

## Development and Validation of Teachers' Attitude Scale in Teaching English Reading (TAS-TER)

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### Abstract

The main purpose of the present study was to develop and validate a scale to measure the attitude of English teachers towards teaching reading at early grade level called Teachers' Attitude Scale in Teaching English Reading (TAS-TER) with three sub-dimensions: Affective factor of attitude (AFA), Behaviourial Factor of Attitude (BFA) and Cognitive Factor of Attitude (CFA). The initial draft, comprising of Fifty-five (55) items, was pilot tested on 250 English teachers teaching grade II in Public sector schools in district Gujrat, Punjab, Pakistan. Exploratory factor analysis (EFA) was ensured through SPSS version-26, with factor loading less than 0.5 were deleted from the tool. Moreover, Confirmatory factor analysis (CFA) was also ensured to make the model fit, through AMOS software. Results of the test affirmed that the model is a valid and reliable; reduced to twenty-five (25) items with  $\alpha = 0.822$ , out of which nine (9) items retained for AFA with  $\alpha = 0.865$ , seven (7) items for the BFA with  $\alpha = 0.866$ , and nine (9) items retained for CFA with  $\alpha = 0.928$ . Thus, the results provided evidence to use the TAS-TER to identify and measure the teachers' attitude in teaching English reading skill at early grade level.

**Keywords:** *teachers' attitude; reading skill; affective factor of attitude (AFA), behavioural factor of attitude (BFA), cognitive factor of attitude (CFA)*

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## Introduction

Multiple tier of education exists in education system of Pakistan. These are Higher Education, Teacher Education, Secondary Education, Primary Education, Literacy and Non-Formal Basic Education, Islamic Education and Early Childhood Care and Education (Ali, S. 2017).

Early Childhood Care and Education, a recently emerged concept, in Education System of Pakistan. ECCE continued from playgroup to grade three (Mumtaz, 2011). Different literacy and numeracy skills taught during ECCE period. Among four communication skills of a language, reading is a fundamental skill. It provides a platform for learner in learning concepts that are more complex.

Moreover, a competent teacher is required to develop and nourish reading skills. One of the main outcomes of the research is that the qualifications of teachers that provide care for children is one of the most influential determinants on the quality of child-care centers (Barnett, 2003; Brownlee & Berthelsen, 2006). Furthermore, it is evident that teachers are the most important contributors in terms of making the early childhood education more effective (Fenech, Sweller, & Harrison, 2010; Ho, Campbell-Barr & Leeson, 2010; Moss & Dahlberg, 2008).

Literature supports that a teacher with positive attitude towards teaching affect positively towards students learning (Ulug, Ozden, & Eryilmaz, 2011; Mensah, Okyere, & Kuranchie, 2013). According to Hooks et al. (2006) teachers' attitudes, affect their planning, decision making and their classroom practices.

It is worthwhile to explore teachers' attitude towards teaching (Ramzan, Saleem, Islam, & Afzal, 2014). Many research studies concluded that attitude is another factor that ECE teachers' have towards their profession because a responsive, patient and knowledgeable personality is very important to support the positive development of children in all areas (La Paro, Siewpak & Scott-Little, 2009; Hamre, 2011; Hooks, Scott-Little, Marshall, & Brown, 2006; Hussain, Ali, Khan, Ramzan & Qadeer, 2011). Teachers' attitudes are important because their implementation and interpretation of curricula influenced by their knowledge and their attitudes (Dockett & Perry, 2006). He also claimed that, attitudes are important clues that give information about classroom practices. By understanding teachers' attitudes, their thinking and practices may be improved.

Weiner (2003) stated attitude as characteristic as the surge of convictions, mental state, and exercises that guides an individual to live as needs be. Word Attitude has been taken from the Latin word "*aptus*" that

signifies "availability and comfort for activity" (Hogg & Vaughan, 2010 cited in Song, Wu, & Li, 2012). As indicated by Goodlad (1990), the quality of a syllabus or curriculum is not a viable replacement for the quality of the school personnel.

The teacher's adoration for his/her subject effect on their students and his/her commitment to the process urges a learner's advancement in learning. Babu & Raju (2013) defined teachers' attitude as one's mental state of feelings strengthened by their actions, etiquettes and devotion towards teaching. Ishaque (2015) reported different research studies focusing on the worth of teachers' attitude towards teaching. Numerous studies on teachers' attitude uncover that teachers' attitude influence the students in molding their attitudes (Duman, 2002). Researchers prove that teachers' positive attitude contribute in enhancing students' performance and their success rate (Ulug, Ozden, & Eryilmaz, 2011). Teachers' attitude investigated through different research studies showed significant contribution in shaping students' attitude (Duman, 2002). Ataunal (2003) clarified that when an instructor communicates with their students either having positive or negative attitude affect decidedly or contrarily in molding the existences of his students. Butts & Lundy, (2003) stated that Teachers' attitude is a changing agent and has a huge part in applying present day thoughts and new procedures in classroom guidelines. Attitude of a teacher not only inspires one's to teach students with interest, determination and passion but also contribute positively in teaching-learning process (Scott-Little, 2009). Resultantly, teaching-learning process improves, and the performance of the students increases. Moreover, learner's development in personality and performance influenced positively by teachers' positive attitude and it affected negatively on their performance and personality by the negative attitude of teachers (Ulug, et al, 2011).

