Research Paper

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Restandardization of Emotional Intelligence And Adjustment Inventories Under North-East Indian Conditions

EDUCATION

KEYWORDS : Pilot Study, Re-tandardization, Emotional Intelligence and Adjustment Inventories.

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ABSTRACT

The investigator has selected two standardized tools for re-standardization through pilot study; these two tools were developed to assess the emotional intelligence and adjustment of secondary school teachers. The present Pilot studies are undertaken to test the Emotional Intelligence and Adjustment Inventories, what to be used for a larger study; for data collection. Pilot study serves as a guide for a larger study. Mangal's(2008) Teachers Emotional Intelligence Inventory (tEQi,) actually standardized at Noida. Mangal's(1996) Teachers Adjustment Inventory(TAI) also standardized at Rohtak. To test their applicability under North-East Indian conditions in the larger sample; and whether these two inventories are fit for this situation. The pilot studies for re-standardization were conducted on hundred secondary school teachers selected by simple random basis from the five different schools of Kamrup Urban, Assam. On completing the test, the researcher found comfortable in administering and scoring all the tests. Subjects found emotional intelligence and adjustment inventories are very simple and relevant to the daily life situations of the teachers.

INTRODUCTION

The 'Teacher Adjustment Inventory' (TAI), (1996), developed by Dr. S.K. Mangal, to assess level of adjustment of school teachers. And 'Teachers Emotional Intelligence Inventory' (tEQi), developed by Dr.(Mrs.) Shubra Mangal (2008) at Noida, for the assessment of School teachers emotional intelligence. These two inventories have been selected by the investigator for re-standardization through pilot studies.

This inventory (TAI-1996) consists of as many as 253 items written in question forms which revolve round five factors or areas viz., i) Adjustment with academic and general environment of the institution, ii) Socio-psycho-physical Adjustment, iii) Professional relationship Adjustment, iv) Personal life Adjustment and v) Financial Adjustment and Job-satisfaction.

This scale has been standardized at Haryana. The test-retest method of reliability coefficient was estimated to be +0.99 and the coefficient of correlation obtained by split-half method was also +0.99 for total adjustment. Three type of validity have been established for the inventory- (i) Content validity, (ii) Construct or factorial validity, (iii) Criterion related validity. And validity coefficient was estimated to be -0.967 (as per Bell's Adjustment Inventory) and -0.969 (as per the ratings of the Headmasters).

Mangal's (2008) Teachers Emotional Intelligence Inventory (tEQi) was developed for assessing emotional intelligence of school teachers in Indian context. The inventory consists of as many as 200 items to search for the fundamental dimensions of teacher's emotional intelligence. These 200 items were written in question forms which revolve round four factors or areas viz., (i) Awareness of self and others, (ii) Professional Orientation, (iii) Intra-personal Management or self regulation and (iv) Inter-personal Management.

This inventory was standardized at Noida. Reliability of the inventory was established through two methods; (a)Test- Retest Method, (b)Split-Half Method. The Test-retest method of reliability coefficients was estimated to be +0.99 and by Split-half method +0.95.

To assess the accuracy of the tool, three types of validity measures were obtained; (a) Content Validity, (b) Construct Validity and (c) Criterion Related Validity. Here investigator made use for the two different external criteria namely; i) Mangal's Teacher Adjustment inventory(MTAI) found 0.55 and ii) Ratings of Teachers by their Headmasters found 0.65.

The following objectives were framed for re-standardization through Pilot studies of both the emotional intelligence and adjustment inventories.

Objectives of the Pilot Studies

- To familiarize the researcher with psychological Materials.
- To validate the applicability of the test.
- To find out Descriptive position of the data.
- To find out the criteria of a Good test.
- To find out the Norms of the Inventories.

Data Collection

The procedure followed in data collection were as follows:

Initially, schools in Kamrup Urban were selected and head of the institutions were met to seek permission for collecting the data. Depending on the convenience of both subjects and the authorities, dates were given for collecting the data. Informed consent was obtained from all participant teachers. The tests were administered in group and orientation address was delivered to establish rapport before handing over the Questionnaire. After handling over the questionnaire the subjects were instructed to read the directions on the cover page of the test booklet and fill the information in the proper space provided. Sufficient time was given to complete the tests. Clarifications were made as and when required to the subjects and explanation was also given in local as well as English language. After completion of the tests the answer sheets and questionnaire were counted and collected from the teachers. The pilot studies for re-standardization were conducted on hundred samples i.e. hundred secondary school teachers selected by simple random basis from five different schools of Kamrup Urban, Assam.

Processing the data

First of all processing and cleansing of the collected data was carried out under following steps:

- In complete records were checked but found all the records correctly filled up and total return number records were hundred.
- Then the collected data were checked for inconsistent records or whether the subjects were putted ticked marks on both the options, but found nothing. Again, total numbers of corrected records were hundred.

