Predictors of Teaching Learning Process

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Abstract Teaching Learning Process (TLP) is an important construct in the education domain as it explains how teaching aids the learning process. The present study is an extension of the same TLP concept, wherein an attempt has been made to examine the relationship between perceived teacher attribute and student achievement. Using a quasi-experimental design, the efficacy of 16 perceived teacher attributes and student achievement were measured on 121 students for one full academic year. The results suggested that five key attributes of teacher viz. optimism, attitude, aptitude, inclusive, and cultural affinity were significantly responsible for higher academic achievement among students. EFE enable to emerge three factors namely Systemic perspective; Emotional and critical perspective; and Role and identity perspective. Subsequently Confirmatory Factor Analysis (CFA) was performed using SEM wherein the relationship between the three factors and the student achievement were examined which was found to be significant.

Keywords: TLP, teaching, learning, teaching-learning, education, attribute

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1. Background

Education is not only content teaching by the teacher but the ability of a teacher to feel the feeling and need of the participants; involvement of teachers with the participants; their love, care, patience, perseverance, tolerance and readiness for the participants as well his attitude and interest to prepare a participant for a successful, better, happy and peaceful life. It is a commitment by a teacher to themselves, participants, management, institute, society, state and nation. A little but sharp observation of the participants by the teacher brings about a strong bonding and develops the two way healthy relation. Asking them the simple questions - How are you; any problem; what's wrong; and some alike questions to find the reason or cause of unhappiness is enough to make them feel a homely environment. People hardly desire anything extra from anyone but sharing some chocolates and a cake to celebrate, adds to their joy. Celebrating their festivals in their way and accompanying them in their celebration; helping and facilitating them do, what they want; brings about a deep bonding full of care, love and affection for each other which is the essential objective of real education - developing oneness; and feeling each other with a feeling of humanity and brotherhood. These are something very small that add fragrance to education and turns the essence for oneness and togetherness. With this basis, Figure 1 clarifies the educational nuances.

Education thus is all about developing a human internally and externally, helping them know their potential and capabilities and thus help them bring out their best from within. Human is full of treasures. As are the treasures hidden in the deep ocean so are the human treasures hidden within, which remain dormant within, without the motivating situations or inspiring forces. Education is thus evoking the dormant best from within and bringing out the best from within. And for this a teacher need not to remain a teacher all the time but remember and posit himself as a human, a friend, a father, a brother, a philosopher and a guide who would change the role frequently as per the need of the time and the participants. It's equally true that there is nothing to teach new but yes, as a teacher, they have a lot to do to explore the hidden treasure within an individual and help them acknowledge with the same. It is this treasure, the application of which adds richness to the life and once it is acknowledged, it is cherished by the individual throughout the life. Thus it becomes important to check the teacher related variables that can affect and impact as well predict the achievement of the students in the TLP.
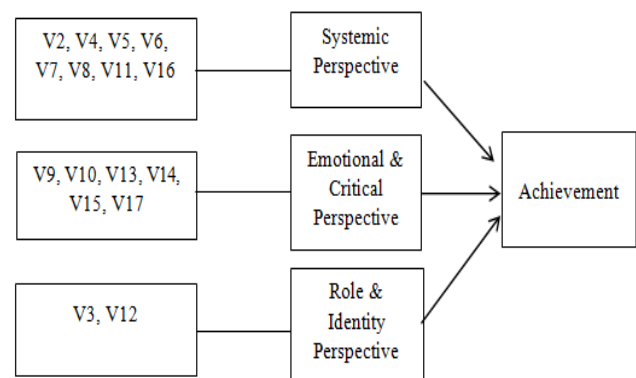

Figure 1. Conceptual Framework of TLP

2. Review of Literature

There exists positive relationship between teachers' subject preparation and student achievement [1,2,3,4,5]. Studies indicate positive relationship of influence of education and pedagogical coursework on teacher effectiveness [6].

Many variables like family life, community, diet, involvement in extracurricular activities, and the school environment affect student achievement. Teachers, however, have direct responsibility to shape student's academic achievement, and are the most important school-based factor in their education [7,8,9,10]. Study reported that academic achievement are strongly mediated by student approaches to learning (SAL) which is itself influenced most by assessment, workload and intrinsic motivation [11]. Another study reveals that teacher self - efficacy and interest had significant correlation with pupils achievement scores. Attitude, qualification, and experience were not significant correlation with pupil's achievement in mathematics [12].