Measuring attitude has always been challenging (Cano, 2018; Schraw & Impara, 2000) and controversial due to the lack of its generalizability, its complexity, its unavailability to direct assessment, and its confounded existence in terms of verbal skill and working memory capability (Veenman, 2005; Pintrich, Wolters & Baxter, 2000).

Current measures tend to be limited in scope and well away from the teaching-learning framework for schools (La Marca, 2014). Measurement of attitude on the Likert scale is valid (Cano, 2018; Cooper & Sandi-Urena, 2009) but the quality and standard of the scale in terms of validity, reliability, and other characteristics is generally overlooked due to the absence of the consistent and systematic process of the scale development.

Many researchers measured attitude with different tools. However, a questionnaire is a tool in practice to measure the level of attitude (Balcikanli, 2011). Hashmi, Khalid & Shoaib, 2019; Pedone et al., 2017) used a scale to measure the attitude.

Major Variable of the study was Teachers' Attitude towards Teaching Reading English to early graders so to explore teachers' attitude towards teaching reading among early graders a standardized attitude scale was need for this study. Hence, the main objective of the study was to develop and validate Teachers' Attitude Scale towards Teaching English Reading (TAS-TER) for Teachers teaching English to early graders. The researchers developed an instrument to quantify the English teachers' attitude in teaching reading, after the review of related literature. The instrument used in this study is a 5-point Likert scale. This instrument was named as the teachers' attitude Scale towards teaching English reading (TAS-TER) and was used to measure the attitude of English teachers teaching to early graders.

The instrument referred to as the teacher's attitude Scale in teaching English Reading (TAS-TER) may be beneficial to use it by the teachers teaching English to assess their attitude regarding English Reading. Future researcher may use it as a scale for other relevant survey studies.

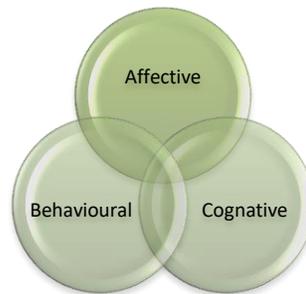
## **Literature Review**

Attitude is an essential concept in social psychology (Allport, 1935, as cited in Stedman, (2002). The attitude is indispensable to the psychology of personality (Kim, et al. 2021). Furthermore, Fishbein describes the concept of attitude as vital and significant in every behavioural science (Utama, Syukri, & Risnita, 2021). A wide range of definitions related to attitude existed in literature. Jung (1971) stated the attitude as a readiness to act or react in a certain way in psyche board. From his perspective, attitudes can be observed in sets or in pairs i.e. conscious and unconscious. Consequently, an individuals' style to respond or react the circumstances and environment is called his attitude. Nevertheless, Ajzen & Fishbein (1975) claimed that the sentimental or evaluative domain discriminates against other attitude concepts. Additionally, they specified that the affective domain of attitude is an indispensable aspect of attitude. They also describe that many instruments and tools designed to measure the attitude, were only designed to measure one aspect of attitude. Its purpose was just general evaluation of feelings of favourableness or unfavourableness towards any item or object. They stated that attitude is inferred from behavior. Attitude cannot be observed directly.

Dawes (1984) was credited with revolutionizing the notion of measuring attitude when he described a procedure for attitude measurement in 1928 in the American Journal of Sociology. Although there is not universal consensus on the definition of attitude, Dawes (1972) explained that agreement among social psychologists on the definition of attitude is not essential for them to measure attitudes. In contrast to this perspective, Fishbein & Ajzen (1975) posited that a clear definition is necessary because it aids in the formation of valid procedures of measurement. Baron & Byrne (1984) explain attitudes as moderately lasting clusters of beliefs, feelings and performance propensities directed towards the specific object, idea, group or person.

Ishaque (2015) described two perspectives on attitude structure have subjected research on the content of attitudes. These two models are *three-component model* and *Expectancy value model*. These two models explain the way through which attitudes related with beliefs, feelings and behavior. Moreover, Ishaque (2015) addressed two models that explain the dimensionality of the attitude. What is the dimension of attitudes towards some object, idea, person or situation, the answer is provided through these two models. These two models are *Uni-dimensional model* and *Bi-dimensional model*.

Conventionally attitude was abstracted as it consists of three components: a cognitive, affective and behavioral component (Triandis, 1971). Among many model of attitude ABC Model of attitude was selected for the development of tool. According to Robbins et al., (2011), attitude has three components that are demonstrated by the researcher in the following figure:



*Figure 1:*  
ABC Model

A proposed tri-domain model (Three-Dimension) model of attitude is based on the various combinations of Affect (Feeling), Behavior (Dealing

and actions), and Cognitive (knowledge and belief). Cognitive component of attitude refers to the justification of beliefs in such a way that things exist in reality (Robbins et al., 2011). Cognitive component of the attitude deals with the mental and neural process of a person. Knowledge, concepts, and ideas are discussed in cognition. This component is the readiness to respond some situation, person or object that is resulting in some organized experiences.

