

**VALIDATION OF RETIREMENT ADJUSTMENT SCALE FOR RETIRED
TEACHERS OF SECONDARY SCHOOLS IN OSUN STATE, NIGERIA.**

By

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Abstract

The study conducted a factor analysis of Retirement Adjustment Scale (RAS) for retired teachers of secondary schools in Osun State. It developed a set of items for measuring retirement adjustment among retired teachers in Osun State. It determined the construct validity and the reliability of the scale with a view to generate a set of items that would be used to measure retirement adjustment among retired teachers. The study employed survey design and the population comprised all retired teachers in Osun State. A sample of 159 retired teachers were randomly selected from one of the three senatorial districts in the state. The instrument used was self developed scale of 21- items used to explore the adjustment of the respondents towards retirement. The responses were subjected to Principal Component Analysis (PCA) with Varimax (orthogonal rotation techniques) for scale stability and also the Kaiser- Meyer Olkin (KMO) for sample adequacy. The results revealed that the items were homogenous with the mean ranged from 3.36 maximum to 1.70 minimum, standard deviation ranged from between 0.96 to 0.58. The overall reliability of the instrument was high ($\alpha = 0.782$). The PCA yielded six factors and the KMO, (measured of sample adequacy) = 0.701. The study concluded that the RAS developed was found valid, reliable and suitable for use to measure retirement adjustment among secondary school teachers.

Keywords :- Retirement, Adjustment, Validation, Scale, Factor analysis

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1. Introduction

Retirement appears to attract different meanings and uses to different scholars across climes, either as a wide range of activities, a state of affair, or a process (Cornman & Kingston, 1996). It is the last phase of occupational events of life, revealing the period that follows a career employment in which occupational tasks are withdrawn (Atchley, 1976). To Adeloye (1997), retirement depicts the quitting of service by an employee who has been on an employer's payroll for such a period of time long enough to attract retirement benefits to the employee – whether gratuity or pension. Further on the concept, it is a process of transiting from normal work performance, due to factors like ageing, poor health, redundancy, or being compelled to do so following the completion of official employable years put in place by the employing organization (Akinboye, 1998) while Olatomide (2016) viewed retirement as partial or complete disengagement from the work role which has won the individual renown, due to personal or organizational factors – whether retirement benefits would accompany it or not. There are three forms of retirement, namely: voluntary (or self-retirement), compulsory (or forced retirement), or mandatory (or statutory). Whichever way retirement comes, it is a transition to a new phase of life.

As individuals transit from one phase (or position) of life to another, the need to satisfactorily meet the varying demands of the new life becomes indispensable. This is to enhance happiness and fulfillment for the individuals. When individuals are able to meet the diverse competing demands in any given phase of life, they are said to attain adjustment in that position. Thus, retirement adjustment refers to the degree to which retirees meet their competing needs at retirement, leading to happiness and fulfillment. It is synonymously referred to retirement wellness or retirement wellbeing.

Literature on retirement adjustment of retirees has explicitly revealed a number of pointers bordering retirement adjustment. One of these is the state of health of the retirees. Incontrovertibly, sound health is required at any phase of life, for productivity and happiness. Related to this, both Akinboye (1998) and Akinade (2006) concurred that good health correlates positively with happiness, and that good health is crucial to the happiness and retirement satisfaction of older retirees. Besides, good health, the type of attitude learned by retirees prior to retirement is also crucial. Asebedo and Seay (2014) revealed that the development of optimism during the pre-retirement phase, and its subsequent utilization at retirement holds potential for retirees' adjustment. Similarly, development of positive emotion relating to the retiree's perception of past, present and future has been found to positively relate to retirement satisfaction (Asebedo & Seay, 2014; Puri & Robinson, 2007). This underscores the irreplaceable need for psychological preparation of would-be retirees during the near pre-retirement phase. Similarly, another important area of compelling adjustment to retiree is the financial adjustment, judging from the fact that no retiree would receive a monthly pension equivalent of their salary while in service. Accordingly, adequate pre-retirement financial planning is been found to relate positively to retirement adjustment (Elder & Rudolph, 1999; Joo & Grable 2005; Social Security Administration, 2011). This strongly underpins the need for adequate financial pre-retirement preparation of prospective retirees prior to entry into retirement.

