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# Interactive Effect of School principals' Leadership Styles and Teacher Characteristics on Curriculum Implementation at Public Secondary Schools of Punjab

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## Abstract

The research was conducted in the positivist paradigm to determine the interactive effect of school principals' leadership style and the teaching characteristics (traditional Vs. Progressive) of school teachers on curriculum implementation. The research further explores how teaching characteristics mediate between school principals' leadership style and curriculum implementation. Higher secondary school teachers' perceptions were collected from 600 teachers teaching at secondary schools in six districts of Punjab. Multistage sampling was used to draw a sample from a large and diverse population. Descriptive and inferential statistics were used to determine the relationship among various constructs leadership styles, teacher characteristics, and strategies used for the curriculum implementation at secondary schools of Punjab. Path analysis using Structure Equation Modeling with AMOS yielded unique relationships among leadership styles of school principals and teacher characteristics for curriculum implementation. Democratic style of school principals was found to exert maximum direct influence on curriculum implementation with no teacher characteristics mediation. However, it is found that both teacher characteristics play a significant mediating role in curriculum implementation; the visionary style was best mediated through progressive characteristics, and 2) commanding style was mediated through traditional characteristics. The research draws attention to existing gaps in developing teacher expertise for curriculum implementation, which need to be addressed to prepare future teacher leadership in Pakistan.

**Keywords:** curriculum implementation, progressive teaching, secondary school principals, traditional teaching

## Introduction

The educational leaders are challenged knowing the critical roles of technology today, to find which leadership practices effectively influence teachers to improve

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their instructional techniques to refine student learning (Jabor et al., [2013](#)). The human relations theory of leadership calls for freedom, love, and peace, along with the needs satisfaction of followers. Following this definition, with a strong emphasis on the relationships between people, school principals' leadership may be rendered as influencing the subordinates (teachers) through communicating with them in order to achieve organizational goals (curriculum implementation) (DeMatthews, [2014](#)). A repeated finding from previous research point outs a vast gap between the intended and enacted curriculum, that is, how the curriculum was actually designed for teachers to use learning materials in planning and delivery of instruction, and what teachers do in real (Maba, [2017](#); Songer et al., [2002](#); Pietarinen et al., [2017](#)). This study is interested to know how teacher characteristics are translated into the enacted curriculum.

Curriculum implementation involves putting into practice the officially prescribed courses of study, syllabi, and subjects. The process refers to restructuring of the education program that includes adjusting personal habits and routines on the part of school teachers and principals, course emphases, ways of behaving, existing schedules and learning spaces (Haider, [2016](#); Hussain et al., [2011](#)). The implementation aims at change (Albright et al., [2013](#)) involving attempts to change not only individual teachers' knowledge, attitudes, and actions, but that of school principals' as well (Fullan et al., [2005](#); Fullan & Scott, [2009](#)).

Putting the curriculum into operation requires an implementing agent. The teacher is the key agent in the curriculum implementation process. The teacher is entitled to transform a printed program of study into classroom reality (Aguilando, [2012](#)). Teachers' use of curriculum has been a focus of research in a wide range of subfields of education, including the learning of sciences (Drake & Sherin, [2006](#); Schneider & Krajcik, [2002](#)), educational policy (Coburn & Russell, [2008](#)) and curriculum studies (Choppin, [2011](#)). A repeated finding from previous research point outs a vast gap between the intended and enacted curriculum, that is, how the curriculum was actually designed for teachers to use learning materials in planning and delivery of instruction, and what teachers do in real (Songer et al., [2002](#)). This study is interested to know how teacher characteristics are translated into the enacted curriculum.

### **Traditional Teachers**

Traditional teachers are those who have complete authority over the students and their learning, and they exercise complete mastery over the teaching methodologies and instruction, demonstrating 'one-man show' in the classroom. Traditional teachers render their students as having 'knowledge holes,' which must

be filled with new knowledge. Such teachers regard themselves as a repository of knowledge and the agent, which causes learning to occur in others (Novak, [2010](#)). A learning place is a classroom, and it happens in a competitive environment only. The content and delivery of the lessons are the points on which teachers must focus, and direct students to master content through drill and repeated practice. Rote learning is an aid, and it does not help in learning all content in its real context (Theroux & Kilbane, [2004](#)).