Affect is the emotional or feeling section of an attitude (Robbins et al., 2011). When an individual who has associated his feelings positively to an attitude object, it is said that individual likes the attitude. On the other hand, if an individual has associated negative feelings with the same attitude object that would be called disliking the object (Trivedi, 2007).

An intention to behave in a certain way towards attitude object is the theme of behavioral component of attitude (Robbins et al., 2011).

In teaching attitude model three components of attitude are essential and must be taken into consideration. the construct of overall attitude developed when these three components join together. It is also apparent that these three components individually can be either positive or negative.

## **Methodology**

A literature review was carried out to align the construct definition with previous related studies and concepts. Moreover, factors and items related to the factors were identified needed to adapt or adopt. and to identify factors and the items that might be adapted. Interviews/discussions were carried out with focus groups to get in-depth insight that how they define, understand and theorize the construct. Later on literature reviewed conducted and the interviews/discussion were aligned to ensure the conceptual sense of the construct. This exercise helped in finalizing three factors of Teachers' attitude i.e., affective factor of attitude (AFA), Behavioural Factor of attitude (BFA) and cognitive factor of attitude. Thus, the initial draft of the scale was developed with three (3) factors and fifty-five (55) items on five points Likert Scale, i.e., strongly agree, agree, neutral, disagree and strongly disagree. The instrument named as the Teachers' Attitude Scale in Teaching English Reading (TAS-TER). The values of scale were adjusted on 1 for strongly disagree, 2 for disagree, 3 for neutral, 4 for agree, and 5 for strongly agree. Affective factor of attitude (AFA) consisted of nineteen (19) items, Behavioural factor of attitude (BFA) consisted of twenty (20) items and cognitive factor of attitude (CFA) consisted of sixteen (16) items. The items of the scale were stated to make them easy and understandable for the respondents of the study (i.e. English Teachers of grade II).

### **Validation of Teachers' Attitude Scale in Teaching English Reading (TAS-TER)**

Validity refers to the suitability, meaningfulness, accuracy, and effectiveness of the tool; the use of experts for systematic review improves its overall quality and representativeness (Polit & Beck 2006; Aulia, Sukirlan & Sudirman, 2014). They were requested to review each item of the scale, and, provide their opinion/level of agreement for each of the statements/ each item about the appropriateness, clarity, comprehensibility, plausibility, the suitability of the language, linkage, and relevancy of the items with the construct, and the item usability for the survey research.

Therefore, the initial draft was discussed with the subject matter experts. They were requested to review each item of the scale, and, provide their opinion/level of agreement for each of the statements/ each item about the appropriateness, clarity, comprehensibility, plausibility, the suitability of the language, linkage, and relevancy of the items with the construct, and the item usability for the survey research. Moreover, the proposed draft was restructured and improved after detailed discussion/dialogue sessions held with the experts. By adopting the process of expert validation, the initial draft was amended (Waltz, Strickland & Lenz, 2010) after seeking expert opinion on all the factors and items of the scale. This initial draft was sent to different educationists and psychologists (experts) working at different national and international universities within Pakistan and abroad. They were requested to give their suggestions as well as judgment on the suitability of the language for English teachers of grade II; the linkage between factors and individual items; appropriateness of the factors and individual items; clarity of items, and plausibility of the items.

The draft, in a hard form, was distributed among faculty members of three departments (i.e., Department of Education and Psychology, University of Gujrat and institute of Education and research (IER) Lahore, Pakistan, Punjab University and Department of English language teaching (ELT) Punjab University.

## Content Validity of Teachers' Attitude in Teaching English reading (TAS-TER)

The Content Validity Ratio (CVR) for each item and overall Content Validity Index (CVI) of the Scale was calculated to improve the quality and ensure the Scales' validity. Total Eight items excluded in this process. One item of Affective factor of attitude were dropped i.e. (item #5), one item of Behavioural factor (item#4) and one item of Cognitive factor (item #16) were excluded/deleted as CVR values of these items were below 0.57. The Content Validity Ratio (CVR) of retained items of the Scale ranged from 0.858 to 1.000, whereas the overall Content Validity Index (CVI) of the Scale remained as 0.899 for fourteen (14) experts; CVR value more than 0.51 is considered acceptable (Lawshe, 1969).

Table 1: Content Validity Ratios (CVR) of the items and Content Validity Index (CVI) of the initial Teachers' attitude Scale in Teaching English Reading (TAS-TER)