In addition, it is known that at retirement, retirees lose a number of their office friends, clients and neighbours they may have made in course of their engagement with their work. This can be worsened for retirees who ,might need to relocate to a new environment different from where they

(and the members of their families) have built social relations over the years. Consequently, ability to establish new social networks with distant family members, neighbours, people of similar religious adherents, etc., are indispensable to retirees' social adjustment (Adejuyigbe, 1997; Davies & Cartwright, 2011; Osborne 2012). The need to bridge the gap between the old friends to be lost at retirement and the new ones to contract underscores the relevance of sociological pre-retirement preparation of the pre-retired workers before transiting into retirement. Furthermore, having satisfying and rewarding activities to engage the retired at retirement is crucial to retirees' adjustment. Related to this, Kim and Feldman (2000) as well as Asebedo and Seay (2014) concurred that engagement of retirees in activities (volunteering or paid for), other work-related activities, projects, etc., are positively associated with the retirees' retirement adjustment. This explains the need for workers to pre-plan their hobbies, leisure activities, and other work-related activities, and commence their practice at the point of transition with a view to mastering them at retirement. Still on the pointers to retirement adjustment, the nature of support the family members offer the retired could promote or hinder the retirement adjustment of the retired. A number of studies like that of Sagy (1992), Nuttman-Shwarz (2007) as well as Asebedo and Seay (2004) have revealed there is a positive relationship between family support and retirees' adjustment at retirement. This explains the relevance of involving the family members of the retired in the goals and actions bordering retirement during the pre-retirement phase.

In Nigeria, different researchers have explored different areas of retirement and retirees phenomena. For instance, knowledge of prospects and challenges awaiting retirees at retirement (Garba & Mamman, 2014; Olatomide & Fashiku); effective planning for retirement (Akinade, 1993; 2011); challenges facing retirees at retirement (Akinade, 1993; Olatomide, 2010; Orhungur, 2005); financial planning strategies (Onayase, 2013); and more recently Adeyemo and Olatomide, (2015) developed a scale to measure the retirement anxiety of secondary school teachers. Thus far, there is no locally-made instrument known to these researchers that can be used to measure the adjustment of retirees in retirement. This necessitates the need for this study. Arising from this, the objectives of this study are to:

- i. develop a set items for measuring retirement adjustment among retired teachers in Osun State;
- ii. determine the construct validity of the scale; and
- iii. determine the reliability of the scale.

The following research questions were raised

2. Research Questions

- i. What are the set of appropriate and homogeneous items on retirement adjustment among selected teachers in Osun State?
- ii. What is the internal consistency reliability of the Retirement Adjustment Scale?
- iii. Does the retirement Adjustment Scale possess Construct Validity?

3. Method:

The study employed survey design to gather information from the representative sample of the population and investigate retirement adjustment among retired teachers and to obtain accurate data of high response. The study population consisted of all retired teachers in Osun State. The sample size of 159 was drawn from one of the three senatorial districts of the State. This comprised of 72 females and 87 males randomly selected from among those that attended the monthly meetings of teacher retirees in Ile- Ife. The instrument used for a data collection was a 21 items that explored the adjustment of the respondents towards retirement. The items were written after a careful study of

related literature on adjustment. These questions which were of 5 Likert scale were administered to the teachers. The items consisted both positive and negative statements like ‘I feel happy that I ever worked in a public service, my retirement entitlement are paid as at when due’ , ‘I feel lonely and deserted since retirement’, ‘I need another salary job,’ and I enjoyed strong health since retirement. The negative items include ‘I wish I could have another opportunity to start work as a young person’, ‘my mind condemns me when I remember the mistakes I made while in active service, etc. The positive items were scored from 5 to 1 and the negative items were reversed in their scores.