Traditional teachers are considered sources of authentic information and knowledge. Parents are considered outsiders and remain uninvolved. The community is also kept away from the schools except for funding. Decision-making is centralized and operationalized through a strict hierarchical mechanism. External criteria, particularly test results, evaluate performance. Learning is linear, with factual accumulation and skill mastery. Knowledge is absorbed through lectures, worksheets, and texts. Instruction is linear and primarily based on correct answers. Disciplines, particularly language and math, are separated. Skills are taught discretely and are viewed as goals. Assessment is norm-referenced, external, and graded. Success is now an adjective based upon numerical grades achieved through standardized methods of testing recall and memory, and it is kept specific to a time/place. Intelligence is a measure of linguistic and logical/mathematical abilities. School is a task to be endured.

### **Constructivist/ progressive Teachers**

Contrarily, the progressive teachers "choose to take a supportive initiative for improvement in personal teaching style and/or learning of students inside or beyond their classrooms. Moreover, in terms of Fullan, such a teacher becomes a "professional believing in lifelong learning and keen to learn emerging pedagogy and technology" ([2005](#), p.17); hence, such a teacher does not work alone but make teams and enter into professional learning communities comprising teachers, parents and other professionals, something of critical importance in curriculum implementation. Constructivist teachers guide and coach students how to learn and train them to shape their own learning experiences for self-regulation (Cohen & Bhatt, [2012](#)).

The progressive teachers make learners active participants, problem solvers, and planners. Teachers are facilitators and guides whose task is to foster higher-order thinking. Performance is determined by mission, philosophy, and goals for graduate learning to remain spiral, working towards improvement. For progressive teachers, Knowledge is constructed through play, direct experience, social interaction, and instruction related to answering the students' critical

questions. Moreover, progressive teachers encourage self-regulated learning; the skills are related to content and viewed as tools. Assessment is benchmarked, has many forms, and is progress-oriented. In this teaching style, success is determined through an application over time, through collaboration; intelligence is recognized as varied, includes the arts, and measured in real-life problem-solving. School is a challenging and fun part of life. David Jonassen identified three major roles for facilitators to support students in constructivist learning environments: modeling, coaching, scaffolding (Jonassen, [1999](#)).

**Table 1**

*Comparison of Traditional vs. Progressive Teachers*

No.	Traditional teachers	Progressive teachers
1	Based on contents & topics	One way approach, Based on standards
2	Focus on objectives	Focus on SLOs
3	Focus on teaching	Focus on learning
4	Teacher centered	Student centered
5	Reading, writing, speaking and using arithmetic (skills)	Interpersonal, communication, teamwork and problem solving skills
6	Promote memorization	deeper understanding, reasoning and application
7	Assessment of content knowledge	Promote thinking
8	simple understanding	TI is a standardized approach for the active construction of knowledge

Researchers (DeMatthews, [2014](#); Glatthorn et al., [2018](#)) have related that school principals have been playing the most critical role in developing high quality, critical, and community-oriented leadership for curriculum implementation and change. There are multiple lenses (Fullan, [2005](#); Leithwood et al., [2008](#); Robinson, [2010](#); Eacott, 2011) through which actions of principals can be examined and judged during curriculum implementation. Researchers are still struggling with understanding the complexity of the principal's role, particularly as they attempt to implement change in schools (Robinson, [2010](#); Slattery, [2013](#)). Some have argued that effective leaders must have a transformational impression on student learning outcomes (Nettles & Herrington, [2007](#); Fullan, [2010](#)).

Robinson ([2010](#), p.12) has pointed towards effective relational skills that would allow for interpersonal trust to build among stakeholders. Therefore, it is vital to investigate the curriculum implementation in the context of the interpersonal

leadership paradigm, i.e., how school principals and teachers interact with each other during curriculum implementation (Masumoto & Brown, [2009](#)). The principals' role, in this case, would be better identified through their disposition towards interpersonal leadership, as explained through six emotional intelligence leadership styles recommended by Daniel Goleman and his associates (Goleman, [2006](#); Goleman & Boyatzis, [2008](#); Goleman et al., [2013](#)). They have underlined six styles, Commanding, visionary, democratic, Affective, Coaching, and Pacesetting.