Presage variables that comprise of teacher formative experiences, their training experiences and their personal attributes (that include their beliefs, attitude, perception and background knowledge toward the whole teaching/ learning process) are the traits of teachers that affect the teaching process [13,14]. These properties are presumed to characterize the individual teachers because they carry these traits within themselves [13]. The students' social status and family background can determine classroom interaction [13]. Sullivan suggests that evaluation enforces teachers to organize their teaching practices so that students get maximum benefit [15].

… as we encounter with change, we realize that we dwell in 21st century which is entirely a huge bulk of challenges and changes [16]a. Knowledge has been incessantly enhanced, re-enhanced and modified into many fragments … In educational structure the changing process of knowledge can be felt and observed in different shades [16]b.

Because of psychometric difficulties in assessing teachers by their normative attributes - the logical, psychological, and especially the ethical, which tend to differ across cultures [17] - the tendency to evaluate teacher qualities on the basis of student performance is further emphasized. Due to demands of accountability based on performance standards and evidence-based policy making, student's achievements are the accurate measure of effectiveness and a basis for value-added teacher assessment systems [18,19,20,21].

The essence of teaching is human interaction [22]. Hereby it includes the personal and professional attributes of teachers as communication, collaboration, interest in teaching and enthusiasm for learning, personality, adjustment and adaptation, responsibility, inclusiveness, punctuality, regularity and rapport with pupils. Studies revealed positive correlations of competency and achievement with attitude [23]. Many researchers suggest that positive teacher attitudes are correlated positively with positive pupil attitudes [24,25]. Studies relate teacher's attitude with student attention in classrooms [26] whereas other studies present that student attitude was related to teacher characteristics [27]. Further studies declare that classroom strategies are influenced by teacher attitude which influences pupil attitudes [28].

Studies present teachers' characteristics as strong determinants of students' performance [29]. Ali [30] relates teacher characteristics and student academic achievement. Studies relate teacher experience and pupil performance in primary schools and at upper secondary level [31]. Teaching presence is viewed as influencing both social presence and cognitive presence [32]. Teaching presence may be a useful predictor for agentic and emotional engagement [33]. Bandura [34] maintained that self- efficacy is situation specific and cannot be identified in general terms. Quality teaching has been defined as teaching that maximizes learning for all students [35].

Human knowledge has three phases including preservation, transmission, and advancement. Hence it is not only necessary but important for you to widen the knowledge and follow the three phases of knowledge [36]. Studies indicates that intelligence, anxiety, self-concept, achievement, interaction of intelligence and achievement motivation, and interaction of anxiety and intelligence affect the creativity. Creativity, fluency and flexibility are positively correlated with intelligence, achievement motivation, achievement and self-concept. Negative correlation exists of anxiety with creativity, fluency, and flexibility [37]. A study concluded that the B. Ed. trainee teacher prefers young teachers and that the age should be 30 to 45 years with 1 to 10 years teaching experience [38].

Murray's research [39,40] on six observational studies conducted in Canada found enthusiasm, expressiveness, interaction, and rapport behaviours to correlate with positive student ratings. It added that highly rated university teachers exhibit different classroom teaching behaviours than less highly rated teachers. Overall, effectiveness research shows that instructional behaviours are important for student learning, motivation, and achievement [41].

Study indicates preparedness, organization, presentation, stimulating students' interest, engagement, motivation, enthusiasm, rapport with students, high expectations from students, encouragement and ability to maintain a positive classroom environment as the key for an exemplary university teacher [42]. Teaching, perceived to combine certain human qualities with explanatory skill is most likely to encourage deep approaches to learning [43].

The most widely accepted criterion of effective teaching up to date is student learning and the most widely accepted criterion of student learning in instructional effectiveness research is performance on standardised examinations [44]. Jha [45] depicts difference in creativity of the high school students of Ahmedabad with different levels of intelligence, self-concept, and anxiety. Marsh [44] indicated that students' ratings are primarily a function of the instructor who teaches the course and not of the course that is taught which meant that students' ratings capture perceived instructor effectiveness.

