

Construction and standardisation of institutional climate scale for master of education (M.Ed) students

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Abstract

Institutional Climate largely depends upon the classroom activities that can be described as a process of interaction between the teacher and the taught, between classroom group and the teacher and between the students (individuals). The institutional climate plays a crucial and vital role in a research and producing the desired results. Institutional climate is multi-dimensional and influences many individuals, including students, parents and the community at a large. Additionally, Institutional climate can put significant impact on educational environments, this paper deals with the development and standardization of Institutional climate for M.Ed students. At the initial stage, the scale consisted of 96 items. Then the number of items was reduced to 66 after extensive scrutiny by the subject experts. Subsequently item analysis was carried out with help of the appropriate statistics. The t-test and factor loading used to standardize and finally 36 items were retained in the final tool. The reliability was computed by Cronbach's alpha to be 0.934. The content validity of the scale was assured by evaluation from subject experts. This tool will be very useful for the investigator/research student to measure the extent of Institutional climate perceived by M.Ed/PG Students in respect to their Research activity during the course or completion of the dissertation work.

Keywords: institutional climate, construction

Introduction

Education occupies a very strategic position in and around the globe. It is important not only for the full development of one's personality, but also for the sustained growth of the nation. The progress of the nation depends upon the progress of the society and the progress of the society depends upon the progress of its people and progress of people is not possible without proper system of education. Therefore development of any nation is directly linked with the system of education. Education is the foremost and one of the important needs and the right of every individual. It helps in solving the problems of the individual as well as society at a large such as illiteracy, poverty and unemployment. In order to overcome the problems, it is felt the need of new innovation and research activities. Quality researches always necessitate the smooth climate where there is good correlation among the members of the institution.

A supporting institutional climate likely creates a positive attitude and facilitates learning, whereas a non-supportive climate is likely to create a negative attitude (Swarupa, 2014). Institutional Climate largely depends upon the classroom activities that can be described as a process of interaction between the teacher and the taught, between classroom group and the teacher and between the student (individuals). The institutional climate plays a crucial and vital role in a research and producing the desired results. Institutional climate is multi-dimensional and influences many individuals, including students, parents and the community at a large. Additionally, Institutional climate can put significant impact on educational environments, as Freiberg (1998) ^[3] notes, "Institutional climate can be a positive influence on the health of the learning environment or a significant barrier to learning".

Institutional Climate bears a significant relationship with the

research work. Institutional climate refers to the impressions, beliefs, and expectations held by members of the Institution about their institution as a learning environment, their associated behaviour, and the symbols and institutions that represent the patterned expressions of the behaviour. It includes the explicit mission and policies expected to create positive relationships, attitudes or dispositions and perceptions. The formation of a positive Institutional climate requires the shared recognition and commitment of the members of the Institution where the students learning as a prime focus. A good institutional climate is one which need for intellectual and institutional leadership, need for a competent and caring teaching staff who share common goals with students, parents, and the community. A positive Institutional climate includes an identifiable, open and nurturing institutional ethos that attempts to foster a sense of responsibility and efficacy among students and staff. There is mutual respect and collaboration among administrators, teachers, students, parents, and the community. Above all, there is an atmosphere of conscious commitment to foster the well-being, academic achievement and civic development of students. A variety of factors contribute to the establishment of an Institutional climate. These include external factors (particularly characteristics of the larger community of which the institution is part); public policies (of state, district, and local government); and the history of the institution, its culture, administrative leadership, the preparation and characteristics of the teaching staff, and the students themselves. Characteristics of institution, such as the physical structure of a building of the institution and the interactions between students and teachers, are two diverse factors that both affect and help to define the broad concept of institutional climate. Institutional climate has been researched for many years and continues to be examined and redefined

as a result of its significant influences on educational outcomes. The elements that comprise an institutional climate are extensive and complex.

Expert Opinion

Scholars in the field of Education validated the items. They were requested to judge the suitability of the items. Out of 96 items, 30 items were rejected by most of the judges. There were at least sixteen items in each dimension. Tool consist of four dimensions i.e. Administrative, academic, physical and social climate. The Institutional climate scale consists of 66 items.

Pilot Study

In order to make the scale efficient and useful, the relevance of a particular item was determined in terms of its relationship with various dimensions of Institutional climate. The items were thoroughly screened and edited. The items which were overlapping were carefully examined.

Now the scale with 66 statements measuring Institutional climate was ready for administration. For the pilot study, this scale was administered on the sample of 50 students studying in different colleges. The items were to be responded in likert scale i.e. Strongly Agree (SA), Agree (A), Neither (N), Disagree (D), and Strongly Disagree (SD). The scoring procedure as 5 for strongly agree, 4 for agree, 3 for neither, 2 for disagree and 1 for strongly disagree were assigned for the positive statements. It is in reverse order for the negative statements. Thus the maximum score for a statement is 5 and the minimum is 1.