Calibration of change requires a specific set of capabilities to walk on the long path, beginning from vision and goal setting. Thus visionary leadership is required, which can foresee problems and enact timely to confront these problems. Principalship in public schools of Pakistan is understood as a position based upon seniority and not on necessary skills or aptitude (Uibu & Kikas, [2014](#)), which creates a typical bureaucratic set up of top-down order commanding compliance (Hallinger & Walker [2014](#); Parlar & Cansoy, [2017](#)).

According to Duze ([2012](#)), the successful leaders draw on the same range of basic leadership practices; however, not everyone is ready to expend their hard efforts on new learning. Therefore, the school principals may adopt the role of a coach or guide to create a feasible teaching and learning environment for successful curriculum implementation Possessing the necessary knowledge and skills for curriculum implementation by both principals and teachers does not necessarily ensure that the curriculum will attain the goals it was designed for. It calls for creating a learning environment where both principals and teachers can share their knowledge and expertise in curriculum implementation.

For demonstrating interpersonal leader, principals must be affective, showing concern for teachers' interests, protecting teachers, and helping teachers improve their skills; they show confidence in teachers' ability and allow them to participate in decision-making (James et al., [2019](#)), hence, they become democratic and facilitative. In addition, to promote self-efficacy and empowerment, school principals set high, meaningful, inspirational goals for teachers and set a pace for the teachers to construct new epistemologies for themselves (Nguyen et al., [2019](#); Tian & Huber, [2019](#)).

### **Purpose of the Study**

The primary purpose of this study was to check the interactive effect of school principals' leadership style and the teaching characteristics (traditional Vs. Progressive) of public secondary school teachers of Punjab on curriculum implementation. The research further explores how teaching characteristics

mediate between school principals' leadership style and curriculum implementation. The study was cross-sectional, which collected data from the teachers of the secondary schools of Pakistan, from September to December 2018.

### Research Questions

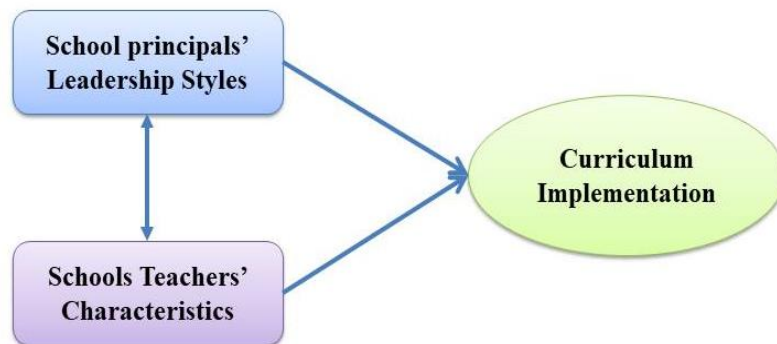
1. What is the interactive effect of school principals' leadership style and the teaching characteristics (traditional Vs. Progressive) of public secondary school teachers of Punjab on curriculum implementation?
2. How do teaching characteristics mediate between school principals' leadership style and curriculum implementation?

### Conceptual Framework

This study aimed to determine the interpersonal role of school leadership; Goleman's six leadership styles were used to assess the school principals' leadership styles. Teaching characteristics were evaluated upon a two-point agenda given by Jonassen and Grabowski (2012) of traditional and progressive teaching. Curriculum implementation comprised the successful outcomes of curriculum implementation derived by literature and mutually agreed by teachers and school principals by a previous study (Mukhtar et al., 2017). The framework is depicted in Fig 1 below:

**Figure 1**

*Conceptual Framework of the Research*



### Methodology

The study was a cross sectional survey conducted in the positivist paradigm. The researchers used correlational research model to confirm the relationship among the variables. As proposed by Creswell and Creswell (2017), this method is used by



choosing two or more quantitative variables from the same group of subject to determine if there is a relationship between the two. A purpose built questionnaire was used to obtain perceptions of public secondary school teachers. The instrument was already tested in previous research (Mukhtar & Arif, 2016); the reliability coefficient was found to be 0.89. Further reliability and validity testing techniques were applied during data analysis.

### **Population & Sampling**

The teachers of public secondary schools of Punjab, a province of Pakistan, constituted the population of this study. Multistage sampling was used to draw a sample from the population. Three divisions were selected out of 9 divisions<sup>1</sup>, one each from southern, central, and northern Punjab. From each division, one developed and one under-developed district was selected, making a total of 6 ( $3 \times 2 = 6$ ). From each district, four secondary schools were selected, two girls and two boys ( $6 \times 4 = 24$ ), making a total of 24 schools. Ten teachers teaching in the school ( $24 \times 10 = 240$ ) were selected, making a total of 240 teachers from each division. 720 was the sample targeted from 3 divisions. Nine hundred questionnaires were distributed (300 in each division) personally and with the help of friends. Six hundred fifty returned, and only 621 were included in the final research.