A broad range of skills in the workplace are in demand due to a structural shift towards services and knowledge-intensive jobs [46]. Both discipline-specific and more generic, transferable skills are crucial for today's students to be prepared for tomorrow's workplace [47,48].

Jha [49] suggests that a part of the required and additional qualifications required as the necessary general

quality for a teacher; the *necessary personal qualities* and the *necessary teaching qualities* are required by a teacher. Farhat and Ruhi [50] suggest that academic achievement is indicator for successful future. Deniz, Şener and Huseyin [51] revealed that predictors of the academic achievement of the accommodators were attitudes and high school GPAs; of the divergers was anxiety; of the convergers were gender, epistemological beliefs, and motivation; and of the assimilators were gender, personality, and test strategies. Kucuk, & Richardson [52] depicted that teaching presence, cognitive presence, emotional engagement, behavioral engagement, and cognitive engagement were significant predictors of satisfaction.

3. Rationale of the Study

The above studies indicate preparedness, organization, presentation, stimulating students' interest, engagement, motivation, high expectations, encouragement, ability to maintain a positive classroom environment, enthusiasm, expressiveness, interaction and rapport are teaching behaviours related to teaching learning process which is likely to affect the achievement and satisfaction directly.

Again, any TLP involves application of the *attributes* and *knowledge* for the *education practice* [53]. Hereby, attributes are identifiable characteristics essential to teaching for teachers and learning for students; knowledge refers to the acquired learning that maximise their ability to improve the educational outcomes whereas educational practice refers to the application of the attributes and knowledge to achieve the goals of education. To apply any process to the education, the teacher and his attributes (Table 1) are the key and thus aroused several questions.

Based on the above studies, the attributes identified for the studies were collaborative, commitment, effectiveness, communication, ethics, inclusive, positive, reflective, attitude, leadership, aptitude, compassion, embracing culture, connectivity, creativity, and motivation. The study was conducted to know if these attributes of the teachers can predict the achievement of the students which was taken as the CGPA. The underlying principle for the study is *Education is developing and promoting thinking skills and ability* and the basic assumption is that the *competency is required for both teachers and participants.*

Table 1. Attributes and the Associated Soft Skills and Values

Sr. No.	Personal Attribute	Action	Output	Developed soft skills and Earned values by students
1	Attitude	Keenness, readiness, confidence to add to the prospects	Willingness to support, help, comfortable, belief in self	Boldness, readiness, confidence, acceptance to the new situation
2	Leadership	Better planning, coordination, timely decision taking, thinks and does ahead of all, leads the prospects mentally by thoughts	Clarity of action, idea of societal development, individual and society are complimentary, safe and healthy but challenging environment	Self-discipline, punctuality, decision making, leading
3	Commitment	Interested, dedicated and devoted to accept challenges and inspired to make difference to educate	Educational, personal, social, mental, cultural, moral, value based development	Introspection, observation, Be committed, develop values
4	Effective / Aptitude	Appropriate knowledge of content and methods, Effective presence	Effective teaching and learning, live classroom	Extrovert, outgoing, raise questions, clarify doubts
5	Ethics	Consistent, impartial, protecting the right of others, social justice, fair decisions	Care for each other's rights and be ethical	Care each other, justice, equality, respecting right of others, honesty, truthfulness
6	Communication	Effective presentation with respect to audience and context	Positive influence, Change in behaviour thoughts and ideas	Acceptance for other and their ideas, valuing others and their ideas, add to leadership
7	Optimism	Supportive, constructive, flexible, apply positive reinforce	More involvement, attitude development, interest development	Developing involvement, attitude and interest
8	Creativity	Promotes divergent thinking, acknowledges the potential of the students, helps them do better, creates a healthy environment	Think differently, be different	Add to the ideas, new way of thinking, visualising and creativity
9	Reflective / Critical	Insightful in analysing and decision making	Plan, practice, exercise and demonstrate appropriate behaviour	Appropriate decision making, analytic, form goals, careful and cautious
10	Motivation	Carefully listen, understand, add to the idea, probing, questioning, reinforcing	Positive idea, boosted morale	Add to the confidence, prepare well, forward looking
11	Cultural Affinity	Protect, preserve and transmit culture, associate TLP with culture	Impact of culture, appreciate culture, respects others	Respect, discipline, appreciation, knows self
12	Compassion	Feel the feelings, understand the needs, knows the trouble and cares for its rectification	Healthy teacher student relationship, deep impact of teacher on student	Caring, sensitive, sympathy, empathy, knows self
13	Innovation	Creative problem solvers, risk takers to find solution of a problem	Engage students interest, enhance students learning and provide learning experience	Being creative, take risk, develop confidence and boost their morale, talk and act for being righteous
14	Inclusive	Caring and sensitive to recognise and respond to the social, physical, emotional, cultural and educational needs	Social, physical, emotional, cultural and educational development	Feeling the feeling, responding with care and sensitivity
15	Collaborative	Good interpersonal skill	Create opportunity to communicate and share ideas	Respect others and their ideas
16	Connectivity	Correlation between two subject, person, culture; connects HR, TLP, culture and technology	Develops connectivity with community and development	Association, appropriate use, be a part of community, knows self