The data collected were subjected to Principal Component Analysis with varimax (orthogonal) rotational technique which produced the dimension of differentiation used on the data to determine the suitability of the scale on factor analysis. The Kaiser-Meyer Olkin (KMO) measure of sampling adequacy was determined in order to measure the sufficiency of the sample. The evaluation of the questionnaire reliability internal constituency was based on Cronbach Alpha which was considered the most important reliability index.

Twenty-one items consisting of 11 positive and 10 negative statements were administered on 159 respondents. The content validity of the items was determined by three other experts in Tests and Measurements for appropriateness of items in length ,of wordings and relevance. Table one below shows the demographic characteristics of the respondents who participated in the study.

Table One. Demographic information of respondents

Socio-demographic Characteristics	N	%
Sex		
Female	72	45.3
Male	87	54.7
Type of Family		
Monogamy	119	74.8
Polygamy	40	25.2
Highest educational qualification		
Primary School Living Certificate/Technical	4	2.5
NCE/OND	55	34.6
HND / First degree or Higher	100	62.9

There were more male (54.7%) than female participants in the study; majority (62.9%) had minimum of HND/First degree or higher before retirement, while the rest had NCE/OND (34.6%) and primary education (2.5%). About three-quarters (74.8%) of the respondents had a monogamous family.

4. Results

Research Question 1. What are the set of appropriate and homogeneous items on retirement adjustment among selected teachers in Osun State?

Twenty-one items consisting of 11 positive and 10 negative statements were administered .Table Two shows the Mean and the Standard Deviation of each of the items. The Mean ranges from 3.36 maximum to 1.70 minimum with the standard deviation ranges from between 0.96 as maximum to 0.58 as the minimum. The item with the highest mean of 3.36 had the standard deviation of 0.72

while the item with the least standard deviation of 0.58 had the mean of 3.00. This confirmed the appropriateness and homogeneity of the items of the retirement adjustment scale. The response on both the positive and the negative followed the same trend, thus confirming the homogeneity in the response of the respondents on the scale.

Table Two: Mean and Standard deviation of the respondents

Items	Mean	SD
I feel happy that I ever worked in civil/public service	3.36	0.72
I enjoy a lot of respect from my wife/husband since my retirement	3.24	0.85
My retirement entitlements are paid as at when due	1.70	0.76
It is difficult for me to moderate the spending habit formed while in service	2.57	0.85
I enjoy lots of esteem from member of the society since my retirement	2.82	0.77
I am feeling lonely and deserted since my retirement	3.21	0.76
I need another salary job	2.75	0.89
My extended family members give me need support in my retirement	2.46	0.91
The respect my child/ren show toward me has not reduced since retirement from what it was while in service	3.18	0.90
I share more time with my old friends since my retirement	2.81	0.81
My wife/husband has positive attitude toward my retirement	3.04	0.92
I enjoy strong health since my retirement	3.29	0.58
I fully understand how to spend my excess time in retirement	3.00	0.58
I have other sources of income to take care of my financial need whenever my pension is not paid	2.48	0.88
I am living in poverty since my retirement	3.28	0.78
My mind condemns me whenever I remember the mistakes I made while in active service	2.82	0.85
I wish I could have another opportunity to start work as a young person	2.71	0.96
Regular maintenance of my car/motorcycle takes money than I anticipated	2.35	0.83
The state of my child/ren's joblessness gives me cause for worry	2.26	0.96
Reduction in my sexual power/response before my spouse worries me	2.97	0.87
My retirement has been an unpleasant experience	3.11	0.78

Research Question 2. What is the internal consistency reliability of the Retirement Adjustment Scale ?

The items on retirement adjustment were subjected to reliability test and the results was as shown in Table 3

Table 3 :- The Internal Consistency Reliability of the Retirement Adjustment Scale ?