Analysis and Selection of the Item

Pre-tryout was attempted on 50 students. The administration of the scale was done with the view to know the deficiencies and difficulties of the students in answering the items. The language of the sentences was also improved with reference to sentence structure and vocabulary. After making these changes, 36 items were shortlisted from 66 items.

The responses of the subjects were scored as per allotted weightage. The weighted score for each item and for each subject were summated. On the basis of total scores, 27% subjects with high scores i.e. high group and 27% with low scores i.e. low group were identified (Kelly 1939) [6]. Item analysis was done by the method of discrimination index (suggested by Edward, 1957) [2] and Factor analysis. Their scored responses in terms of weighted scores for each item were worked out. Item analysis was carried out by employing the t-test and factor analysis for 66 items for group with high and low scores. The t-test was computed for the higher and lower score groups to find discriminating power of each item. Thus, the significance of difference between the means of scores of high and low groups was worked out to find out the discriminating power of each item i.e. how well each statement could be distinguished on the basis of the value of t-test, between students with high and low scores on institutional climate scale. Items having significant difference in mean scores between upper and lower groups ($t > 1.96$) can be considered for the final scale (Edward 1957) [2] Items with positive and significant t-test value at 0.05 level of confidence and factor loading more than .50 were selected for the scale. The t-test of 36 items was found to be significant at the 0.05 level of significance.

Table 1: Calculated t-value and factor loading of all items

Sl. No	t-value	Factor loading	Sl. No	t-value	Factor loading
Item No 1	1.696		*Item No 34	2.396	.600
Item No 2	3.104		Item No 35	.637	
*Item No 3	3.400	.637	Item No 36	2.506	
*Item No 4	2.500	.603	Item No 37	-1.212	
Item No 5	-.258	.522	Item No 38	1.955	
Item No 6	1.801		Item No 39	1.434	
*Item No 7	2.530	.545	*Item No 40	5.014	.789
Item No 8	1.161	.621	*Item No 41	2.436	.564
*Item No 9	2.419	.650	*Item No 42	2.616	.682
*Item No 10	2.122	.592	*Item No 43	5.014	.631
Item No 11	1.629	.503	*Item No 44	2.687	.526
*Item No 12	2.563	.554	*Item No 45	3.484	.528
Item No 13	-1.319		*Item No 46	4.470	.631
Item No 14	.988		*Item No 47	3.121	.776
*Item No 15	1.974	.733	*Item No 48	3.510	.748
Item No 16	.144		*Item No 49	3.513	.635
*Item No 17	2.061	.511	Item No 50	4.016	
Item No 18	1.319	.573	*Item No 51	5.303	.798
*Item No 19	3.646	.775	Item No 52	1.674	
Item No 20	1.077		Item No 53	1.083	
*Item No 21	2.242	.665	*Item No 54	4.225	.646
Item No 22	1.622	.578	*Item No 55	2.696	.519
Item No 23	-1.403		*Item No 56	3.107	.593
Item No 24	1.205		Item No 57	1.492	
*Item No 25	3.242	.741	*Item No 58	2.954	.580
Item No 26	2.015		Item No 59	1.588	
*Item No 27	3.547	.749	*Item No 60	3.066	.683
Item No 28	-1.829		*Item No 61	2.228	.656
Item No 29	1.179	.543	Item No 62	1.947	.701

*Item No 30	2.635	.596	Item No 63	.310	
*Item No 31	2.086	.552	Item No 64	2.855	
*Item No 32	3.510	.578	*Item No 65	2.985	.696
*Item No 33	3.631	.615	*Item No 66	2.828	.513

* Selected items on the basis of t- test value and factor loading.

Reliability Analysis of Institutional Climate scale

Reliability refers to the accuracy of the score in the sense of their stability or precision. The Cronbach's alpha was adopted for the calculation of reliability coefficient for the present tool. The value of reliability coefficient for the whole test is 0.934. Hence the scale is reliable.

Validity Analysis of Institutional Climate scale

The validity of a test, or of any measuring instrument, depends on the fidelity with which it measures what it purports to measure (Garrett, 2011) ^[4].

The content validity of a scale involves the systematic evaluation of the test. It covers all content which is necessary for the particular test. The scale has content validity, as it was developed with the assistance of subject experts in the field of education. Besides these items of the scale were selected after carefully analyzing the definitions of Institutional climate Scale, hence scale has fair degree of content validity.

Conclusion

It is hopeful that this scale would be helpful to measure perceived institutional climate of M.Ed student. Hence this tool will be very useful for the investigators, research students and those who would like to measure the extent of institutional climate perceived by the M.Ed/PG Students in respect to their Research activity during the course or completion of the dissertation work.

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