4. Research Questions

Are the attributes correlated with each other? Are these attributes capable to bring behavioural change among the participants? Are these attributes or any of these attributes or their group capable to predict the achievement of the participants?

5. Objectives

1. To determine the reliability of the attributes scores of the teachers in the teaching learning process.
2. To study the attributes as the predictors of achievement.
3. To develop a model of TLP.

6. Hypothesis

1. The reliability of the attributes scores of the teachers in the teaching learning process will not be significant.
2. The attributes of the teachers may not be the predictor of the overall achievement scores of the participants.
3. The attributes of the teachers as a group may not be the predictor of the overall achievement scores of the participants.

7. Research Methodology

The population for this study comprised of participants studying foreign language. The instructors/teachers in this context are foreigners teaching students in the home country or in a cross-cultural setting (foreign country). The sample comprised of 121 participants selected by cluster sampling from three different universities.

The experimental method was applied, and the one group time series design was used to conduct this experiment. In one group time series design a series of pre-test was conducted, observations of which were O1, O2, O3 and O4 followed by the treatment and then the post-tests, the observations of which were O5, O6, O7 and O8. The teaching learning was well planned, and appropriate content was developed.

To measure their performance based on the experiments, the general tests to measure their learning, weekly test and the formal achievement test was developed. To measure the performance in drama, role pay, singing, classroom performance etc. evaluation sheets based on observation in a set format was developed and thus data collection was ensured.

After taking the series of pre-test the sample was given the treatment which was followed by series of post-test. The data in the present study was based on the scholastic achievement scores and observation of participants. To verify the hypothesis, the mean, standard deviation, t-test, correlation and ANOVA was used.

Table 2. Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.910	.910	16

8. Analysis and Interpretation of Data

1. To determine the reliability of teacher attributes in the teaching learning process.

The 16 teacher attributes were measured using single item questions on a scale of 1-10, where 1= Extremely low and 10 = Extremely High. The overall item reliability of these attributes were measured using Cronbach alpha, which was .91 in the present case. The Cronbach alpha signified that all the items measuring teacher attributes were highly correlated and capable of determining the attributes to a great extent. Thus, it can also be considered that the 16 item scale used for measuring teacher attributes had a reliability score of .91, which was very high.

Table 3. Stepwise Regression analysis for overall achievement

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.540[a]	0.292	0.286	0.65315
2	.597[b]	0.356	0.345	0.62546
3	.641[c]	0.411	0.396	0.60065
4	.669[d]	0.447	0.428	0.58447
5	.690[e]	0.476	0.453	0.57163
6	.689[f]	0.474	0.456	0.56993

a. Predictors: (Constant), Attitude
b. Predictors: (Constant), Attitude, Cultural Affinity
c. Predictors: (Constant), Attitude, Cultural Affinity, Aptitude
d. Predictors: (Constant), Attitude, Cultural Affinity, Aptitude, Optimism
e. Predictors: (Constant), Attitude, Cultural Affinity, Aptitude, Optimism, Inclusive
f. Predictors: (Constant), Cultural Affinity, Aptitude, Optimism, Inclusive