So, after collecting data, the researcher becomes concerned six things and all these done manually. Only coded of data and highest to lowest form of data were arranged with the help of MS Excel.

After data collection the six different steps were followed by the investigator i) Checking the questionnaires, ii) Sorting out, iii)

Summarizing the data in tabular form, iv) analyzing facts so as to bring out their salient features, i.e. search for trends and relationships, v) Interpreting the results, converting data into statements, or conclusions which ultimately answer of the specified objectives, and vi)writing or presenting the report.

Thus, the method of converting raw data into meaningful statements includes data processing, data analysis and data interpretation and presentation; all these methods were followed by the investigator.

Interpretations and Findings

Quantitative survey data were both manually as well as through Excel processed, analyzed and results are reported i.e. interpretation of the results on emotional intelligence and their correspond adjustment scores of secondary school teachers are done, in accordance with the objectives framed.

Interpretations for both the inventories are made carefully with the help of measures of Central Tendency, Measures of Variability and with the help of percentile norms. So, in order to test the distribution of scores along the lines of normality, the Mean, Median, Mode, Standard Deviation, Q_1, Q_3. Q, P_{90}, P_{10}, Skewness and Kurtosis have been computed and presented in the table:1 and 2 respectively.

Descriptive Position of data: Emotional intelligence Inventory.

Table:1

Descriptive Measures of Emotional Intelligence of the secondary school teachers in Pilot Study.

Variable	N	M	Mdn	Mo	SD	Q_1	Q_3	Q	Sk	Ku
Emotional intelligence In Total	100	824	858.32	926.96	130.86	749.5	928.4	89.45	-0.656	.248

On perusal of the above table, it is found that median is higher than mean. Again, when Q value of (89.45) obtained in this distribution on addition to the Q_1 value of (749.5) becomes (838.95) or subtraction from the Q_3 value of (928.4) yields value of (838.95) closer to the median value, but not the same one. This indicates slight deviation of scores from normality. Further normality of this distribution has been studied as suggested by Garrett(2011). The skewness value was estimated(-0.656) and kurtosis value was(.248), which is negligible amount of less than(.263) of normal distribution. All these imply that this distribution is slightly negatively skewed and leptokurtic distribution in nature.

The scores were distributed almost normally with a little deviation in regards to the emotional intelligence of teachers. It may be due to the small size and non-normal distribution of sample chosen by the investigator.

Descriptive Position of data: Adjustment Inventory.

Table:2

Descriptive Measure of Adjustment of the secondary school Teachers in Pilot Study

Variable	N	M	Mdn	Mo	SD	Q_1	Q_3	Q	Sk	Ku
Adjustment in Total	100	481.25	477.002	468.51	68.04	423.38	519.94	48.28	.19	.259

On perusal of the above table, it is found that median(477.002) is smaller than mean value of (481.25). The Q value of(48.28) on addition to the Q_1 value of (423.38) becomes (471.66) which is closer to be median value of(477.002). Again Q value (48.28) on subtraction from the Q_3 value of (519.94) yields value of (470.66), which is closer to the median value. This indicates a negligible amount of deviation of score distribution from normality. Further normality of this distribution has been studied as suggested by Garrett (2011). The skewness value has estimated to (.19) and kurtosis value is (.259) which is negligible amount of less than (.263) of normal distribution. All these imply that this distribution is slightly positively skewed and leptokurtic distribution.

Thus, the scores were distributed almost normally with a little deviation in regard to the adjustment of teachers. It may be due to the small size and non-normal distribution of sample chosen by the investigator.

Evaluation of the Scales

For wider applicability of both the scales the investigator has estimated its co-efficient of Reliability and Validity.

RELIABILITY TEST

In order to obtain the measures of stability, these two scales were re-administered over the twenty percents of the previous samples selected by lottery method adopted to draw the sample by simple random basis; after a time gap of twenty five days.

i) Reliability test of emotional intelligence inventory

The co-efficient of correlation between two sets of obtained scores of emotional intelligence was computed by Pearson Product Moment Method and was found to be(+0.974). The Spearman-Brown Prophecy formula yielded the split-half reliability of this emotional intelligence scale to be (+0.994). Further more, 't' value between the two sets of means has been found to be significant at 0.05 level adding further towards the reliability of the scale.

While comparing the emotional intelligence's obtained value of correlation with similar study conducted earlier, it was seen that Hyde, et al. (2002) calculated split-half reliability co-efficient was found to be (0.88).

ii) Reliability test of adjustment inventory

Similarly, the co-efficient of co-relation of adjustment score computed by split-half and Pearson's Product Moment Method and test-retest method found to be (+0.995) and (+0.984) respectively. Again, 't' value between the two sets of means has been found to be significant at 0.05 level adding further towards the reliability of the scales.