S/N	Items	Dimension	Correlation Total	Cronbach Alpha
1	I feel happy that I ever worked in civil/public service	Positive	.157	.783
2	I enjoy a lot of respect from my wife/husband since my retirement	Positive	.478	.764
3	My retirement entitlements are paid as at when due	Positive	.255	.778
4	It is difficult for me to moderate the spending habit formed while in service	Negative	.239	.779
5	I enjoy lots of esteem from member of the society since my retirement	Positive	.511	.763

6	I am feeling lonely and deserted since my retirement	Negative	.277	.777
7	I need another salary job	Negative	.313	.775
8	My extended family members give me need support in my retirement	Positive	.292	.776
9	The respect my child/ren show toward me has not reduced since retirement from what it was while in service	Positive	.142	.786
10	I share more time with my old friends since my retirement	Positive	.054	.790
11	My wife/husband has positive attitude toward my retirement	Positive	.396	.769
12	I enjoy strong health since my retirement	Positive	.363	.773
13	I fully understand how to spend my excess time in retirement	Positive	.337	.774
14	I have other sources of income to take care of my financial need whenever my pension is not paid	Positive	.415	.768
15	I am living in poverty since my retirement	Negative	.602	.757
16	My mind condemns me whenever I remember the mistakes I made while in active service	Negative	.319	.774
17	I wish I could have another opportunity to start work as a young person	Negative	.264	.779
18	Regular maintenance of my car/motorcycle takes money than I anticipated	Negative	.404	.769
19	The state of my child/ren's joblessness gives me cause for worry	Negative	.486	.763
20	Reduction in my sexual power/response before my spouse worries me	Negative	.280	.777
21	My retirement has been an unpleasant experience	Negative	.577	.759
Total % of Variance Explained = 60.11				
Cronbach Alpha Statistics of reliability = 0.782				

The overall reliability of the instrument is high ($\alpha = 0.782$) with individual item reflecting high level of reliability as shown in Table 3 above. This also confirms the homogeneity and the consistently reliability of the items. The items with the highest reliability coefficient is item 9 with α of 0.786 while the least is item 15 with the coefficient α of 0.757. The cumulative % of variance for both the positive and the negative items is 60.11.

Research Question 3. Does the retirement adjustment scale possess construct validity?

Twenty-one questions relating to Retirement Adjustment Scale (RAS) using Principal Component Analysis (PCA) with a varimax (orthogonal) rotation was conducted on data gathered from 159 participants. The analysis yielded six factors explaining a total of 60.11% of the variance for the entire set of variables. An examination of the Kaiser-Meyer Olkin measure of sampling adequacy suggested that the sample was factorable ($KMO=0.701$) with the Bartlett's Test of Sphericity less than 0.05. The results of an orthogonal rotation of the solution are shown in the table above. When loadings less than 0.40 were excluded, the analysis yielded six-factor solution with a simple structure (factor loadings ≥ 0.40).