## **Results**

### **Demography**

Distribution of the target sample is described below in Table 2. The table explains the demographic characteristics of public secondary schools teachers comprising the target sample of the study.

Table 2 informs that majority (63 %) of teachers were female, and only (37 %) were male. Regarding qualification, 45% of teachers had a Masters degree, M.A., M.Sc, or M.Ed, while 45% had bachelors only (B.A. & B.Ed). 6% had MPhil, 2% had BSCS, and only 2% had only F.A., which is considered the minimum qualification for teachers in school teaching and management. The data disclosed that 53% of school principals of our sample possessed the adequate qualification to manage curriculum implementation in public secondary schools of Punjab. Regarding experience, 26% of teachers had 1-5 years of teaching in public secondary schools of Punjab, whereas 20% had 6-10 years of teaching experience. 19% of teachers had 11-15 years of teaching experience, while 35% had 16 or

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<sup>1</sup>Division is an administrative region in a province in Pakistan. Punjab has 9 divisions.



more years of experience of teaching in public secondary schools of Punjab. The data indicated that teachers of our sample serving in public secondary schools of Punjab were well experienced.

**Table 2**

*Demographic Data of Public Secondary Schools Teachers of Punjab*

1	Gender	F	%
	Female	390	63.00
	Male	231	37.00
	Total	621	100.0
2	Qualification	F	%
	F.A	12	2.00
	BA & B.Ed.	282	45.00
	MA, MEd & MSc	283	45.00
	MPhil	33	6.00
	BSCS	11	2.00
	Total	621	100.0
3	Experience	F	%
	1-5	161	26.00
	6-10	125	20.00
	11-15	119	19.00
	16 or more	216	35.00
	Total	621	100.0

### Data Analysis

First of all, the reliability of the questionnaire was checked; the calculated value of Cronbach alpha was 0.948 precisely. Exploratory factor analysis (EFA) analysis and the Scree plot affirmed the factorability of data into six factors with a value of 0.922 for Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy, which should be more than 0.6; Bartlett's Test of Sphericity, with chi-square value of  $\chi^2(153) 3042.385, p < .05$ .

### Factor Analysis

Principal Axis Factoring, with Varimax rotation and Kaiser Normalization, was used to confirm the extracted factors. Most of the rotations converged in 3 iterations. EFA was used (Fabrigar, Wegener, MacCallum, & Strahan, 1999) because data had a large number of variables (64 in our case). Later, structure equation modeling (SEM) was performed as well; therefore, it was necessary to establish strong constructs, for further use as latent variables (Norris & Lecavalier,

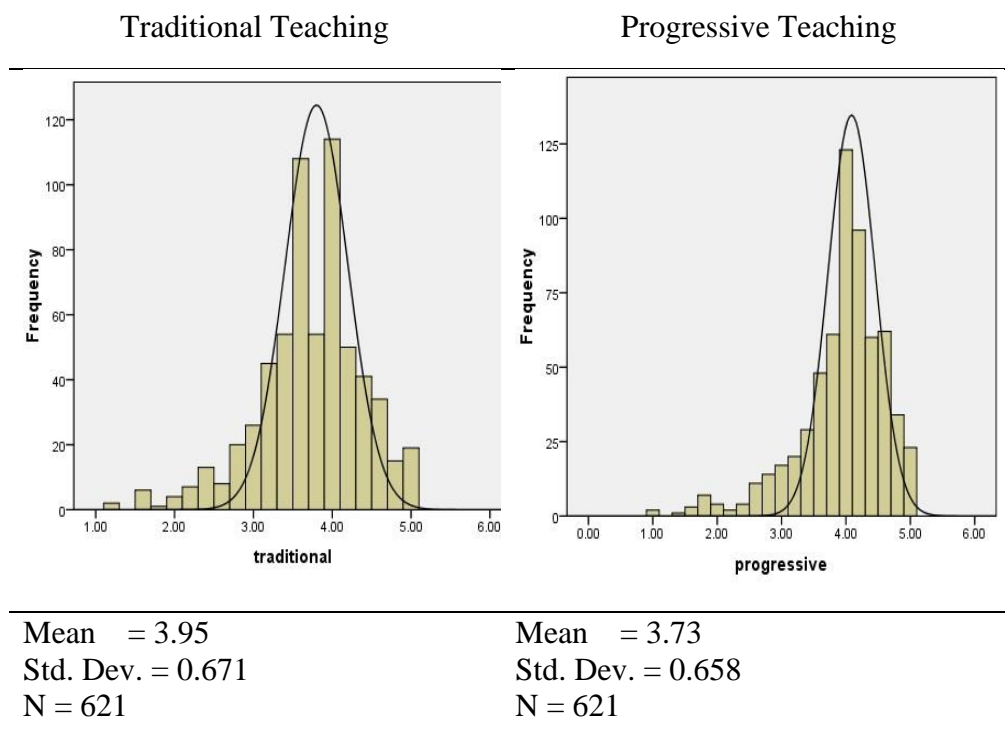
2010). All criteria suggested reasonable factorability; for instance, calculated alpha for the factors was 0.3 or more with at least one other item in the factor. See Appendix A.

