Measurement of Attitude of Academicians towards Increased Retirement Age

G.L. Bagdi[1] and Anupama Shah[2]

ABSTRACT

All the 83 selected statements were passed through a group of fifty (50) judges for their responses towards each statement on eleven-point continuum varying from extremely unfavourable to extremely favourable. The thirty (30) judges returned their statements with their ratings. 24 statements having Q value three and less than three were selected for the final scale to measure attitude towards increased retirement age of academicians. It was studied that majority of the old age male and female academicians with high service experience had favourable attitude towards increased retirement age. It was also analyzed that the gender was significantly correlated and inferred that the young male teachers were against and female teachers were favoured the increased retirement age of college teachers.

Key words: Academician, attitude measurement, attitude scale, equal-appearing intervals, retirement age.

INTRODUCTION

According to the Indian University Grant Commission (UGC) directive, the retirement age of college teachers has been increased to sixty-two (62) years. Still some states have kept the retirement age as fifty-eight (58) years. It is true that the retirement of any official or staff of any organization depends on the age of a person. During young age, people have more energy to work. It is believed that after the age of 40 to 45 years the working efficiency goes decreasing. The working efficiency of the staff in an organization also depends on his/her health condition. Every phenomenon in the universe has merits or demerits. It is also true that the senior teachers have vast experience of their duties. Increasing the retirement age of college teachers or officials of any organizations is beneficial to the old persons, who are going to be retired. The older teachers can occupy themselves and of course can also earn money in old age.

METHODOLOGY

The study was carried out during 2012-13 to develop an attitude scale towards increased retirement age of college teachers and scientists. The method of equal-appearing intervals, as originally described by Thurstone and Chave (1929) has been used in this study for developing the present attitude scale to measure attitude towards increased retirement age of college teachers and scientists. Allen L. Edwards (1957) describes the same method of equal-appearing intervals. The following procedure was adopted in constructing the attitude measurement scale.

Collection of attitude statements

The items making up an attitude scale are called statements. A statement may be defined as anything that is said about a psychological object. The first step in the construction of an attitude scale is collection of items, that is, statements that will represent in a particular test the

[1] Principal Scientist, (Agricultural Extension), ICAR-Central Arid Zone Research Institute, Regional Research Station, Bikaner – 334 004 (Rajasthan) [2] Professor & Dean, Department of Extension and Communication, Faculty of Family and Community Sciences, The Maharaja Sayajirao University of Baroda, Vadodara.

universe of interest. Statements covering all aspects of attitude towards increased retirement age of college teachers were made with the help of available literature, subject matter specialists and discussion with scientists. As such ninety (90) statements were prepared.

Editing of statements

Edward (1957) wrote in his book that, Wong (1932), Thurstone and Chave (1929), Likert (1932), Bird (1940) and Edwards and Kilpatrick (1948) have suggested various informal criteria for editing statements to be used in the construction of attitude scales. Therefore, all the statements were edited by applying the fourteen informal criteria and guidelines suggested by above scientists. As a result out of the ninety statements collected initially, the eighty-three (83) generalized attitude statements relevant to increased retirement age of college teachers were selected.

Judges' rating of attitude statements:

All the 83 statements regarding attitude towards increased retirement age of college teachers were given to a group of fifty (50) judges for their rating of unfavourableness and favourableness on the each statement. The judges selected for the study comprised of extension specialists, teachers, professors and subject matter specialists who were engaged in teaching and research from various universities and institutions. The judges were requested to rate each statement on an eleven-point continuum scale. The favourableness of the statements varied from one to eleven points at equal intervals. The point six was considered as neutral. Seven to eleven points were considered favourable and points one to five were considered unfavourable. The points 1st and 11th were extremely unfavourable and extremely favourable respectively on this eleven-point continuum.

Out of the total fifty judges, thirty judges returned their statements after rating and their responses were considered for calculation of the scale values and Q-values of the attitude statements.

Calculation of scale and Q-values

The scale-values and Q-values for all the 83 statements were calculated with the following formulae (Edward, 1957).

Calculation of scale value

$$S = L + (.50 - \Sigma p_b / p_w) \times i$$

Where,

S = the median or scale value of the statement

L = the lower limit of the interval in which the medium falls.

pb = the sum of the proportions below the interval in which the median falls.

pw = the proportions within the interval in which the median falls.

i = the width of the interval and is assumed to be equal to 1.0.

Calculation of Q value

Thurstone and Chave used the interquartile range or Q as a measure of the variation of the distribution of judgements for a given statement. The interquartile range contains the middle 50 per cent of the judgements. To determine the value of Q we need to find two other point measures, the 75th centile and 25th centile. The 25th centile can be obtained from the following formula.

$$C25 = L + (.25 - \Sigma p_b / p_w) \times i$$

Where,

C25 = the 25th centile.