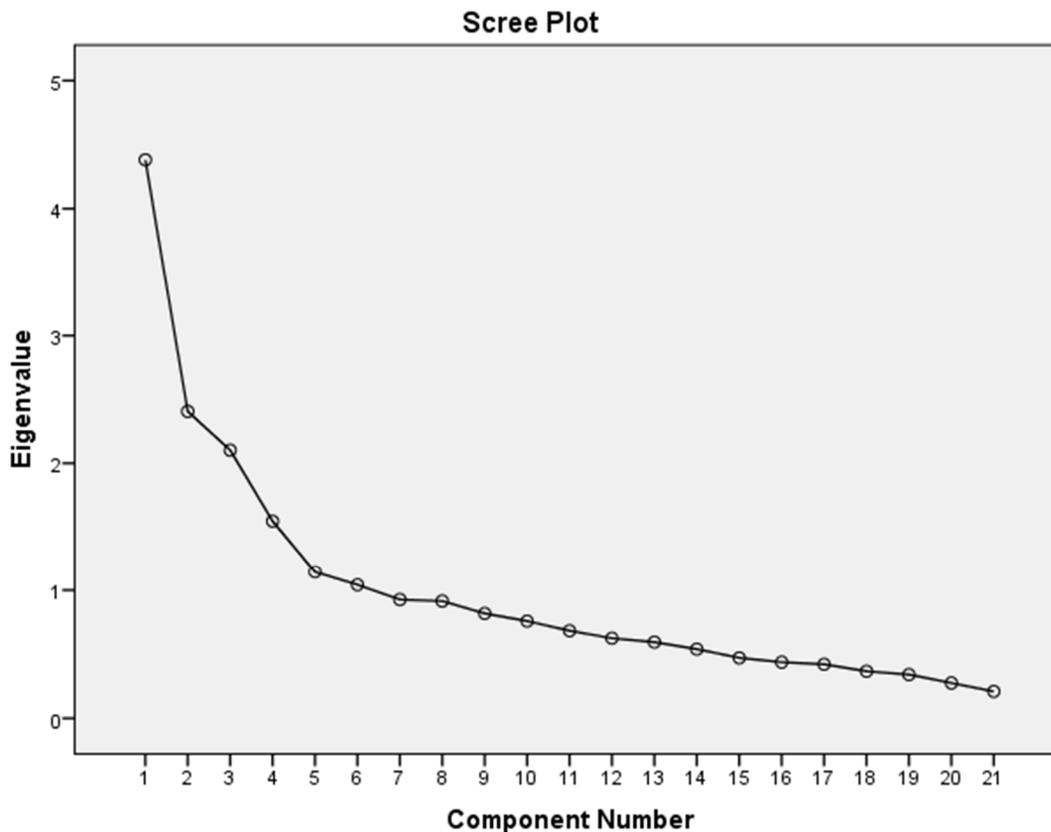
The variables loading onto each of the six-factor solution are explained below:

Seven items loaded on factor 1 which explained 20.86% of the variance; four items loaded on factor 2, explaining 11.46% of the total variance, four items loaded on factor 3, explaining 10.01%, five

items loaded on factor 4 which explained 7.36%, three items loaded on factor 5 which explained 5.45% and two items loaded on factor 6 which explained 4.96% of the total variance.

Some of the items such as “I enjoy lots of esteem from members of the society since my retirement” loaded on factors 1 and 4; “My extended family members give me needed support in my retirement” loaded on factors 1 and 4; “I enjoy strong health since my retirement” on factors 5 and 6, and “Reduction in my sexual power/response before my spouse worries me” on factors 1 and 4 with greater than 0.40 factor loadings.

The communality of each of the variables included is relatively high (more than 0.40) except “I feel nervous when I am about doing something positive in preparation for my retirement” whose communality is lower (0.396), having a small amount of variance in common with other variables in the analysis



The scree plot graphs the eigenvalue against the factor number (latent variables generated).

This scree plot shows that six of the factors explain most of the variability because the line starts to straighten after factor 6. The remaining factors explain a very small proportion of the variability and are likely unimportant. In other words, from the seventh factor on, the line is becoming flat, meaning that each successive factor is accounting for smaller and smaller amounts of the total variance.