Table 1  
*Content Validity Ratios (CVR) of TAS-TER s' Items*

Affective factor of Attitude			Behavioural factor of Attitude			Cognitive factor of Attitude		
Item No.	CVR	Decision	Item No.	CVR	Decision	Item No.	CVR	Decision
Item1	1	Retained	Item1	0.86	Retained	Item1	0.86	Retained
Item2	1	Retained	Item2	0.86	Retained	Item2	1	Retained
Item3	0.86	Retained	Item3	1	Retained	Item3	0.86	Retained
Item4	0.86	Retained	Item4	-0.3	Dropped	Item4	0.86	Retained
Item5	0.29	Dropped	Item5	0.86	Retained	Item5	0.86	Retained
Item6	0.86	Retained	Item6	1	Retained	Item6	0.86	Retained
Item7	0.86	Retained	Item7	0.86	Retained	Item7	1	Retained
Item8	0.86	Retained	Item8	0.86	Retained	Item8	1	Retained
Item9	1	Retained	Item9	1	Retained	Item9	0.86	Retained
Item10	0.86	Retained	Item10	0.86	Retained	Item10	0.86	Retained
Item11	0.86	Retained	Item11	0.86	Retained	Item11	1	Retained
Item12	1	Retained	Item12	0.86	Retained	Item12	0.86	Retained
Item13	1	Retained	Item13	1	Retained	Item13	0.86	Retained
Item14	0.86	Retained	Item14	1	Retained	Item14	0.86	Retained
			Item15	1	Retained	Item15	0.86	Retained
			Item16	0.86	Retained	Item16	-0.8	Dropped
			Item17	0.86	Retained			

## **Pilot Testing of Teachers' Attitude Scale in Teaching English Reading (TAS-TER)**

The sample size equivalent to 10-15 participants per item is essential for factor analysis (Costello & Osborne, 2005). Teachers' attitude Scale in teaching English Reading (TAS-TER) was pilot tested on 550 English teachers of grade II, working in Public and private institution of Punjab, Pakistan. Construct and discriminant validity of the scale was ensured through factor analysis. Both exploratory and confirmatory factor analysis was conducted to ensure the validity of Teachers' Attitude Scale in Teaching English Reading (TAS-TER)

### **Results**

#### **Exploratory Factor Analysis (EFA)**

The Exploratory Factor Analysis (EFA) is used to investigate the relative factor structure of the observed variables without placing a pre-existing structure (Ramakrishnan and Arokiasamy, 2019). This Exploratory factor analysis (EFA) was ensured for two times through SPSS version 26 using Principal Component Analysis Extraction Method and Varimax with Kaiser Normalization Rotation Method. Factors loading of the items for Teachers' Attitude Scale – Teaching English Reading (TAS-TER) is reported in Table 3.5. Factor loadings of 0.50 or higher are expressed in this table. The criterion for an item to be retained is described by Henson and Roberts (2006). According to these criteria, the only items in an instrument are retained whose factor loading is at least 0.50 on its own scale and less than 0.50 on all other scales. The application of this criterion led to the removal of some items of the Teachers' Attitude Scale – Teaching English Reading (TAS-TER). One item AFA13 from affective factor of attitude, 4 items BFA2, BFA6, BFA7, BFA13 from Behavioural factor of attitude, CFA5, CFA9 and CFA14 (3 items) of Cognitive Factor of attitude were excluded from the Scale. The mentioned items had loadings of less than 0.50 on the factors and were omitted from subsequent analyses. The table 3.6 shows that the percentage of variance was 32.762 % for Cognitive factor of attitude, 20.688 % for behavioral factor of attitude, and 15.581% for affective factor of attitude. Similarly, the Eigen values for the three factors of Teachers' Attitude Scale – Teaching English Reading (TAS-TER) ranged from 15.398 to 7.323.

Table 2  
*Factors Loading, Eigen Values and Percentage of Variance Explained of TAS-TER*

<b>Cognitive Factor of Attitude</b>		<b>Behavioural Factor of Attitude</b>		<b>Affective Factor of Attitude</b>	
Item No.	Factor Loading	Item No.	Factor Loading	Item No.	Factor Loading
CFA6	.959	BFA1	.953	AFA11	.945
CFA10	.935	BFA9	.943	AFA10	.924
CFA4	.872	BFA11	.927	AFA8	.869
CFA11	.853	BFA16	.926	AFA3	.864
CFA3	.846	BFA8	.913	AFA14	.853
CFA15	.797	BFA5	.906	AFA7	.802
CFA12	.794	BFA3	.900	AFA1	.796
CFA7	.718	BFA17	.899	AFA6	.790
CFA13	.711	BFA12	.886	AFA4	.753
CFA2	.699	BFA15	.713	AFA2	.739
CFA1	.634	BFA10	.670	AFA9	.621
CFA8	.598	BFA14	.638	AFA12	.609
Eigen Values	15.398		9.723		7.323
% Variance Explained	32.762		20.688		15.581

### Model fit of Confirmatory Factor Analysis (CFA)

A statistical approach used to validate the scale's factor structure is called Confirmatory Factor Analysis (CFA). It helps to determine the probability of the correlation between the variables observed and their Latent constructs (Ramakrishnan and Arokiasamy, 2019).

Different indices be used to make the model fit. To determine the Model fit, the researcher used the following statistics: Comparative fit index (CFI), CMIN (Chi-Square Goodness of Fit), Adjusted Goodness of Fit Index (AGFI), the Tucker-Lewis Index (TLI), the Root Mean Square Error of Approximation (RMSEA) and the Standardized Regression Weights. General standards hold that the minimum standards of a good fit for these metrics are:  $GFI \geq .90$ ,  $AGFI \geq .90$ ,  $CFI > .90$  and closed to 1,  $TLI \geq .90$ ,  $RMSEA \leq .08$  is accepted; however, less than 0.05 is good,  $SRMR \leq .08$ . Thus, Confirmatory Factor Analysis (CFA) was run through AMOS software, and the values were calculated accordingly.

