
Prospects of Sampling Techniques in a Social Experiment of Job Analysis on Counselling Services in a Formal Organization

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Abstract: This study is on the prospects of sampling techniques in social experiments of job analysis on counseling services in formal organization. The main objective of the study is to examine the prospects of the technique in improving teacher's attitudes to counselling service in secondary school. As part of the methodology, the study explored available literature on the concepts and application of managerial technique of job analysis in social experiment with experimental treatment as the independent variable and attitude scale technique as the dependent variable (i.e. teacher's attitude to school counseling). Pre-test and post-test attitude-scale scores of control and experimental groups were subjected to statistical tests which confirmed that there is significant positive difference in the experimental group as a result of the treatment that was applied on the group. The analysis shows that there is significant difference in experimental and not control group. The implication to the study is that the managerial technique of job analysis is a veritable instrument of improving teacher's attitude to services rendered by counsellors in schools. Among the major recommendation is the need for School Proprietors, Managers and Job Incumbents to ensure adequate usage of Job Analysis Document of School Counsellors in all schools.

Keywords: Job Analysis Technique, Attitude to Counselling, Sampling Technique, Control and Experimental Groups, Formal Organizations, Job Analysis Document.

1. Introduction

The stage of stating subjects and samples in research is the stage at which the researcher states the details of the subjects from which he/she is to secure the information he/she is seeking for. In other words, every research has to contact or work with some subjects from which information is secured. This subject could be living or non-living things. Examples are Nigerian Students, Cattle in Igbomina Land, Common Iodine in Asia and West African Igneous Rocks. Sometimes, these subject are manipulated to enable the researcher secure the information sought by the research. At this stage the researcher needs to state and describe the subject with accuracy. Beyond this, the researcher should state whether or not it is possible to contact all the subjects. This is whole population of the subjects. In the event that he cannot contact nor manipulate the whole population, he/she should explain how many he/she is going to take as samples and the method he/she is going to use for the sampling. This is to ensure that adequate number and in fact appropriate samples are chosen. In this while, the number of samples should not be too few. Secondly, the samples should not be one-sided. Otherwise, the result will give wrong impression. For an example, too many samples from class 1 may not give correct information about the whole school because there are other classes (2, 3, 4, 5, and 6) that are slightly different from class 1.

The four major types of sampling are random sampling, systematic sampling, stratified sampling and purposeful sampling. The Random Sampling is the one which you pick freely from all sides but with fairness to all. In this way all subjects have equal chance of being selected. You need to ensure that each of the subjects here has equal chance of being selected. The stratified sampling is the one in which you group them to categories before you select your samples from each of the categories. The purposeful sampling is one in which you select your samples to meet a clearly stated need of your research rather than to satisfy fair selection alone. An example is when you select students that came first in the class to represent each of the classes. The stage at which research subjects and samples are clearly stated is also a very important stage in the research. One, it gives clear and correct focus. Two, it leads to correct result. Where there is no careful sampling procedure, researchers often end up with incorrect result. Finally, clarification and grouping of samples usually lead to easy analysis of results. The first step to be taken is to recur at the type of information sought by the research. Sometimes they seek for data or large number of scores. Sometimes they seek for few scores. Sometimes, they seek for literary information.

The second step is to explain the size of the population. The third step is to recur at the types of sampling and methods. The most commonly used types are random, systematic, stratified and purposeful sampling

methods. The fourth step is to state the sampling method(s) chosen and the reason(s) for choosing them. For an example here, stratified sampling is often applied for student population because the population is very large and usually they exist in categories of classes. The fifth step is to explain the chosen sampling methods and how they will be applied in the research. The researcher needs to refer to literature review to explain the nature of chosen sampling methods. Beyond this, he needs to relate the methods to his on-going research by stating how the methods shall be applied in the research.

