Validation of Teacher Self-Efficacy for Moral Education Scale in the Indian Context

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The researcher validated Teacher Self Efficacy for Moral Education (TSEME) scale developed initially by Narvaez et al. (2008), in Australia, in the Indian context. Four hundred teachers teaching moral education to middle school students from 17 elite schools in Punjab and Haryana, states of India, were the sample subjects of the study. The two dimensions of Teacher efficacy for Character education, namely personal and general efficacy, with their Cronbach's alpha being 0.87 in the Indian context, were extracted. The model was tested for the goodness of fit using the IBM SPSS AMOS Version 23. The estimates like TLI, CFI, CMIN/DF, and RMSEA were seen to satisfy the benchmark values. The result indicated that the tool could be administered in the intended population in the Indian context.

Keywords: teacher self efficacy, character education, personal teacher efficacy, general teacher efficacy

INTRODUCTION

Moral education is one of the crucial factors in today's education system. According to Lewis (2012), imparting education without values makes a man a clever devil. Theodore Roosevelt (1913) stated that, "to educate a man in mind and not in morals is to educate a menace to society." Paying attention to bettering moral values is needed when brothers are killing each other, humans forget that they are from the same species, and keep fighting against each other. Everything in the Universe is seen as a few peoples' possession, neglecting most people on the brink of poverty, injustice, malnutrition, and ill-treatment. It is time to return to our roots and find the human filled with compassion, empathy, and love. Teachers train young minds and hearts and interact with thousands of lives during their teaching careers. If they have direction and orientation, they are people we can look up to and bring in a challenging transformation in the value system of humanity.

The concept of self-efficacy arises from the social cognitive theory of behavioral change. As proposed by Bandura (1977), it points to a teacher's reliance on the capability to deal with the given assignments and duties related to their career and role as a teacher (Caprara et al., 2006). In their study based on frontline workers, Sousa et al. (2012) showed that the personal value of workers is an essential factor in predicting workers' self-efficacy. Schwartz (1992, 2012) identified ten specific primary types of values, including *power,* which includes the social status of people, and the desire to dominate over others and available material things; *achievement,* which is a measure of the personal success of the person; *hedonism* which is

the gratification of the senses; *stimulation,* which refers to things that challenge the person, provides excitement or newness, *self- direction*; *benevolence,* which is seeing to the welfare of the ones who are close; *universalism,* which is a concern for all people and the universe or nature, *tradition*, *conformity,* and *security.* Personal values have a great influence on the attitudes and behaviors of people (Schwartz, 2015) in the places they work (Koivula, 2008) and also at schools (Barni et al., 2018). The relationship between personal values of a teacher and self-efficacy of a teacher have been largely investigated.

High self-efficacy ensures continuous motivation. When individuals with high self-efficacy reach their goals, they tend to achieve more goals (Schunk, 1989). Self-efficacy greatly affects effort and commitment (Bandura & Cervone, 1983, 1986; Schunk, 1995). Individuals with high self-efficacy make more effort when faced with difficulty and become more dependent when challenged if they have the necessary skills. Increasing interest in the construct of self-efficacy can be seen over the last decade (Fackler et al., 2021; Holzberger &Prestele, 2021).Moreover, the findings from the Greenier et al. (2021) study observed a negative correlation between teacher self-efficacy and burnout. Meanwhile, teacher efficacy is significantly affected by their attitude toward their specific teaching context, teaching demands, and assessments of the available support and resources (Bandura, 1997; Tschannen-Moran &Hoy, 2001). According to Buric and Moe (2020), teachers' emotions affect the motivation, cognition, and behavior of themselves and their students. Though much work has been done on teacher's self-efficacy in various subjects, the self-efficacy for moral education has not been widely studied. Moral values are key components in a student's life and to teach moral values the teacher's self-efficacy for moral education plays a pivotal role. As Barni, Danioni &Benevene (2019) stated, self-efficacious teachers will establish effective results in their work. Teacher self-efficacy is required for all subjects, but if we are to better human value-oriented living, we must pay attention to teacher self-efficacy for moral education in educational institutions. To date, no studies focusing on the self-efficacy of teachers for moral education in India or elsewhere have been performed; however, the tool used to study this is available in the literature. The tool was adapted and validated to fit the needs of India better, to make it easy to use. The scale to measure self-efficacy for moral education was developed initially by Narvez et al. (2008) at the University of Notre Dame. This tool has not been used in the Indian context. This scale comprises two dimensions, personal teacher efficacy (PTE) and general teacher efficacy (GTE). Personal teacher efficacy consists of the teacher's belief in teaching moral values (Barni, 2019). General teacher efficacy is the teacher's belief regarding their ability to overcome social and economic factors in their students' lives (Sugiana,2015).