Table 3  
*Criterion values for Confirmatory Factor Analysis*

Indicators consistency	Value	Function value on the quality of conformity
CMIN/df	3.396	Less than 3
GFI	0.599	0.8 acceptable and Greater than 0.9 goof fit
AGFI	0.556	0.8 acceptable and Greater than 0.9 goof fit
TLI (rho2)	0.804	Greater than 0.9
RMSEA	0.127	Less than 0.05 Good fit

The table indicates that the value of CMIN/DF ratio was above 3, i.e., 3.396, and did not meet the criterion of Model Fit. GFI value 0.599 and AGFI value was examined as 0.556, which were found below the criterion value, i.e., .09. Therefore, it was needed to revisit the covariance matrix between variables. TLI value was observed as 0.804, which was found below the criterion value, i.e., .09. This value did not meet the criterion of Model Fit. Therefore, it was needed to revisit the covariance matrix between variables. Similarly, the RMSEA value was observed as 0.127, the value of  $RMSEA \leq .08$  makes the model a "reasonable fit"; however, less than 0.05 is a "close fit" (Xia and Yang, 2019). This value 0.127 did not meet the criterion of Model Fit. These values did not meet the criterion of Model Fit. The standardized regression weights against each item were computed and reported in the table 4.

Table 4  
*Standardized Regression Weights of Items of TAS-TER*

Affective Factor of Attitude		Behavioural Factor of Attitude		Cognitive Factor of Attitude	
Item No.	Stand. Reg.W.	Item No.	Stand. Reg.W.	Item No.	Stand. Reg.W.
AFA1	.766	BFA1	.883	CFA1	.563
AFA2	.882	BFA3	.404	CFA2	.664
AFA3	.855	BFA5	.248	CFA3	.850
AFA4	.416	BFA8	.496	CFA4	.917
AFA6	.750	BFA9	.389	CFA6	.901
AFA7	.348	BFA10	.483	CFA7	.698
AFA8	.848	BFA11	.994	CFA8	.776
AFA9	.963	BFA12	.928	CFA10	.494
AFA10	.936	BFA15	.794	CFA11	.499
AFA11	.464	BFA14	.821	CFA12	.749
AFA12	.979	BFA16	.794	CFA13	.703
AFA14	.793	BFA17	.992	CFA15	.491

Since the values of AGFI and TLI were below the criterion value, i.e., .09, therefore, it was needed to revisit the covariance matrix between variables. In order to improve model, fit items with the lowest Standardized Regression Weight may be deleted from the scale. Therefore, item numbered CFA4, CFA5, CFA6, CFA10 and CFA11 were excluded from the scale to make the model fit.

Confirmatory factor analysis (CFA) was once again run through AMOS software. Summary of model fit indices before and after modification of TAS-TER have been reported in table 5.

Table 5  
*Teachers' Attitude Scale in Teaching English Reading (TAS-TER) Before and After Modification*

Indicators consistency	index value before modification	index value after modification	Function value on the quality of conformity
CMIN/df	3.396	1.337	Less than 3
GFI	0.599	0.836	0.8 acceptable and Greater than 0.9 good fit
AGFI	0.556	0.808	0.8 acceptable and Greater than 0.9 good fit
TLI (rho2)	0.804	.967	Greater than 0.9
RMSEA	0.127	.048	Less than 0.05 Good fit

The table indicates the values of the modified model. The value of CMIN/DF ratio was below 3, i.e., 1.33, and met the criterion of Model Fit. AGFI value was examined as 0.836, which was found acceptable. This

value of the modified model meets the criterion of Model Fit. TLI value was observed as 0.967, which was found greater than the criterion value, i.e. .09. Now, this value meets the criterion of Model Fit. Similarly, the RMSEA value was observed as 0.048, which is less than 0.05. The value of RMSEA less than 0.05 indicates “Good fit” (Xia and Yang, 2019). Similarly, the standardized regression weights against each item were computed, and the values were observed as improved.

Table 6  
Standardized Regression Weights of Items of TAS-TER

Affective Factor of Attitude		Behavioural Factor of Attitude		Cognitive Factor of Attitude	
Item No.	Stand. Reg.W.	Item No.	Stand. Reg.W.	Item No.	Stand. Reg.W.
AFA1	.765	BFA1	.873	CFA1	.575
AFA2	.875	BFA11	.998	CFA2	.677
AFA3	.855	BFA12	.928	CFA3	.854
AFA6	.748	BFA14	.784	CFA4	.922
AFA8	.847	BFA15	.787	CFA6	.993
AFA9	.979	BFA16	.594	CFA7	.710
AFA10	.935	BFA17	.991	CFA8	.771
AFA12	.956			CFA12	.758
AFA14	.790			CFA13	.704

All standardized regression weights reported in the table 6 met the stated criteria i.e. above.05.

