult literacy teaching/learning program. In the furtherance of research on effective adult teaching/learning process, this study therefore examines the place of the learners' socio-economic status (learners' occupation/business and

location) and communication or instructional strategies: drama, audio-based instruction and conventional classroom method on their achievements in social studies.

Communication or Instructional Strategies and Adult Learning

The selection of appropriate instructional strategies is very central to the success of adult literacy education program. It is therefore imperative for adult facilitators to master various communication strategies thoroughly for each learning task, choose and apply them carefully so that learners can learn effectively. Communication or instructional strategies refer to the processes and techniques or methods of transmitting facts, skills, information and knowledge to the learners so as to achieve learning. For the purpose of this experimental study, communication strategies such as drama, audio-based instruction and the conventional teaching method were employed in teaching adult learners.

Drama in Adult Teaching/Learning Situation

Drama in adult literacy teaching/learning situation can be described as contextualizing theatre in developments, since education is a development program. Adebayo (1997) consequently describes drama as a traditional form of entertainment which can be used as inexpensive teaching medium. It is entertaining, interesting, participatory, functional and developmental. Adult learners have therefore, been observed to learn better when the method of instruction is interesting, participatory and not coercive. As a result, Akinpelu (1997) and Aiyelaagbe (1998) stress that learners tend to retain the highest percentage of what they learn when words are matched with actions as in drama. Hence, the use of drama as one of the communication strategies in teaching social studies to adult learners.

Audio-Based Instructional Strategies

These refer to media that carry sounds only in the process of teaching and learning. The potentials of audio-based instruction such as radio and audio cassettes as training and communication media have been established by various researches. Akinmoyewa (1997) therefore asserts

that the use of radio for education even started earlier than those of other media such as television. Audio instruction such as audio-cassette has been observed to be very effective in teaching/learning situation. It lowers educational cost; it improves access to education particularly in the rural areas, it also improves educational quality and relevance in adult literacy classes, school setting or at home. Thus, the use of audio-based instruction (audio-cassette) in this study.

Research Hypotheses and Methodology

The following null hypotheses were tested:

- HO₁: There is no significant main effect of treatment on adult learners' (a) achievement in social studies (b) attitude towards social studies.
- HO₂: There is no significant main effect of learners' socio-economic status on adult learners' (a) achievement in social studies (b) attitude towards social studies.
- HO₃: There is no significant interaction effect of treatment and socio-economic status on adult learners' (a) achievement in social studies (b) attitude towards social studies.

Results and Discussions

Hypothesis 1

Hypothesis 1 states that there is no significant main effect of treatment on adult learners' (a) achievement in social studies (b) attitude towards social studies.

Tables 1 and 2 represent the ANCOVA for the three dependent variables. The results show a significant main effect of treatment on learners' achievement in social studies ($F_{(2,303)}=19.93$; $p<0.05$). And learners' attitude to social studies ($F_{(2,303)}= 6.282$; $P<0.05$). Therefore, hypothesis 1a and b were rejected. The corresponding Multiple Classification Analysis presented in Tables 3 and 4 provide an additional insight to the result with regard to post-test adjusted means of each of the groups as defined by the level of dependent variables.

The MCA as shown in table 3 described the performance of all the groups. Drama method (experiment 1) was found to

have recorded the highest mean score of 81.107, followed by the audio-based instruction (experiment 2) with a mean score of 62.94. Moreover, learners of high socio-economic status with a mean score of 78.837 performed better than those of low socio-economic status with a mean score of 12.867.

The MCA as shown in Table 4 describes the attitudes scores of learners in all the groups. Learners exposed to audio-based instruction had best attitude towards Social Studies with a mean score of 55.525 followed by those exposed to drama method of instruction with a mean score of 53.155. Those learners exposed to the conventional method had the least mean score of 50.655. However, to find the direction or the relationship between the groups, the Scheffe Multiple range test was used. Tables 5 and 6 show the post-hoc analysis for learners achievement in Social Studies and learners attitude to Social Studies.

It could be observed from table 5 that the mean score of each of the 2 experimental groups is significantly different from the control group. Again, Group -1 (drama method) is significantly different from Group 2 (audio-based instructional package).

That is, Table 5 reveals that there is significant difference between groups 1 (drama method) and 3 (conventional method), groups 2 (audio-based instructional package) and 3 (conventional method) in favour of groups 1 (drama) and 2 (audio-based instructional package). In other words, there is significant difference between the two experimental groups and the control group on learners' achievement in Social Studies. Moreover, group 1 – Drama method is significantly different from groups 2 and 3 that is, audio-based instruction and the conventional method respectively.

This indicates that the drama method and the audio-based instructional methods are very important factors, which have strong implications for the success and promotion of any adult teaching-learning process.

Consequently, the results of this study confirm the research findings of Abolade (1999); Aremu and Akanni (1999) on the superiority and effectiveness of drama and audio-based instructional strategies to the normal conventional classroom method.