Table 4. ANOVA[a] Effect of Teacher related variables on the CGPA

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	20.907	1	20.907	49.008	.000[b]
	Residual	50.765	119	0.427		
	Total	71.672	120			
2	Regression	25.510	2	12.755	32.605	.000[c]
	Residual	46.162	118	0.391		
	Total	71.672	120			
3	Regression	29.461	3	9.820	27.220	.000[d]
	Residual	42.211	117	0.361		
	Total	71.672	120			
4	Regression	32.045	4	8.011	23.452	.000[e]
	Residual	39.627	116	0.342		
	Total	71.672	120			
5	Regression	34.095	5	6.819	20.869	.000[f]
	Residual	37.577	115	0.327		
	Total	71.672	120			
6	Regression	33.994	4	8.498	26.164	.000[g]
	Residual	37.679	116	0.325		
	Total	71.672	120			

a. Dependent Variable: CGPA
b. Predictors: (Constant), Attitude
c. Predictors: (Constant), Attitude, Cultural Affinity
d. Predictors: (Constant), Attitude, Cultural Affinity, Aptitude
e. Predictors: (Constant), Attitude, Cultural Affinity, Aptitude, Optimism
f. Predictors: (Constant), Attitude, Cultural Affinity, Aptitude, Optimism, Inclusive
g. Predictors: (Constant), Cultural Affinity, Aptitude, Optimism, Inclusive.

Table 5. Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.084	0.661		6.175	0.000
	Attitude	0.492	0.070	0.540	7.001	0.000
2	(Constant)	3.213	0.682		4.708	0.000
	Attitude	0.393	0.073	0.432	5.371	0.000
	Cultural Affinity	0.201	0.059	0.276	3.430	0.001
3	(Constant)	2.154	0.729		2.954	0.004
	Attitude	0.240	0.084	0.263	2.850	0.005
	Cultural Affinity	0.224	0.057	0.307	3.949	0.000
	Aptitude	0.249	0.075	0.283	3.309	0.001
4	(Constant)	1.063	0.813		1.307	0.194
	Attitude	0.157	0.087	0.173	1.803	0.074
	Cultural Affinity	0.231	0.055	0.317	4.180	0.000
	Aptitude	0.220	0.074	0.250	2.969	0.004
	Optimism	0.221	0.080	0.219	2.750	0.007
5	(Constant)	0.644	0.812		0.793	0.429
	Attitude	0.053	0.095	0.058	0.557	0.579
	Cultural Affinity	0.240	0.054	0.329	4.426	0.000
	Aptitude	0.204	0.073	0.231	2.800	0.006
	Optimism	0.208	0.079	0.206	2.641	0.009
	Inclusive	0.169	0.068	0.212	2.505	0.014
6	(Constant)	0.630	0.810		0.778	0.438
	Cultural Affinity	0.251	0.050	0.344	5.010	0.000
	Aptitude	0.219	0.067	0.249	3.254	0.001
	Optimism	0.220	0.075	0.218	2.922	0.004
	Inclusive	0.186	0.061	0.233	3.069	0.003

a. Dependent Variable: CGPA.

2. The attributes of the teachers may be the predictor of the overall achievement scores of the participants.

Using stepwise regression (see Table 3), we examined whether teacher attributes predict the student achievement or not? Based on the results, R^2 was found to be significant for the attributes scores for optimism, cultural affinity, aptitude, attitude and inclusive, meaning that these five teacher attributes could significant explain student achievement. Further from Table 4 and Table 5, it can be concluded that effect of optimism, cultural affinity, aptitude, attitude and inclusive on the overall achievement scores of the participants is also significant. The attributes of the teachers as a group may not be the predictor of the overall achievement scores of the participants.

Then exploratory factor analysis (EFA) was done to find the factor structure for the 16 teacher attribute items, using Principal Component Analysis and Varimax Rotation, it was found (see Table 6) that three factor solution emerged, which together explained 61.8 % of total variance in the model. The three factors which emerged after the exploratory factor analysis are explained below;

1) Factor 1 has high loadings on Aptitude, Collaborative, Commitment, Attitude, Ethics, Communication, Motivation and Optimism in Descending order.