L = the lower limit of the interval in which the 25th centile falls.

pb = the sum of the proportions below the interval in which the 25th centile falls.

p_w = the proportions within the interval in which the 25th centile falls.

i = the width of the interval and is assumed to be equal to 1.0.

The 75th centile will be given by as below

$$C75 = L + (.75 - \Sigma p_b / p_w) \times i$$

Where,

C75 = the 75th centile.

L = the lower limit of the interval in which the 75th centile falls.

pb = the sum of the proportions below the interval in which the 75th centile falls.

pw = the proportions within the interval in which the 75th centile falls.

i = the width of the interval and is assumed to be equal to 1.0.

Then the interquartile range or Q will be given by taking the difference between C25 and C75. Thus

Q = C75 – C25

The interquartile range is a measure of the spread of the middle 50 per cent of the judgment. When there is good agreement among the judges in judging the degree of favourableness and unfavourableness of a statement, Q will be small. A large Q value indicates disagreement among the judges. Thurstone and Chave regard large Q values primarily as an indication that a statement is ambiguous. If a choice is to be made among several statements for constructing the final scale with approximately the same scale values, preference is given to the one with the lowest Q value, that is, to the one believed to be least ambiguous.

Final selection of attitude statements

Based on the scale value and Q value, the statements were finally selected to constitute the attitude scale taking into account the following criteria. The statements should have smaller Q values as far as possible. The scale value of the statements should be fairly distributed throughout the continuum. There should be statements indicating both favourable and unfavourable attitudes. Based on these criteria, the statements for con-structing the scale to measure attitude towards increased retirement age of college teachers were finally selected. Twenty four (24) statements, having Q value of three and less than three were selected.

Final format of the scale and scoring procedure

The attitude statements finally selected have been randomly arranged in the final format of the scale. There were two columns in the final format of the attitude scale for responses of respondents as agree or disagree to the statements. The final format is given in Table 1.

Table 1: Scale to measure attitude towards increased retirement age of academicians.

Attitude statement	Scale value	Agree	Disagree
The older teachers have more experience of teaching.	9.94		
The older teachers may give correct instructions to their young colleagues to carry out the work.	8.83		
The older teachers have more knowledge about their job.	8.00		
The older teachers are more trustworthy than the younger teachers.	6.3		
I think that the older teachers are bad tempered on the job.	3.3		
The older teachers are absent more often than younger teachers.	4.0		
By increasing the age of retirement, the problem of unemployment for young generation will be increased.	4.0		
I believe that as the age increases the efficiency to do the work decreases.	4.0		
The age of the teachers has no effect on the mistakes during the job.	6.0		
The quality of teaching has no relevance with the age of teacher.	6.0		
The older teachers have practical knowledge about the teaching.	9.8		
The older teachers are unduly conscious about their self-respect.	5.7		
The older teachers try to maintain their good behaviour with the staff colleagues.	7.0		
The younger teachers get opportunity to learn good skill of teaching by the company of older teachers.	8.9		
The younger teachers are very enthusiastic in doing their duties.	5.0		
The younger teachers have more creativity in teaching.	2.0		
Organizational climate is better with young teachers due to their supportive attitude with the colleagues.	6.0		
The younger teachers are often persuasive in nature during teaching.	6.0		
The younger teachers assist the older teachers in their duty works.	5.0		
The older teachers have knowledge of administrative rules and regulations.	9.6		
The older teachers have weak audio and visual capabilities.	4.0		
The older age teachers are capable to control students in difficult situations.	8.6		
The age of teachers has less relevance with learning ability of teachers.	6.0		
The teachers should retire at 55 years of age, because the universities may face financial crisis.	3.6		

Reliability of the scale

The reliability of the scale was analyzed with the help of test–retest method. The scale was administered twice to thirty (30) college teachers at an interval of one month. The respondents were randomly selected from the different institutions.

The total score of a person on all the items was divided by the total number of the items to determine score of an individual on the scale (Shah and Gupta, 1993). The correlation coefficient was calculated and the r-value 0.898 was determined, which is highly significant at 1 per cent level of probability. It indicates that the scale is reliable and has the degree of dependability on the scale for measuring the attitude of teachers towards increased retirement age of college teachers. It established that the scale is a reliable instrument for the measurement of attitude towards increased retirement age of college teachers.