The position of this paper is that these steps are of outmost importance to quality work in research. The quality of work done on the sampling procedure determines the adequacy of positions taken at every stage of the research. This position was aptly demonstrated in the sample research presented in this paper. For this reason, the presentation of the study indicates sequence of the components and the impact of sampling in each of the stages. One of the most talked about problems of counselling services and indeed the school as a formal organisation is that of attitude of organisational men. Teachers are often opposed to roles of head of department and counsellor which often mean 'correction' just as the teachers correct students. In the same vein, comments of both print and electronic media, opinion leaders and government policy statements posit that recipients of formal education need to be more tolerant and ready to sacrifice for the course of the nation, the community and the formal organisation in which they are (Omotosho, 2010). Is there a method of measuring attitude to school or services of its officers with the focus here on counselling in schools? Literature available provides a number of methods for measuring attitude in general. Likert's method of constructing attitude scale was employed to test the theory of possibility of measuring attitude. Samples and sampling technique in this study therefore guide research steps in this study.

In the first place, the need for knowing the samples that will respond to research instruments guided the researcher to define the objects of study very carefully. These are the teachers in secondary schools. Beyond this, this consideration for the sample and sampling techniques also guides research at this stage to delimit focus to specified schools. The challenge here is considerable as it takes time and considerable amount of efforts including supervisory inputs often guiding the research to reframe considerable parts of chapters. Beyond measuring teachers' attitude to counsellors, is there a technique for improving this attitude? We are interested in this because poor attitudes manifest in teachers' inability to meet standards set by inspectors. This is why teachers' practices, academic attainment and in turn, examination performances in schools fall far below expectations. It is therefore certain that we need to establish techniques that improve attitudes in schools. Literature available provides a number of administrative techniques applicable by head to lower cadres (Torrington, *et al*, 2005). The technique of job analysis was chosen to be experimented on teachers' attitude to services of school counsellor to test the theory of positive impact of managerial technique on job perception. Job analysis was therefore written for the post of school counselor. It was used by these counsellors in the school with a view to determining its effect on teachers' attitude.

1.1 Statement of problem

The problem of this study is to determine whether or not the technique of job analysis affects teachers' attitude to services rendered by school counselor and this will lead us to finding answers on whether the presently used technique in schools is a sufficient condition for eliciting satisfactory teachers' attitude. To also ask whether counselling service without job analysis is a sufficient condition for eliciting satisfactory teacher's attitude to counselling service?

1.2 Objectives of the Study

The main objective of the study is to determine how the use of the techniques can improve teacher's attitudes to counselling service in secondary school. The specific objectives are to:

1. Provide clear understanding on how sampling technique can guide researchers to very accurate definition of how the managerial techniques will be applied.
2. Guide researchers on the application of instrument of measurement with comprehensive precision.

1.3 Scope and Significance of the Study

The study was carried out in Zaria Local Government Area of Kaduna State. It compares pre-treatment and post-treatment scores of teachers' attitude to services of school counsellor. The conceptual scope therefore covers job analysis and attitude in school while the geographical scope is Zaria Local Government Areas. The significance of the study is to have understanding of the practical application of administrative technique of Job analysis for developing the document and empirical verification of its effect on teachers' attitude to services of school counsellors. The purpose of is to establish empirically, a method of improving teachers' attitude to services of school counsellor.

1.4 Statement of Hypothesis

As part of the study, the following hypothesis is hereby stated:

H₀₁: The Administrative technique of job analysis is not a determinant of teachers' attitude to conselling services

2. Literature Review

2.1 Concepts of Job Analysis

This section reviews the existing literature on Job analysis with clear indication of the place of the research within the framework of available body of knowledge in relation to existing practices of the managerial technique and school context in which it is been experimented in a new dimension. Literature available provide adequate theoretical basis for this study. The variables are attitude and job analysis. The dependent variable in this study is attitude. Some authors conceive attitude as intensity of positive or negative effect for or against an object. This is a single component conception because the relation to psychological object is simply evaluative. However, relation to such objects could also be cognitive or behavioural. This is because attitude consists of affective and cognitive components; cognitive component being learned. Several other authors belong to this group of two component definition of attitude.

Dubrin (2009) posits that attitude composed of affective, cognitive and behavioural components that correspond respectively to one's evaluation of, knowledge of, and predisposition to act toward the object of the attitude. This is a three component definition. All these show the level of sophistication in the social psychology of attitude. These studies led to analyses of acquisition, change, and measurement of attitude. In sum, they traced acquisition of attitudes to information and belief systems about the object of attitude. This research assumes that sufficient reinforcement of alternative information and experience alters attitude. The prospect of sampling procedure at this stage is that it guides researcher to raise research question on the gap in knowledge indicated in the assumption. In this way the research question wants to know the result of experimenting independent variable in geographical and conceptual scopes.