Therefore, this factor could be termed as *Systemic Perspective* as it plays a very important role to measure an overall skill-based trait. A teacher's aptitude, attitude and motivational level are quite vital while interfacing with the students.

2) Factor 2 has high loadings on Reflective, Inclusive, Innovation, Creativity, Connectivity and Compassion. As a result, it was termed as *Emotional & Critical Perspective.* A teacher needs to have a critical perspective as students have diverse issues thar requires critical reasoning while addressing it. At the same time, emotional well-being also plays a very important role as teacher needs to be emotionally aligned and mature.

3) Factor 3 has high loadings on Cultural Affinity and Leadership. It was thus termed as *Role & Identity Perspective.* A teacher plays diverse role. Many times, a teacher had to be adorn the role of a guru for some students as the situation demands. At the same time, a teacher needs to adapt the role of a, mentor to those students who need direction. Hence, a teacher's role and identity play a vital role and truly the teacher is called as friend, philosopher, and guide.

Considering these three factors, the further analysis was conducted in SEM to study the effect of systemic perspectives, emotional and critical perspective and role and identity perspective of the teachers on the achievement of the students.

All factor loadings were above the suggested limit of .50 (Kline, 1998). At 0.05 significance, the regression weights were significant. The standardized factor loadings of the model are 0.68 for achievement, 0.55 for systemic perspective, 0.77 for emotional and critical perspective 0.89, and 0.50 for role and identity perspective. All factor loadings on academic achievement (CGPA) were significant. The overall fit of the measurement model was iteratively measured to determine whether the CFA model fitted data well. Result from this structural model showed that all fit indices were well within the acceptable limit, i.e., NNFI/TLI=.89, CFI=.91, RMSEA=.067. Collectively, these fit indices indicate that the structural model is acceptable. That is, the second-order teaching quality model is robust and theoretically explains the performance of students. Whereas Figure 1 presents the conceptual model of TLP, Figure 2 ascertains the structural model of TLP.

Table 6. Rotated Component Matrix[a]

	Component		
	1	2	3
Attitude(V2)	**.687**	.590	
Leadership(V3)	.563		**.584**
Commitment(V4)	**.745**		.364
Aptitude(V5)	**.785**		
Ethics(V6)	**.666**		
Communication(V7)	**.616**	.420	
Optimism(V8)	**.520**		
Creativity(V9)		**.637**	
Reflective(V10)	.368	**.701**	
Motivation(V11)	**.603**	.505	
Cultural Affinity(V12)			**.863**
Compassion(V13)	.392	**.525**	.341
Innovation(V14)		**.667**	
Inclusive(V15)	.410	**.672**	
Collaborative(V16)	**.759**		
Connectivity(V17)	.541	**.598**	