Validity of the scale

"A scale possesses validity when it actually measures that it claims to measure", Goode and Hatt (1981). The validity of the scale was examined with the help of content validity method of determining how well the contents of the scale represented the subject matter under the study. The contents of the attitude scale were derived from various literature and discussion with teachers and subject matter specialists. All the edited statements of the scale were passed by the different teachers and scientists. Hence, the present developed scale satisfied the content validity.

The present investigation on difference in attitude of male and female college teachers towards increased retirement age was carried out with help of the developed attitude scale. The college teachers and scientists from different universities and institutions were taken as respondents for the present investigation. The respondents were selected randomly from Maharaja Sayajirao University of Baroda, Gujarat Agricultural University, Anand campus, Central Soil and Water Conservation Research and Training Institute, Research Centre, Vasad and Institute of Rural Management Anand.

The developed scale was distributed to 100 male as well as female respondents by post or by hand to assess the attitude of college teachers towards increased retirement age and relationship with other variables included in the study. The responses from the respondents regarding attitude towards increased retirement age were asked on dichotomous response system as agree or disagree towards each attitude statement. The responses on the other independent variables included in the study were asked to tick mark on multiple choices. Seventy respondents (22 male and 48 female teachers) were returned the scale after giving their responses. For quantifying the data, each response of "agree" was assigned scale value of the statement as a score.

The disagree response was assigned no score. The individual attitude scores of all the respondents were also calculated with the help of the scale values assigned to agree responses of respondents'. The individual attitude score of a respondent is equal to sum of scale values obtained by respondent on all agree responses and divided by total number of agree responses. The Individual Attitude Score (IAS) of a respondent can also be computed by following formula.

$$IAS = \frac{Sum\ of\ values\ obtained\ by\ respondent}{Total\ number\ of\ agree\ responses}$$

The overall group attitude score towards increased retirement age can also be computed with the following formula.

$$Group\ Attitude\ Score = \frac{\sum_{i=1}^{N} IAS}{N}$$

Where,

IAS = Individual attitude score

N = total number of respondents

According to the method of equal–appearing intervaled as described by Thurstone and Chave (1929), the attitude was divided into three levels as unfavourable attitude, neutral attitude and favourable attitude on 11 points continuum scale. The scale values from 1 to 5 points were considered as unfavourable attitude, 6 point was considered as neutral attitude and from 7 to 11 points were considered as favourable attitude. The scale values 1 and 11 were considered as extremely unfavourable and extremely favourable attitudes respectively and the middle value is neutral attitude. Therefore, the middle value of the 11 point continuum scale will be 5.6 to 6.5 and it was considered as neutral attitude value in this study. The respondents were grouped into three categories such as unfavourable attitude, neutral attitude and favourable attitude with individual attitude scores up to 5.5, 5.6 to 6.5 and 6.6 to 11.0 respectively (Shah & Gupta, 1993).

RESULTS AND DISCUSSION

Gender attitude of young and old age academicians:

The data in Table 2 resumed that out of the total young male teachers 50 per cent were having negative attitude as well as 50 per cent were having positive attitude. Whereas, 57 per cent of old male teachers were having positive attitude, 42 per cent were having neutral attitude and none of having negative attitude. Therefore it shows that old male teachers were having more positive attitude towards increased retirement age. Whereas, young male teachers were having negative attitude.

In case of young female teachers, the majority of 69 per cent were having positive attitude, 23 per cent having neutral attitude and followed by one 7 per cent were having negative attitude. In another case, the majority of 90.9 per cent of old female teachers were having positive attitude and only remaining 9 per cent were having neutral attitude and none of shown negative attitude. It shows that majority of old female teachers were having positive attitude towards increased retirement age of collage teachers.

In comparison of both male and female teachers, it was resulted out that 50 per cent of young male teachers having negative attitude, whereas, only 7.69 per cent young female teachers didn't like to increased retirement age. The majority of old male and female teachers exhibits positive attitude towards increased retirement age.

Table 2: Gender attitude level of young and old college teachers and scientists towards increased retirement age.

n=70

Attitude Level	Male (n=22)		Female (n=48)	
	Young (n=8)	Older (n=14)	Young (n=26)	Older (n=22)
Negative	50.0%	0.0%	7.69%	0.0%
Neutral	0.0%	42.85%	23.08%	9.09%
Positive	50.0%	57.14%	69.23%	90.91%
Total %	100.0	100.00	100.00	100.00
Group attitude score	6.4	6.9	6.75	

Attitude of less, middle and high experienced academicians

All the less service experienced male respondents were having negative attitude, whereas , all the middle service experienced male respondents were having positive attitude. The majorities 57 per cent of high experienced male respondents were also having attitude, 42 per cent were having neutral attitude and none of have negative attitude increased retirement age.