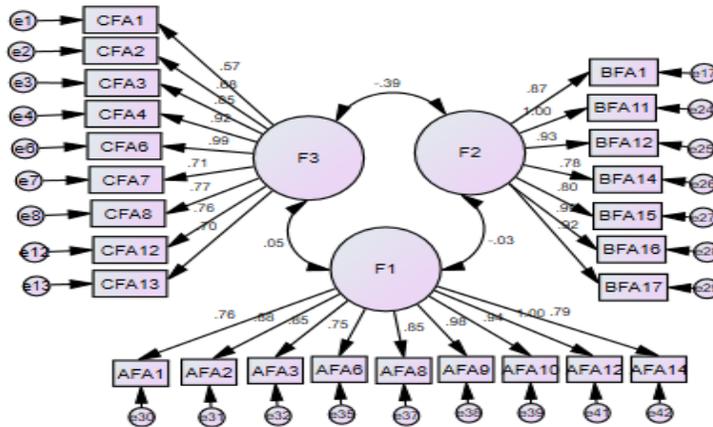


Figure-2  
Factor Structure of Teachers' Attitude Scale in Teaching English Reading (TAS-TER)  
All the above-mentioned statistics affirm that the model is fit.

### Measuring the reliability of Assessing Teachers' Attitude Scale in Teaching English Reading (TAS-TER)

The pictorial illustration of the Confirmatory Factor analysis of Teachers' Attitude Scale in Teaching English Reading (TAS-TER) was also affirmed, which is being represented below.

Pictorial representation describes that items of teachers' attitude were loaded in three sub-factors called CFA, BFA, and AFA. Nine (9) items were loaded against CFA, and seven (7) items against BFA and nine (9) items were loaded against AFA.

Table 7

*Reliability Values of Teachers' Attitude Scale in Teaching English Reading (TAS-TER)*

Scale	Number of Statements	Mean	SD	Reliability Coefficient
Affective Factor of Attitude (AFA)	9	29.60	8.681	0.865
Behavioural factor of Attitude (BFA)	7	24.39	10.295	0.866
Cognitive Factor of Attitude (CFA)	9	35.87	6.356	0.928
Teachers' Attitude Scale in Teaching English Reading (TAS-TER)	25	89.87	13.071	0.822

The results of the test affirmed that the model is valid and reliable. It was reduced to twenty-five (25) items with  $\alpha = 0.822$ , out of which nine (9) items retained for the Affective factor of attitude (AFA) with  $\alpha = 0.865$ , seven (7) items for the Behavioural factor of attitude (BFA) with  $\alpha = 0.866$ , and nine (9) items retained for the Cognitive factor of attitude (CFA) with  $\alpha = 0.928$ . These results provided evidence that the Teachers' Attitude Scale in Teaching English Reading (TAS-TER) measures the level of attitude in teaching English reading.

The present results were also consistent with the conclusions of the authors of the original version in that the three-factor structure of Teachers' Attitude Scale in Teaching English Reading (TAS-TER) found sufficient support in Confirmatory Factor analysis. Internal consistencies of all the sub-factors and over all of the scale reflected reasonable results. The internal consistency of the scale was 0.822, which is considered a reliable measure (Monticone, et.al. 2012). All factors of attitude showed adequate reliability. Teachers' Attitude Scale in Teaching English Reading (TAS-TER) has sufficient evidence to be a valid and reliable instrument to measure teachers' attitude in teaching English reading skill.

## **Discussion**

Measurement of teachers' attitude remains a focused area of research for the researchers working in the field of education. Early Childhood Care Education (ECCE) being a new area of Education, it is the least focused area by the researchers. The primary purpose of the study was to develop and validate a scale measuring teachers' attitude in teaching English Reading to early graders. The current research study provides the evidence for the reliability and validity of the teachers' attitude scale in teaching English Reading (TAS-TER) for English teachers teaching to Grade II.

Precisely TAS-TER assesses three subscales of teaching English Reading attitude. These subscales are Affective factor of Attitude, Behavioral factor of Attitude, and Cognitive factor of Attitude.

Initially fifty-five items were developed for the scale. Six items were excluded from the scale after ensuring content validity. After this exploratory factor analysis was conducted to check the factor structure of items of the scale. Purpose of factor analysis was to ensure the convergent and discriminant validity of the scale. Consequently, a scale comprising of 25 items were obtained.

The present results were also consistent with the conclusions of the authors of the original version in that three-factor structure of teachers' attitude scale in teaching English Reading (TAS-TER) found sufficient support in Confirmatory Factor Analysis.

Internal consistencies of all the sub-factors and over all of the Scale reflected reasonable results. Internal consistency of the scale was 0.822. It is considered as a reliable measure (Monticone et. al., 2012). All factors showed adequate reliability. The teachers' attitude Scale in teaching English Reading (TAS-TER) has sufficient evidence to be a valid and reliable instrument to measure Teachers' attitude in teaching English reading. (Final TAS-TER Attached in annexure 1)

Many research studies have been conducted on students, reading attitude. Assessing teachers' Attitude towards teaching English Reading is the least focused area in the field of Early childhood Care Education. However, little evidence is found on teachers' attitude Scale in teaching reading. TAS-TER will be beneficial for both researcher and practitioners to use in their respective professional life. It not only will prove its effectiveness in assessing practicing teachers' attitude towards teaching, but it also remained beneficial for the researcher to assess its usability. Moreover, psychometric researcher may use it to revalidate across different settings and cultures. Researcher may use it to develop new instrument about teachers' attitude towards teaching reading.