ITEMS	Component					
	F1	F2	F3	F4	F5	F6
I enjoy a lot of respect from my wife/husband since my retirement	.708	-.114	.132	.160	.086	.256
I enjoy lots of esteem from member of the society due since my retirement	.454	.169	.007	.463	-.118	.342
I am feeling lonely and deserted since my retirement	.606	.131	-.166	-.152	.186	.038
My extended family members give me need support in my retirement	.431	-.103	.414	.081	-.205	.088
I am living in poverty since my retirement	.616	.244	.183	.268	.031	.064
Reduction in my sexual power/response before my spouse worries me	.578	-.259	-.132	.405	.206	-.235
My retirement has been an unpleasant experience	.773	.239	.111	.033	.038	.084
I need another salary job	.073	.673	-.177	.131	.023	.222
My mind condemns me whenever I remember the mistakes I made while in active service	-.020	.801	.104	.034	.135	-.056
I wish I could have another opportunity to start work as a young person	.045	.694	.120	.004	.172	-.289
Regular maintenance of my car/motorcycle takes money than I anticipated	.220	.645	.083	.177	-.173	-.041
My extended family members give me need support in my retirement	.431	-.103	.414	.081	-.205	.088
I share more time with my old friends since my retirement	-.118	-.041	.773	-.033	-.157	.042
My wife/husband has positive attitude toward my retirement	.182	.147	.785	.064	.155	.008
I fully understand how to spend my excess time in retirement	.085	.110	.689	.106	.149	.029
I enjoy lots of esteem from member of the society since my retirement	.454	.169	.007	.463	-.118	.342
Reduction in my sexual power/response before my spouse worries me	.578	-.259	-.132	.405	.206	-.235
My retirement entitlements are paid as at when due	.075	-.079	-.030	.766	-.061	.018
I have other sources of income to take care of my financial need whenever my pension is not paid	.043	.288	.080	.721	-.079	.154
The state of my child/ren's joblessness gives me cause for worry	.115	.328	.242	.555	.182	-.054
The respect my child/ren show toward me has not reduced since retirement from what it was while in service	.104	.054	.089	-.096	.781	-.077
It is difficult for me to moderate the spending habit formed while in service	.340	.156	-.373	.056	.437	.154
I enjoy strong health since my retirement	.049	.022	.200	.261	.476	.646
I enjoy strong health since my retirement	.049	.022	.200	.261	.476	.646
I feel happy that I ever worked in civil/public service	.347	-.183	-.012	-.009	-.189	.713

5. Discussion

From the rating of the 21 items on the Retirement Adjustment Scale, most of the items had a mean as high as above 3.00 except for item 3 (My retirement entitlements are paid as at when due) that had the mean of 1.70. This indicated a positive disposition and also homogeneity and appropriateness of the items, both the positive and negative items. The Community (C) of majority of the items was greater than 0.5 (except for items 4, 6 and 8) This revealed a satisfactory quality of the six- factor components models, making the scale to satisfy the condition as stated in Rumel (1970) that is the majority of the variable’s variance were accounted for by the components. The Kaiser-Meyer–Olkin (KMO) measure of sampling adequacy was 0.707 which was high enough , indicating that the sample data were sufficient enough to undergo factor analysis. The Sphericity test (Bartlettis Test of Sphericity $p < 0.001$ showed that the Principal Component Analysis was

sensible and the value of Cronbach $\alpha = 0.782$ confirmed the reliability of the items. The high internal consistency of the retirement adjustment scale (RAS) suggested that the 21 bi-dimensional items (11 positive, 10 negative) turned out to be an internally consistent measure of Retirement Adjustment Scale construct in which the responses were highly reliable, stable and reflected true measurement of retirement adjustment because the higher the value, the more reliable. This follows the rule of Thumb for the values $> 0.9 =$ excellent, $> 0.8 =$ good, $> 0.7 =$ acceptable $> 0.6 =$ questionable, $> 0.5 =$ poor, and less than 0.5 to be unacceptable (Mallery, 2003)

The Principal Component Analysis released six components F1 to F6 which jointly attributed to 60.11% of the total variance with the overall reliability coefficient Cronbach α statistically significant (0.782) This reflected a high degree of Internal Consistency Reliability for group analysis which is acceptable as cited in Anastasi and Urbina (1998). The result on the Scree plot confirmed it as the eigen value was above 1.00 only among the first six factors.

6. Conclusion

It can be concluded that the Retirement Adjustment Scale (RAS) that was developed and validated was found valid and reliable for measuring retirement adjustment among Nigerian secondary school teachers and was also found suitable among Nigerian retired teachers.

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