### Comparison between Teacher Characteristics (Traditional & Progressive)

The following figure shows the Comparison between Teacher Characteristics (Traditional & Progressive) via histograms.

**Table 3**

*Comparison between Teacher Characteristics (Traditional & Progressive)*



The comparison between teacher's characteristics (Traditional and Progressive) in this graph demonstrated that progressive teaching has higher Mean (3.95) and standard deviation (0.671) than traditional teaching with a Mean value (3.73) and standard deviation (0.658), clearly explaining that the progressive teaching characteristics are more prominent in the teachers of public secondary schools of Punjab than the traditional teaching.

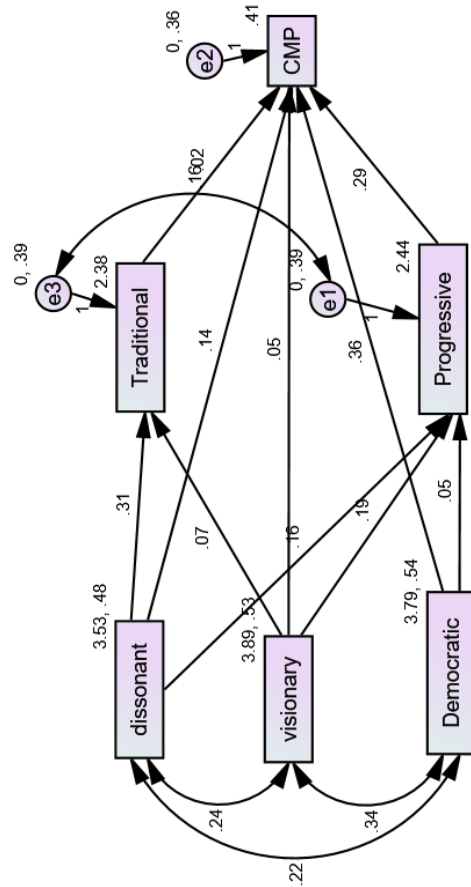
**Table 4**

*Correlation Matrix Showing the Relationship among Factors*

Factors	Commanding	Visionary	Democratic	Traditional	Progressive	Implementation
Commanding	1	.469**	.424**	.353**	.286**	.392**
Visionary		1	.637**	.224**	.323**	.435**
Democratic			1	.193**	.264**	.520**
Traditional				1	.461**	.263**
Progressive					1	.411**
Implementation						1

**Figure 2**

*SEM Model showing Relationships between Leadership Styles, Teacher Characteristics and Curriculum Implementation*



## Pearson Product Moment Correlation

The six extracted factors included three school principals leadership styles as observed by the teachers, 1) Commanding leadership, 2) Visionary leadership, and 3) Democratic leadership, two teacher characteristics, 1) traditional and 2) progressive. The 6th factor was curriculum implementation.