## References

- Ajzen, I., & Fishbein, M. (1975). A Bayesian analysis of attribution processes. *Psychological Bulletin*, 82(2), 261.
- Ali, S. (2017). The sphere of authority: Governing education policy in Pakistan amidst global pressures. *Globalisation, Societies and Education*, 15(2), 217–237.
- A. Ataunal, (2003) Why and what kind of a teacher? *Milli Egitim Vakfi Yayinlari* No. 4, Ankara.
- Aulia, I. F., Sukirlan, M., & Sudirman, S. (2014). Analysis of the Quality of Teacher-made Reading Comprehension Test Items Using Item. *Unila Journal of English Teaching*, 3(4).
- Babu, B. P., & Raju, T. J. M. S. (2013). Attitude of student teachers towards their profession. *International Journal of Social Science and Interdisciplinary Research*, 2(1), 1–6.
- Balcikanli, C. (2011). Metacognitive Awareness Inventory for Teachers (MAIT). *Electronic Journal of Research in Educational Psychology*, 9, 1309–1332.
- Barnett, W. (2003). Better Teachers, Better Preschools: Student Achievement Linked to Teacher Qualifications. *NIEER Preschool Policy Matters*, Issue 2.
- Baron, R. A., & Byrne, D. E. (1984). *Social psychology: Understanding human interaction*. Allyn and Bacon.
- Brownlee, J., & Berthelsen, D. (2006). Personal epistemology and relational pedagogy in early childhood teacher education programs. *Early Years: An International Journal of Research and Development*, 26(1), 17–29.
- Butts, J. B., & Lundy, K. S. (2003). Teaching philosophy of science in nursing doctoral education. *Journal of Nursing Scholarship*, 35(1), 87–91.
- Cano, M. F. C. (2018). Active methodology like Problem Based Learning (PBL) and cases solutions? Do the students develop Attitude skills? In *7 th International Research Symposium on PBL* (p. 491)

- Cooper, M. M., & Sandi-Urena, S. (2009). Design and validation of an instrument to assess Attitude skillfulness in chemistry problem solving. *Journal of Chemical Education*, 86(2), 240
- Dawes, R. M. (1972). *Fundamentals of attitude measurement*. New York: John Wiley & Sons.
- DAWES, R. M. (1984). Approaches to the measurement of attitude. *Report No Pun Date Contract Note Available from*, 82.
- Dockett, S., Mason, T., & Perry, B. (2006). Successful transition to school for Australian Aboriginal children. *Childhood Education*, 82(3), 139-144.
- Duman, R. S. (2002). Synaptic plasticity and mood disorders. *Molecular psychiatry*, 7(1), S29-S34.
- Fenech, M., Sweller, N., & Harrison, L. (2010). Identifying high-quality center-based childcare using quantitative data-sets: What the numbers do and don't tell us. *International Journal of Early Years Education*. 18(4), 283-296
- Goodlad, J. I. (1990). *Teachers for our nation's schools*. Jossey-Bass Inc., Publishers, 350 Sansome St., San Francisco, CA 94104.
- Hamre, K. (2011). Metabolism, interactions, requirements and functions of vitamin E in fish. *Aquaculture nutrition*, 17(1), 98-115.
- Hashmi, A., Khalid, M., & Shoaib, A. (2019). A Cross-Sectional Study of Assessing Attitude Knowledge and Attitude Regulatory Skills among Prospective Teachers and Its Relation to their Academic Achievement. *Bulletin of Education and Research*, 41(2), 215-234.
- Henson, R. K., & Roberts, J. K. (2006). Use of exploratory factor analysis in published research: Common errors and some comment on improved practice. *Educational and Psychological Measurement*, 66(3), 393-416.
- Ho, D., Campbell-Barr, V., & Leeson, C., (2010). Quality improvements in early years settings in Hong Kong and England. *International Journal of Early Years Education*. 18(3) 243-258
- Hooks, B. (2006). *Outlaw culture: Resisting representations*. Routledge.
- Hooks, L. M., Scott-Little, C., Marshall, B. J., & Brown, G. (2006). Accountability for quality: One state's experience in improving practice. *Early Childhood Education Journal*, 33(6), 399-403.