METHOD

The research was descriptive to gather information on self-efficacy for moral education from the teachers in middle schools. A survey was used to collect the information using a simple random sampling method. The study sample contained 400 moral education teachers from middle school (classes 6, 7, and 8) in the Haryana and Punjab states of India. Permission to administer the scale was taken from the Head of the Institution. The purpose of data collection was explained to the teachers who were requested to cooperate. It took approximately 15 to 20 minutes to complete the task and return the tool to the researcher.

Confirmatory factor analysis (CFA) was done using SPSS AMOS Ver 23.0. The scales construct validity was determined by evaluating the intactness of its factor structure (Williams, 1995). Only the CFA of all the subscales was conducted using the available data. Commonly reported goodness of fit estimates includes Chi-square value at 0.05 (Barett, 2007), *df,* and *p* values (Kline, 2004; Hayduk et al., 2007). These estimates are sensitive for small sample size studies (Anderson & Gerbing, 1984); hence CMIN/DF with a value less than 3.00 (Kline, 2004) was included. RMR (Root Mean Square Residual) and RMSEA (Root Mean Square Error of approximation) estimates are desired to be below 0.08 for a good fit model, and the absolute, comparative, and parsimonious estimates like GFI, TLI, CFI are desired to be above 0.90 (Leach et al., 2008).

INSTRUMENT

Teacher Self-Efficacy for Moral Education (TSEME) is a scale used to measure teacher self-efficacy for moral education (Narvaez et al., 2008). It contains 24 items divided into two dimensions, PTE and GTE. Personal teacher efficacy consists of the teacher's belief in teaching moral values (Barni, 2019). General teacher efficacy is the teachers' belief regarding their ability to overcome social and economic factors in their students' lives (Sugiana, 2015). Twelve items (1,3,5,7,9,11,12,14,18,19,23, and 24) in the scale are related to GTE, and twelve items (2,4,6,8,10,13,15,16,17,20,21, and 22) are related to PTE. The scale uses a five-point Likert rating from one (strongly disagree) to five (strongly agree).

RESULTS

The validity of the factor structure was found using CFA using SPSS AMOS Ver 23.0. Under the descriptive statistics, the measure of central tendency mean, the measure of dispersion standard deviation, and the measurements of asymmetry, skewness, and kurtosis are reported along with their respective standard error (Table 1).

TABLE 1
DESCRIPTIVE STATISTICS

Items	N Statistic	Mean Statistic	Std. Error	Std. Deviation Statistic	Skewness Statistic	Std. Error	Kurtosis Statistic	Std. Error
I1	400	4.475	0.029	0.183	-0.892	0.122	-0.449	0.243
I2	400	3.887	0.042	0.149	-0.819	0.122	-0.326	0.243
I3	400	4.422	0.032	0.144	-0.761	0.122	-1.086	0.243
I4	400	3.895	0.044	0.191	-0.705	0.122	-0.493	0.243
I5	400	4.042	0.033	0.168	-0.812	0.122	-0.980	0.243
I6	400	3.977	0.042	0.144	-0.811	0.122	-0.616	0.243
I7	400	4.255	0.032	0.052	-0.847	0.122	-1.102	0.243
I8	400	4.227	0.042	0.144	-0.834	0.122	-0.275	0.243
I9	400	3.872	0.046	0.098	-0.789	0.122	-0.759	0.243
I10	400	3.590	0.060	0.110	0.844	0.122	-0.976	0.243
I11	400	4.202	0.033	0.161	-0.874	0.122	-1.248	0.243
I12	400	4.100	0.031	0.121	-0.952	0.122	-0.825	0.243
I13	400	3.482	0.048	0.165	-0.841	0.122	-0.241	0.243
I14	400	4.140	0.036	0.122	-0.899	0.122	-1.050	0.243
I15	400	4.370	0.049	0.197	-0.790	0.122	-0.630	0.243
I16	400	3.627	0.051	0.122	0.828	0.122	-0.829	0.243
I17	400	3.837	0.045	0.098	-0.810	0.122	-0.872	0.243
I18	400	4.175	0.033	0.667	-0.775	0.122	-0.810	0.243
I19	400	4.340	0.030	0.612	-0.819	0.122	-0.799	0.243
I20	400	4.347	0.042	0.850	-0.784	0.122	-0.649	0.243
I21	400	3.537	0.046	0.933	-0.830	0.122	-0.363	0.243
I22	400	4.117	0.048	0.962	-0.764	0.122	0.008	0.243
I23	400	4.497	0.026	0.529	-0.701	0.122	-0.615	0.243
I24	400	4.330	0.032	0.649	-0.837	0.122	-0.624	0.243

For the TSEME scale, analysis was conducted, and the results are presented regarding reliability and goodness of fit indices.