Table 6 shows that there exit a significant difference between the control group and the two experimental groups - drama method and audio-based instructional package.

In other words, table 6 shows that there is a significant difference between groups 1 (drama method) and 3 (conventional method) and group 2 (audio-based package) and 3 (conventional method). The means for experimental groups 1 and 2 are significantly higher - (54.8222, 52.8551) than the mean of the control group -(49.5854) for learners' attitude towards Social Studies.

These facts show that the method of instruction has a significant main effect on the variations of the adult learners' attitude scores towards social study. In effect, drama method followed by audio-based instructional package play significant role in enhancing adult learners' attitude towards Social Studies. This finding further affirms that drama like puppet shows, theatrical plays and role plays are excellent, media for sharing educational stories with large group. They are entertaining and unlike any other media, have the potential of dragging the audience (learners) into the message by means of the true-to life character of the performers and the immediacy of the teaching. This finding further confirms the potential value of drama and audio-based instruction in effecting both cognitive and affective learning outcomes.

Hypothesis 2

Hypothesis 2 states that there is no significant main effect of learners' socio-economic status on adult learners' (a) achievement in social studies (b) attitude towards social studies.

The Analysis of Covariance (ANCOVA) results on Tables 1 and 2 show that there was significant main effect of learners' socio-economic status on learners' achievement in social studies ($F_{(1,303)} = 5.225$; $p < 0.05$) and learners' attitude to social studies ($F_{(1,303)} = 8.790$; $p < 0.05$). Therefore, hypothesis 2a and 2b were rejected.

Also, Tables 3 and 4 show the Multiple Classification Analysis for learners' achievement in social studies and learners' attitude to social studies. The mean scores of learners of high socio-economic status 78.837 and learners

of low socio-economic status 72.867 with respect to achievement in social studies reveal that learners of high socio-economic status performed better than those by low socio-economic status. Likewise, learners of high socio-economic status with a mean score of 55.595 had positive attitude to social studies better than those of low socio-economic status with a mean score of 52.945.

These results however contradict the research results of Okediran (1988) that reveals that learners' socio-economic status has no effect on the learners' achievement in Yoruba Reading and supports the research findings of Fajoyomi (1988) where learners' socio-economic status influenced achievement in Arithmetic, English and General Papers Examinations respectively.

Hypothesis 3

Interaction effects of treatment and socio-economic status on learning cognitive and affective outcomes

The hypothesis states that there is no significant interaction effect of treatment and socio-economic status on adult learners' (a) achievement in social studies (b) attitude towards social studies.

Tables 1 and 2 reveal that there was significant interaction effects of treatment and learners' socio-economic status on learners' achievement in social studies ($F_{(2,303)} = 6.461$; $p < 0.05$) and learners' attitude to social studies ($F_{(2,303)} = 8.972$; $p < 0.05$).

Hypotheses 3a and 3b were rejected. It appears that treatment was sensitive to learners' achievement in social studies and attitude to social studies with regard to different socio-economic status of adult learners.

A simple interaction effect as shown in table 7 reveals that learners of high socio-economic status exposed to audio-based instruction and conventional method performed better than their counterparts of low socio-economic status in social studies. While, those with low socio-economic status exposed to drama method performed better than those with high socio-economic status

Conclusion and Recommendations

Effective teaching/learning in an adult literacy program is a vital tool for national development. This is also a link between the subject, method of teaching and the performance of the learners. This study has shown through verifiable evidence that appropriate communication or instructional strategy has a major role to play in sustainable and successful adult literacy program. In the light of this, adult literacy education planners, curriculum developers, researchers and facilitators are to incorporate and utilize appropriate teaching methods into adult literacy education. Besides, adult learners are quite different from secondary school students therefore their characteristics must be taken into cognizance before employing any teaching method. There is no way an adult can have a positive attitude towards a program that is not embedded in his/her interest. Adult facilitators must therefore be challenged by these results to teach and communicate at the level of both classes of learners to achieve the main objective of adult literacy program which is effective learning. The results of this study suggest adult learners are better taught using drama method and audio-based instruction. This will stimulate their interest and enhance comprehension. To bridge the gap between learners of both high and low socio-economic status in adult literacy teaching/learning process, communication or instructional strategies such as drama and audio-based instruction should be employed in adult literacy teaching/learning situation.

The findings of this study also reveal that the socio-economic status of adult learners had significant effect on adult learners' attitude towards social studies. Adult education primer writers should learn a credence from this study and recast adult primers to accommodate the interest of adult learners of both high and low socio-economic status. More so, more viable literacy centers should be created within the reach of all categories of learners, especially in the rural areas not minding the resources. Thus, more adults would be privileged to enroll and enjoy the opportunity of learning, thereby producing highly motivated conscientious and efficient adult learners of both high and low socio-economic status.