- Hussain, S., Ali, R., Khan, M. S., Ramzan, M., & Qadeer, M. Z. (2011). attitude of secondary school teachers towards teaching profession. *International Journal of academic research*, 3(1).
- Ishaque, M. (2015). Exploration of Professional Attitude of Teachers Shifted from other Professions. *Unpublished M. Phil Thesis, Department of Education, University of Gujrat, Pakistan.*
- Jung, C. G., Campbell, J., & Hull, R. F. C. (1971). *The portable jung* (p. 659). New York: Penguin Books.
- Kim, M. J., & Hall, C. M. (2021). Do value-attitude-behavior and personality affect sustainability crowdfunding initiatives? *Journal of Environmental Management*, 280, 111827.
- La Marca, A. (2014). The development of a scale on metacognition for students in secondary school. In *EDULEARN 14 6th International conference on Education and new learning technologies* (pp. 676-691). IATED.
- La Paro, K. M., Siepak, K., & Scott-Little, C. (2009). Assessing beliefs of preservice early childhood education teachers using Q-sort methodology. *Journal of Early Childhood Teacher Education*, 30(1), 22–36.
- Lawshe, C. H. (1969). *Statistical theory and practice in applied psychology*. *Personnel Psychology* 22 (2).
- Mensah, J. K., Okyere, M., & Kuranchie, A. (2013). Student attitude towards mathematics and performance: Does the teacher attitude matter. *Journal of Education and Practice*, 4(3), 132–139.
- Monticone, S., Hattangady, N. G., Nishimoto, K., Mantero, F., Rubin, B., Cicala, M. V., & Rainey, W. E. (2012). Effect of KCNJ5 mutations on gene expression in aldosterone-producing adenomas and adrenocortical cells. *The Journal of Clinical Endocrinology and Metabolism*, 97(8), E1567-E1572.
- Moss, P., & Dahlberg, G. (2008). Beyond quality in early childhood education and care: Languages of evaluation. *New Zealand Journal of Teachers' Work*, 5(1), 3–12.
- Mumtaz, H., & Theophilopoulou, A. (2017). The impact of monetary policy on inequality in the UK. An empirical analysis. *European Economic Review*, 98, 410–423.

- Pedone, R., Semerari, A., Riccardi, I., Procacci, M., Nicolò, G., & Carcione, A. (2017). Development of a self-report measure of metacognition: The Metacognition Self-Assessment Scale (MSAS). *Instrument description and factor structure. Clinical Neuropsychiatry, 14*(3).
- Pintrich, P. R., Wolters, C. A., & Baxter, G. P. (2000). Assessing metacognition and self-regulated learning. In G. Schraw and J. C. Impara (Eds.), *Issues in the measurement of metacognition* (pp. 43–97). Lincoln, NE: Buros Institute of Mental.
- Polit, D. F., & Beck, C. T. (2006). The content validity index: are you sure you know what's being reported? Critique and recommendations. *Research in Nursing and Health, 29*(5), 489–497.
- Ramakrishnan, S., & Arokiasamy, L. (2019). Flexible Working Arrangements in Malaysia; a Study of Employee's Performance on White Collar Employees. *Global Business and Management Research, 11*(1), 551–559.
- Ramzan, M., Saleem, K., Islam, M. U., & Afzal, M. (2014). Development and Validation of Prospective Teachers' Teaching Attitude Scale (PTTAS). *Journal of South Asian Development 3*(4), 6–14.
- Robbins, A. M., Stoinski, T., Fawcett, K., & Robbins, M. M. (2011). Lifetime reproductive success of female mountain gorillas. *American Journal of Physical Anthropology, 146*(4), 582-593.
- Schraw, G. (2000). 7. Assessing Metacognition: Implications of The Buros Symposium. *Lincoln, NE: Buros Institute of Mental Measurements, Issues in the Measurement of Metacognition*, ed..
- Scott-Little, C. (2009). Assessing beliefs of preservice early childhood education teachers using Q-sort methodology. *Journal of Early Childhood Teacher Education, 30*(1), 22–36.
- Song, G., Ma, Q., Wu, F., & Li, L. (2012). The psychological explanation of conformity. *Social Behavior and Personality: An International Journal, 40*(8), 1365–1372.
- Stedman, R. C. (2002). Toward a social psychology of place: Predicting behavior from place-based cognitions, attitude, and identity. *Environment and Behavior, 34*(5), 561–581.

- Triandis, H. C. (1971). *Attitude and Attitude Change*. Wiley Foundations of Social Psychology Series.
- Trivedi, P. K., & Zimmer, D. M. (2007). *Copula Modeling: An Introduction for Practitioners*. Now Publishers Inc.
- Ulug, M., Ozden, M. S., & Eryilmaz, A. (2011). The effects of teachers' attitudes on students' personality and performance. *Procedia-Social and Behavioral Sciences*, 30, 738–742.
- Utama, E. P., Syukri, A., & Risnita, R. (2021). Relationship between Work Capacity, Work Motivation and Opportunity to Participate in The Discretionary Behavior of Private Islamic Higher Education Lecturers in Lampung Province. *International Journal of Progressive Sciences and Technologies*, 25(1), 455–467.
- Veenman, M. V., Kok, R., & Blöte, A. W. (2005). The relation between intellectual and Attitude skills in early adolescence. *Instructional Science*, 33(3), 193–211.
- Waltz, C. F., Strickland, O. L., & Lenz, E. R. (Eds.). (2010). *Measurement in nursing and health research*. Springer publishing company.
- Weiner, S., & Dove, P. M. (2003). An overview of bio mineralization processes and the problem of the vital effect. *Reviews in Mineralogy and Geochemistry*, 54(1), 1–29.
- Xia, C. Y., Li, L., Liu, J. Z., Tang, W. Q., Wu, Y. T., & Jia, W. Z. (2019). Genetic variation of Echinococcosis in yaks and sheep in the Tibet Autonomous Region of China based on mitochondrial DNA. *Parasites and Vectors*, 12(1), 1–10.

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