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
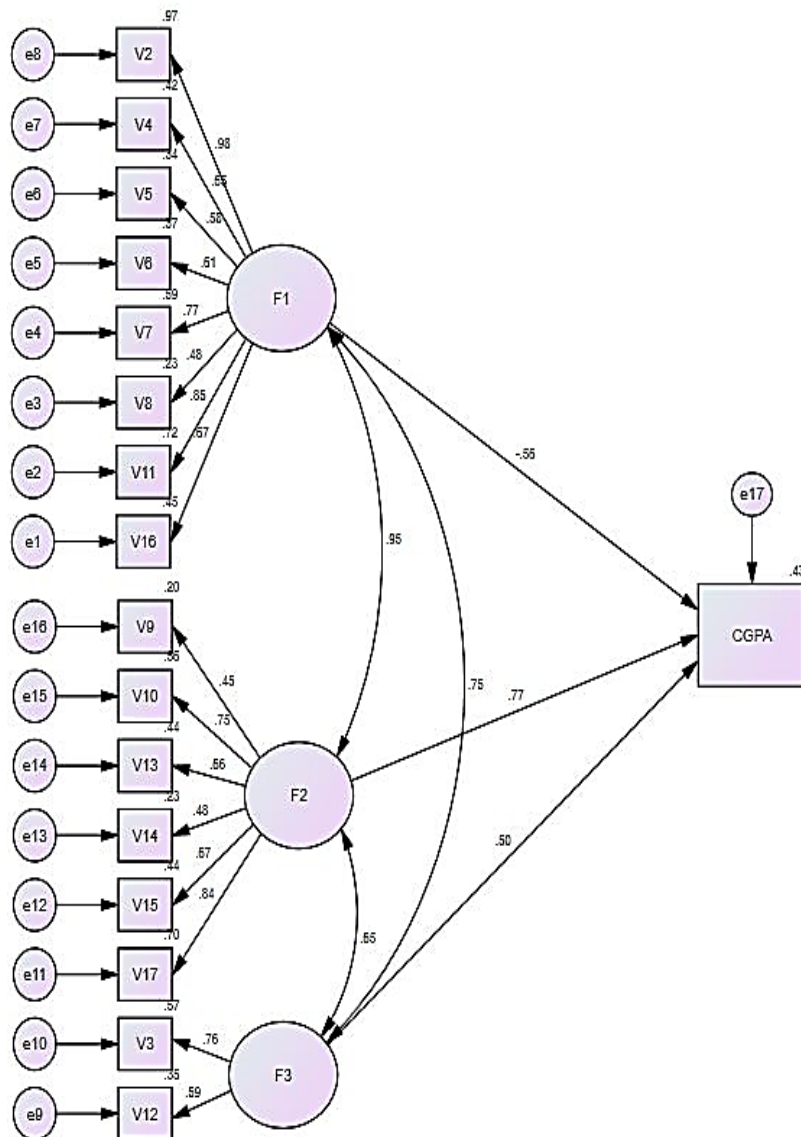a. Rotation converged in 6 iterations.

Figure 2. Structural Model of TLP

Table 7. Indices of the factors used in the research instrument scale reliability and validity of systemic perspectives, emotional and critical perspective and role and identity perspective and achievement

	No. of items								
Variable	Original	Retained	M	SD	Cronbach's α	GFI	CFI	NFI	RMSEA
Systemic perspectives	8	5	8.13	0.759	0.753	0.97	0.955	0.950	0.08
Emotional and critical perspective	6	4	7.194	0.704	0.714	0.98	0.98	0.99	0.04
Role and identity perspective	2	2	8.348	0.69	0.754	0.989	0.981	0.976	0.08
Achievement	1	1	7.956	0.591	0.806	0.958	0.936	0.880	0.07

Table 8. Path analytic results of hypotheses

	USTD	SE	CR	Decision
Relationship between Systemic perspectives, emotional and critical perspective and role and identity perspective with Achievement				
H1a: Systemic perspectives → Achievement	-0.24	0.006	-41.386***	Accepted
H1b: Emotional and Critical Perspective → Achievement	-0.22	0.006	-37.013***	Accepted
H1c: Role and Identity Perspective → Achievement	-0.21	0.007	-31.772***	Accepted

Table 9. Fit measures for Structural model dealing with systemic perspectives, emotional and critical perspective and role and identity perspective

Model	χ^2	Df	χ^2/df	GFI	CFI	NFI	RMSEA	PGFI	PCFI	PNFI
Value	77.311	26	2.973	0.924	0.987	0.981	0.070	0.456	0.570	0.567

9. Results

The attributes of the teacher's viz. collaborative, commitment, effective communication, ethics, inclusive, positive, reflective, attitude, leadership, aptitude, compassion, embracing culture, connectivity, creativity and motivation in the teaching learning process are correlated. Further, it could be interpreted that the attributes of teachers as such optimism, cultural affinity, aptitude, attitude and inclusive in the teaching learning process maybe the predictors of the achievement of the participants.

10. Conclusion

The experiment successfully ended up with 16 attributes required for TLP viz. collaborative, commitment, effective communication, ethics, inclusive, positive, reflective, attitude, leadership, aptitude, compassion, embracing culture, connectivity, creativity and motivation. The high correlation between the attributes indicated that the attributes were mutually dependent. Optimism, cultural affinity, aptitude, attitude and inclusive in the teaching learning process were found to be the predictors of the achievement of the participants. EFE enable to emerge three factors namely Systemic perspective; Emotional and critical perspective; and Role and identity perspective. Subsequently Confirmatory Factor Analysis (CFA) was performed using SEM wherein the relationship between the three factors and the student achievement were examined which was found to be significant.

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