Adult literacy education should be well designed for all categories of adult learners, so that learners with low socio-economic status can maximally benefit from the literacy program as those learners with high socio-economic status. However, adult learners since they are the targeted audience for this program need to be encouraged and motivated to learn. They could be provided with books and writing materials free of charge or at a minimal cost and also a very conducive learning atmosphere.

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Table 1: Analysis of Covariance (ANCOVA) of the Post-test Achievement Scores of Learners (according to treatment, gender, and socio-economic status) in Social Studies

Source of Variation	Sum of Squares	DF	Mean Square	F	Significance
Covariates	10338.388	1	10338.388	22.794	.000*
V ₂	10338.388	1	10338.388	22.794	.000*
Main Effects	21528.031	4	5382.008	11.866	.000*
V _i (Treatment)	18073.710	2	9036.855	19.925	.000*
V ₄ (SES)	2369.979	1	2369.979	5.225	.023*
Gender	982.723	1	982.723	2.167	.142
2-way Interactions	7620.015	5	1524.003	3.360	.006
V ₁ x V ₄	5861.111	2	2930.555	6.461	.002*
V ₁ x Gender	1986.567	2	993.284	2.190	.114
V ₄ x Gender	124.379	1	124.379	.274	.601
3-way Interactions	944.622	2	472.311	1.041	.354
V ₁ x V ₄ x Gender	944.622	2	472.311	1.041	.354
Explained	40431.057	12	3369.225	7.429	.000
Residual	131982.890	291	453.549		
Total	172413.947	303	569.023		

* = Significant at P < 0.05

Table 2: Analysis of Covariance (ANCOVA) of the Post-attitude Scores of Learners to Social Studies

Source of Variation	Sum of Squares	DF	Mean Square	F	Significance
Covariates	5228.825	1	5228.825	65.204	.000*
PRE SSQ	5228.825	1	5228.825	65.204	.000*
Main Effects	1701.302	4	425.325	5.304	.000*
V ₁	1007.492	2	503.746	6.282	.002*
V ₄	704.894	1	704.894	8.790	.003*
Gender	171.490	1	171.490	2.138	.145
2-way Interactions	1846.292	5	369.258	4.605	.000
V ₁ x V ₄	1439.016	2	719.508	8.972	.000*
V ₁ x Gender	214.409	2	107.205	1.337	.264
V ₄ x Gender	107.563	1	107.563	1.341	.248
3-way Interactions	825.763	2	412.881	5.149	.006
V ₁ x V ₄ x Gender	825.763	2	412.881	5.149	.006*
Explained	9602.181	12	800.182	9.978	.000
Residual	22774.633	291	78.263		
Total	32376.815	303	106.854		

* Significant at P < 0.05

Table 3: Multiple Classification Analysis of the Post-test Achievement in Social Studies
Grand Mean = 74.987

Variable + Category	N	Unadjusted Deviation	Eta	Adjusted for Independent + Covariates Deviation	Beta
V ₁					
1. Drama Method Audio-based Instruction	125	6.32		6.12	
2. Control	92	-11.19		3.07	
	87			-12.04	
			.31		0.32
V ₄					
1. High	101	3.57		3.85	
2. Low	196	-1.97		-2.12	
			.11		.12
Gender					
1. Male	104	2.81		2.54	
2. Female	200	-1.46		-1.32	
			.09		.08
Multiple R Square					.185
Multiple R					.430

Table 4: Multiple Classification Analysis of the Post-attitude Scores to Social Studies
Grand Mean = 53.185

Variable + Category	N	Unadjusted Deviation	Eta	Adjusted for Independent + Covariates Deviation	Beta
V ₁					
1. Drama Method	125	1.18		-.03	
2. Audio-based Instruction	92	1.64		2.34	
3. Control	87	-3.60		-2.53	
			.21		.18
V ₄					
1. High	108	-.65		2.41	
2. Low	196	.34		-1.24	
			.04		.17
Gender					
1. Male	104	-2.03		-1.10	
2. Female	200	1.03		.56	
			.14		.08
Multiple R Square					.214
Multiple R					.463

Table 5: Post-Hoc Analysis of Learners' Achievement in Social Studies

Mean	Group	Group 3	Group 2	Group 1
63.7931	Group 3			
75.3623	Group 2	*		
76.9891	Group 1	*		

* Significant at P < 0.05

Table 6: Post-Hoc analysis of learners' attitude to social studies

Mean	Group	Group 3	Group 2	Group 1
49.5854	Group 3			
52.8551	Group 2	*		
54.8222	Group 1	*		

* Significant at P < 0.05

Table 7: Interaction effect of socio-economic status and treatment on adult learning outcomes

	Treatment	Socio-economic Status	
		High	Low
1	Drama method	74.84	75.66
2	Audio-based instruction	79.64	76.00
3	Conventional method	74.03	56.90