While, adjustment reliability compared with similar study on adjustment of the teachers conducted earlier; Asthana (2008) found out split-half and test-retest reliability co-efficient within the range of (0.80) to (0.92).

Thus, Guildford et al. (1985) has described that the measures of reliability in the range of (+0.80) to (+0.90) are commonly reported for standardization.

iii) CONTENT VALIDITY: Emotional intelligence and Adjustment inventory

The content validity of the scales also have been studied by experts and specialists through the checking up linguistic accuracy of items and any kind of printing errors.

In addition to this, Garrett (2011,p-356)has suggested that the index of reliability is sometimes taken as a measure of validity. As per this the obtained reliability co-efficient will yield a value of Validity through the formula or $r_{1\infty} = \ddot{O}r_{11}$ (Garrett2011,p-356).

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Therefore, here the obtained reliability co-efficient of emotional intelligence scale (0.994) and adjustment scale(0.995) will become,Ö0.994 or (0.997) and Ö0.995 or (0.997) respectively. These suggests that both the present scales truly measures the emotional intelligence and their correspond level adjustment of the selected teachers to the extent expressed by and r of (0.997).

All the above test of reliability as well as validity helped the investigator to draw the conclusion that these two Scales have both high degree of stability i.e. reliability and validity.

Norm Fixation

Once reliability and validity were established, the investigator has attempted to prepare a table of norms for interpretation of raw scores obtained in pilot studies of emotional intelligence and adjustment inventories with the help of percentiles by Garrett(2011), which depicted in the table: 3 and 4 respectively.

Table: 3

Norms for Interpretation of Raw scores of emotional intelligence inventory in Pilot Study.

N=100

Norms	Emotional Intelligence
Mean(M)	824
Standard Deviation(SD)	130.86
Normal Range	750-925
High	930 and Above
Low	741 and Below

Table:4

Norms for Interpretation of Raw scores of adjustment inventory in Pilot Study; N=100

Norms	Adjustment
Mean(M)	481.25
Standard Deviation(SD)	68.04
Normal Range	425-520
High	522 and Above
Low	423 and Below

The obtained Percentile norms of emotional intelligence and adjustment raw scores may be qualitatively described with the help of following table:5.

Table:5

Qualitative Description of the obtained Percentiles Rank of Emotional intelligence and Adjustment Inventories.

Percentile Rank	Description	No. of teachers According to Emotional Intelligence scores	No. of teachers According to Adjustment scores	Interpretation
P_{90} and Above	Very High	13 teachers (975-984)	3 teachers (579-580)	High EmotionalIntelligence consequently High adjustment
P_{89} TO P_{75}	High	14 teachers (930-965)	29 teachers (522-578)	
P_{74} TO P_{26}	Average	59 teachers (750-925)	43 teachers (425-520)	Average EI consequently Average Adjustment
P_{25} TO P_{11}	Less Average	12 teachers (612-741)	16 teachers (394-423)	Low EI consequently low Adjustment of the teachers.
P_{10} and Below	Very less Average	2 teachers (607-609)	9 teachers (358-391)	

Keeping in view its various psychometric properties and norms of the scales according to different types of interpretation confirm that present scales are satisfactory tools for assessing emotional intelligence and level of adjustment of the secondary school teachers.

Teacher Adjustment Inventory of Mangal(1996) is an attempt to assess the adjustment of the secondary school teachers. This is a self assessment device that helps to identify teachers who are better adjusted and who are maladjusted or poorly adjusted. This inventory is also quite popular among the researchers engaged in the field of education and psychology as seen in the studies of Sahoo (1998), Kulasrestha and Dave (2003) and Nayak (2005). Hence all these factors justify that this inventory is a suitable instrument for collection of data on adjustment variable of teachers in the North East Indian situation among large sample.

The tEQi has immense uses in the field of education and research. It has psycho diagnostic uses where it can be used to identify teachers with high and low EQ. It can be used to assess EI of teachers and give them pre-service & in-service training. It can be used to map and develop any of four factors of EI of teachers. It can be used as a self-assessment device to help the teachers in modifying and adjusting their behaviour according to the demands of the situation.

This inventory are also quite popular among the researchers engaged in the field of education and psychology as seen in the previous different studies. As seen in the studies of Pradhan (2012), Roka (2012). Hence all these factors may justify that this inventory is a suitable instrument for collection of data from large samples on the variables of Emotional Intelligence of the school teachers in the North East Indian condition.

Thus, theses two tools can be properly applied for further research in the large sample in the North East Indian situation.

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