In the same vein, the technique of job analysis attracts considerable attention in managerial sciences. Bature (2010) concludes that this is because job analysis is required for recruitment, placement on the job, training and even promotion while at work. The position of this researcher is that the uses of job analysis run through the "life-span" of every service career. Many publications sensitize administrators to the need to explore social and psychological factors that affect attitude in formal organizations. Such uses as placement and promotion are social factors that affect attitude.

In so far as the administrator has to get the work done through others, analyzing the various jobs of these others shall remain of immense importance to him or her. This process by which we articulate what a job entails and the kinds of personnel it requires in terms of skill and experience is simply called job analysis (Torrington, Hall & Taylor, 2005). In concrete terms, the document itself is required for four major administrative processes which however, encompass the whole span of service career in formal organisations. These are the processes of Recruitment and Selection, Compensation, Performance Appraisal and Training (Desler, 1981). The step to be taken in doing a job analysis is five. In steps one analyst "Collects Background Information". Available background information is gathered at this stage. This is usually organisational chart, class specification and job description which states the duties of each job in specific terms. In step two, analysts "Select Representative Position" because the dynamics of

human society and production factors vary duties of same job from time to time. Step three is "Collection of Job Analysis Data". This is the stage in which fact finding process of research is used to collect data on elements of the job, required employee skills and human traits. In step four, data collected in step three is used to articulate in writing the activities of the job. This is "Job Description". The final stage is the Job Specification in which personal qualities required to perform the job are specified from previous information.

2.2 Theoretical Framework

The theoretical framework is focused on outcome variables of Job analysis on perceptions of beneficiaries in formal organizations. For empirical framework, it should be noted that some well established organizations have evolved format for doing job analysis (Desler, 1981). The United States Civil Service Procedure has a very popular format- example of job Analysis. The format is titled Job Analysis Record Sheet. The job analyst simply identifies the tasks of a job and for each one of them; he/she specifies the knowledge, skills, and abilities, physical activities, special environment conditions, work incidents and workers interests that go with them. The United States Department of Labour also designed a format it titled Job Analysis Schedule. Principally, this format shows that specific functions are performed on data, people and things. These functions are given numbers according to degree of difficulty. They are used to indicate the functions that the workers perform in relation to Data, People and Things.

Researchers at Purdue University developed the Position Analysis Questionnaire using a format titled Information Input. Elements of job such as written materials, visual display, and mechanical devices and so on are identified. The degree of difficulty of each element is identified in five point scale. This model is particularly useful in identifying jobs that belong to same class for it does not specify each of the duties done in statement forms. In sum, each of the approaches eventually serves very important ends in administration. This includes providing the required information, motivation and yardstick for evaluating each of the jobs. The question then, is, Does the use of this affect workers attitude to the formal organization? If it does, in what ways does it affect it? Investigation to these was done in this research with a view to extending frontiers of related literature.

3. Research Methodology

The research design is experimental in nature. There were experimental and control groups of samples. The two groups were evaluated before and after treatment were administered on experimental group. Pre-test scores and post-test scores of the two groups were compared to determine effects of treatment. Consideration of what should be the samples and sampling procedure guided the researcher to experimental design as a group has to be given the advantage of treatment in contrast to another group. Also, it guided the research to two research instruments to serve as treatment and measurement of effects of treatment. Beyond this, the consideration of required samples also guides data analysis to compare scores of two groups.

Sampling type in this study is purposive to ensure that basic factors of secondary school such as academic subjects in various spheres of learning and their grouping to required departmental arrangements are present in the two samples while there is statistically sufficient number of personnel for the experiment. The largest two schools in Zaria are chosen. These are Barewa College and Demonstration Secondary School. The focus of this study is teachers of Barewa College and Demonstration Secondary School. While Barewa College is control group, Demonstration School is made experimental group because of its affiliation to university and its academic programme.