TABLE 2
RELIABILITY STATISTICS OF THE TSEME SCALE

Cronbach's Alpha	No. of Items
0.87	24

According to Kyriazos et al. (2018) and Kline (1999), for psychological constructs, the internal consistency reliability estimate Cronbach alpha can be as low as 0.60. The obtained value of 0.87 exceeded the cut-off value of 0.60 (Table 2). It means that the scale was found to possess minimum internal consistency reliability.

CFA was conducted to further confirm the extracted factor structure and show construct validity (Table 3).

TABLE 3
FACTOR LOADINGS OF THE ITEMS OF TEACHER SELF EFFICACY FOR MORAL EDUCATION

Item No.	Standardized factor loading	Item No.	Standardized factor loading
1	0.65	13	0.50
2	0.57	14	0.71
3	0.70	15	0.42
4	0.47	16	0.47
5	0.72	17	0.61
6	0.77	18	0.66
7	0.85	19	0.87
8	0.64	20	0.43
9	0.34	21	0.71
10	0.59	22	0.33
11	0.71	23	0.81
12	0.66	24	0.85

The factor loadings of the retained items have magnitudes above 0.4, indicating good alliance with the parent factors (Table 3). The factor loading for items number nine and twenty-two is below 0.4. These items could be deleted from the questionnaire. The magnitude of these factor loadings ranges from average (0.33) to high (0.87), indicating the effectiveness of the items in measuring their respective dimension. The interrelationship is found to be strong.

TABLE 4
GOODNESS OF FIT ESTIMATION FOR FACTOR STRUCTURE VALIDATION

Estimand	CMin/DF	RMR	TLI	CFI	IFI	RMSEA
Benchmark	< 3.00	< 0.05	>0.90	> 0.90	> 0.90	<0.08
Estimate	1.58	0.16	0.97	0.97	0.89	0.07

Results presented in Table 4 show that the chi- square test is insignificant (*p*-value greater than 0.05). This is rarely the case as the CMIN/df value is less than three. The RMR value and the RMSEA value are desired at less than 0.05 and 0.08, but due to the small sample size, the value of RMR is above the desired value. The GFI, TLI, and CFI value are desired above 0.90, to display evidence of overall goodness of fit.

Based on the reliability tests, the scale was retained. The retention of these scales ispurely based on the obtained results, where most of the scales estimates are above the acceptable and desired benchmarks and reliability.

DISCUSSION

The teacher self-efficacy for moral education scale is a tool of foreign origin and is rarely used in research in the Indian context. It is used to measure teacher self-efficacy for moral education. However, it is difficult to find research studies that have established the validity of the factor structure of this TSEME scale in the Indian context. Such a study is relevant as part of legal discourse owing to the cultural difference (Yasir, 2016) between the original country and administration. The present study reported the goodness of fit estimates of the factor structure to have acceptable magnitudes satisfying their desired benchmarks.

The Cronbach's Alpha of the original scale was 0.88, and for the present study, it is 0.87.

TABLE 5
COMPARING THE VALUES OF CFA WITH ORIGINAL SCALE VALUES

Psychometric properties	Current values	Original scale Values
X2/ df	1.78	2
RMSEA	0.07	0.06
CFI	0.97	0.89
RMR	0.16	0.95
IFI	0.89	0.91
NFI	0.72	-
RFI	0.69	-
TLI	0.97	-
Reliability (Cronbach alpha)	0.87	0.88

The original teacher self-efficacy for moral education was developed and validated in Notre – Dame, France, in 2008. However, they are almost similar when we compare the current values to the original values. Therefore, we can say that the original scale could be used in the Indian context for testing the TSEME. The present study was performed in two states; therefore, the replication of the study could be done in other Indian states. The sample was only from teachers of moral education classes 6, 7, and 8. It could be broadened to include teachers of various age groups. The TSEME scale is useful in measuring the teacher's efficacy in teaching moral values. It could be used extensively by the administrators in selecting teachers to cultivate valuable and productive values in the students.

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