Whereas, in case of female respondents 50 per cent of less experienced female teachers were having positive attitude and 25 per cent teachers were having neutral and also 25 per cent shown negative attitude towards increased retirement age. 80 per cent middle experienced female teachers were having positive attitude and 20 per cent neutral attitude. 90 per cent of high service experienced female teachers were having positive attitude, only 10 per cent neutral and none of having negative attitude towards increased retirement age of college teachers (Table 3).

Table 3: Attitude level of less, middle and high experienced male and female college teachers towards increased retirement age.

n=70

Attitude Level	Male (n=22)			Female (n=48)		
	Less experience (< 6 years) (n=4)	Middle experience (6-15 years) (n=4)	High experience (>15 years) (n=14)	Less experience (< 6 years) (n=8)	Middle experience (6-15 years) (n=20)	High experience (>15 years) (n=20)
Negative	100.0%	0.0%	0.0%	25.0%	0.0%	0.0%
Neutral	0.0%	0.0%	42.86%	25.0%	20.00%	10.0%
Positive	0.0%	100.0%	57.14%	50.0%	80.00%	90.0%
Total %	100.0	100.0	100.0	100.0	100.00	100.0

Interrelationship of personal variables with increased retirement age of academicians

A set of five variables were studied in the present investigation that is: (i) Gender: female and male, which were dummy scored as 1 and 2 respectively (ii) Age: it is chronological age of respondents in years (iii) Education: M. Sc. teachers ere given scores as 1, M. Phil. teachers were scored as 2 and Ph. D. teachers were scored as 3 (iv) Service experience: it is academic teaching experience by respondents in years. (v) Increased retirement age: it was measured with the help of developed attitude scale and individual attitude scores ere calculated for analysis.

The correlation analysis (Table 4) of the four independent variables *i.e.* gender, age, education and service experience with the dependent variable *i.e.* increased retirement age of college teachers were computed It is important to note that the variable gender was found negatively high significantly correlated with increased retirement age of college teachers at 1 per cent level of probability. Thus, the male respondents were against the increased retirement age of college teachers whereas, female teachers were interested to increase their retirement age. Age and service experience were found positively high significantly correlated with increased retirement age at 1 per cent level of probability. It means old teachers desired to increase the retirement age and the high service experienced teachers were also intended to increased retirement age.

Table 4: Correlation analysis of increased retirement age of college teachers and scientists.

n=70

Variables	Correlation value (r)	T value
X_1 Gender	-0.379**	3.376
X_2 Age	0.341**	2.992
X_3 Education level	0.204	1.722
X_4 Service experience	0.352**	3.099

** Significant at 1 per cent level of probability.

CONCLUSION

It could be concluded from the present investigation that majority of female teachers than the male teachers were having positive attitude towards increased retirement age of college teachers. The young male as well as female teachers having less service experience were exhibited negative attitude towards increased retirement age. Whereas, majority of old age male and female teachers having high service experiences were desired to increased retirement age. The correlation analysis was also explained that by increasing the age and service experience of teachers the attitude towards

increased retirement age was increases. It may be due to that the people want to work and earn money in old age. It is also important to conclude that the male teachers were against and female teachers were favoured the increased retirement age of college teachers. It may be exhibited due to that women now desired to widen their work place boundaries from home to different institutions. Women may also want to become financially independent by earning money and not to be dependent on spouse.

The scale to measure attitude towards increased retirement age of academicians was developed. It will be useful to researchers to measure the attitude towards increased retirement age of staff personnel.

REFERENCES

Bagdi, G. L. & Anupama Shah. (2012). Attitude of Academicians towards Increased Retirement Age, *Indian Journal of Extension Education,* Vol. 48, (3&4): 69-72.

Bagdi, G. L. (2004). A Scale to Measure Attitude Towards People's Participation in Soil and Water Conservation Programme, *Indian Journal of Extension Education* Vol. 40, (1&2): 119-121.

Edward, A.L. (1957). Techniques of Attitude Scale Construction, Appleton Century Crafts, Inc. New York, PP: 83-119.

Ferguson, G.A. (1981). Statistical analysis in psychology and education (fifth edition). New York: McGraw-Hill, pp: 419-432.

Goode, W.J. and Hatt, P.K. (1981). Methods in Social Research, McGraw - Hill Book Co., Singapore.

Pandit, R. (2000). The Sunday Times of India, Ahmedabad, October 8, 2000.

Shah, Anupama and Gupta, A. (1993). Measurement Techniques for Affective Behaviour, Department of Home Science Education and Extension, Faculty of Home Science, M. S. University of Baroda.

Thurstone, L. L. and Chave, E. J. (1929). The Measurement of Attitude, Chicago: University Chicago Press.