On the method of data collection, two instruments were used. These are (1.) Job Analysis Document for School Counsellors and (2) Attitude Scale for School Counselling Services. The two instruments were developed by the researcher in the standard procedures. The first one is treatment that school counsellors used during this study. The researcher used the method of participant observation to develop this treatment as it is consensus position in related literature. The second one is the attitude scale that was used to measure teachers attitude before and after treatment. The researcher developed five point scale instrument in which most positive response is scored five so that the least positive is scored one. Experts in educational management and psychology validated the instruments with inputs. The pre-test and post-test scores of the

control group were compared to ascertain the reliability of the instrument for gathering data. Therefore, data was collected in responses of subjects to the attitude scale.

Descriptive statistical models such as mean and standard deviation were employed to bring out central tendencies and fundamental issues as recommended by Akogun (2008). Inferential statistics were employed at 0.05 level of significance Z score test was conducted on pre-test and post-test scores of control and experimental groups to determine significant difference. T test for related groups was also employed to test for significant difference and degree of correlation between the pre-test and post-test scores of each group. This statistical model is used here because it is appropriate for interval scale when testing for significant difference between two groups that are related.

4. Results and Discussion

With these procedures for data collection and analysis, the following results were obtained from responses to attitude scale. Manually, Z score test was conducted on pre-test and post-test scores of control and experimental groups. With computer, T test was also conducted on the scores.

- (1) For control group, Z score test was conducted for pre-test and post-test scores. While table value at .05 and .01 are 3.84 and 2.58 respectively, calculated value is 1.61. Researchers therefore infer that no significant difference was affected in this group. Computed result confirms this because it's T-value of 1.83 with two - tail probability of .071 rises beyond .05. We therefore infer that there is no significant difference between pre-test and post-test scores of control group.
- (2) For experimental group, Z score test was also conducted on pre-test and post-test scores. While table value at .05 and .01 are 3.84 and 3.58 respectively, calculated value was 4.21. Since the calculated value here is greater than table value, researcher infers that there is significant difference between pre-test and post-test scores of experimental group. Computed result confirms this because its T value of 6.03 at very significant two tail probability of .000 is lesser than that of .05. The researcher therefore infers that a significant difference was affected in this group.
- (3) Control group's mean scores of 64.050 and 62.407 and correlation coefficient of .618 at probability of .000 and experimental group's mean scores of 63.848 and 74.663 and correlation coefficient of .521 at probability of .000 (very significant) confirm that contemporary attitude to school counselling services is not really poor. It is fair. These score also show that it is stable and not easily changing.

5. Conclusion and Recommendations

5.1 Conclusion

Sampling procedure easily guided the summary, conclusion and recommendations after considerable effort. The summary was eventually focused on the events of the groups of samples. The conclusion compared the similarity and differences between the measurements of the two groups and subsequently, the recommendations were focused on the advantages derived from the knowledge of the findings. In this while, the positive result of experiment here validates further the existing theory of positive relationship between managerial techniques and efficiency in formal organization.

Secondary school administrators and indeed the inspectors who assess schools are concerned with how to ensure conducive social and interactional relationships in school (Sanusi, 2011). For this, teachers' attitude to school counselling service has to improve. The technique of job analysis was therefore applied for the job of school counsellor with a view to eliciting improved teachers attitude. Teachers of Barewa College formed control group while those of Demonstration School formed experimental group. Job Analysis Document for School Counsellors was used as treatment on the experimental group only. Attitude Scale for School Counselling Services was used to measure teachers' attitude in the two groups before and after treatment was applied on experimental group.

Statistical analysis of pre-test and post-test scores of the two groups shows that there is significant difference in experimental and not control group. This study therefore confirms that the managerial

technique of job analysis is a veritable instrument of improving teacher's attitude to services rendered by counsellors in schools. The mean scores are however not poor. The result fill existing gap in knowledge that requires social experiment of the independent verifiable on the dependent variable here.

5.2 Recommendations

It is therefore recommended that:

1. Proprietors, managers and job incumbents should ensure adequate usage of Job Analysis Document of School Counsellors in all schools.
2. School administrators and researchers should redefine the problem here as the need for eliciting attitudes that amount to commitment to the course of school counsellors and not a need to alter a poor attitude.
3. For further studies by researchers, attitude scale should be applied at intervals of six months to compare the scores as they improve or depreciate. This will assess rate of success and reveal areas that require greater concentration if there are some.
4. Researchers should also ensure that steps taken and positions arrived at are guided by the nature of samples and sampling techniques applied in the research.

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