All variables were positively correlated with each other. The results indicated that the democratic leadership style of school principals has the most powerful relationship with curriculum implementation ( $r=.520$ ;  $p<.001$ ) followed by visionary leadership style ( $r=.435$ ;  $p<.001$ ) and commanding ( $r=.392$ ;  $p<.001$ ). Table 3 also demonstrates that traditional teaching is more affiliated with Commanding leadership style ( $r=.424$ ;  $p<.001$ ) than visionary ( $r=.353$ ;  $p<.001$ ) and Democratic ( $r=.264$ ;  $p<.001$ ). Similarly, progressive teaching is more associated with visionary leadership style ( $r=.323$ ;  $p<.001$ ) than democratic ( $r=.264$ ;  $p<.001$ ) or commanding ( $r=.286$ ;  $p<.001$ ).

## Structure Equation Modeling

SEM was further used to check the possibility of direct and indirect relationships among the latent variables. Structural equation modeling (SEM) was used for path analysis to determine how different leadership styles of school principals and teacher characteristics interact to create models of curriculum implementation. The indirect effect is measuring the effect of an independent variable through mediating variables (Preacher et al., [2010](#)). It was important because, in an SEM path, the variables come to the forefront are those who are not influenced by other (exogenous) variables, but exert influence on other (endogenous) variables (Schreiber et al., [2006](#)). Empirical results derived from a complex multivariate model representing standardized regression coefficients are demonstrated figure 2.

The model explicates the complex relationships between school principals' leadership styles, teacher characteristics, and attempts for curriculum implementation. Democratic leadership has the best direct effect on curriculum implementation, followed by Commanding and visionary leadership. Similarly, progressive teaching has a more powerful influence on curriculum implementation.

Regarding indirect influences, it is clear that progressive teaching acts as a strong mediator between all leadership styles and attempts for better curriculum implementation. Progressive teaching seems to double the effect of leadership in sharp contrast to traditional teaching. However, the results are not the same for

progressive teachers; traditional teaching tends to subside or mute the effect of commanding leadership styles upon curriculum implementation; this means that traditional teaching acts as a barrier in all leadership efforts towards change. The fit indices for the table are described below:

**Table 5**

*Fit Indices for Leadership Styles, Teaching Characteristics, Leadership Strategies and Curriculum Implementation Success*

Model	CMIN	DF	P	CMIN/DF	RMR	GFI	AGFI	CFI	RMSEA
Default model	.133	1	.715	.133	.000	1.000	1.00	1.000	.000

*Note.* N=621, All change in chi square values are computed relative to model,  $\chi^2 > .05$ ., GFI= Goodness of fit index, CFI=comparative fit index, NFI=normed fit index; RMSEA=root mean square error of approximation, SRMR=Standardized root mean square,

The fit indices for model 1 are ( $\chi^2 (1, 621) = 0.133, p > .05$ ), as shown in the table above. The indices of absolute and relative fit (GFI, CFI, AGFI, RMSEA, RMR) were compared to get a good fit. Since  $\chi^2/df$  was 0.133, the Root Mean Square Error of approximation and standardized root mean square (RMSEA, SRMR) for the initial model was .000, whereas, the values of GFI, AGFI, CFI were 1.0, 1.0 and 1.0 respectively, the model One can be considered a good fit. Researchers (Hu & Bentler, 1999; Marcoulides & Yuan, 2017) recommend  $\chi^2$  should either be non-significant or the value of  $\chi^2/df$  should lie in between 0 and 3; RMSEA and RMR values should be .08 or lesser, whereas, the value 0.9 or higher for Comparative Fit Index (CFI), Normed fit Index (NFI) and Goodness of Fit Index (GFI) are considered as the index of a good fit.

Results of direct effects showed that commanding and democratic leadership styles were significant and positive predictors for both progressive and traditional teachers leading to successful curriculum implementation. The results are further elaborated in Table 5.

**Table 6***Standardized Estimates of Direct & Indirect Effect Paths of the Model*

Hypothesis	$\beta$	SE	Decision
Commanding $\rightarrow$ traditional	.308***	.048	Accepted
visionary $\rightarrow$ traditional	.069	.045	Rejected
democratic $\rightarrow$ traditional	.000	.000	Rejected
Commanding $\rightarrow$ progressive	.158***	.048	Accepted
visionary $\rightarrow$ progressive	.194***	.050	Accepted
democratic $\rightarrow$ progressive	.052	.053	Rejected
Commanding $\rightarrow$ curriculum	.053**	.048	Accepted
visionary $\rightarrow$ curriculum	.141	.048	Rejected
democratic $\rightarrow$ curriculum	.361***	.053	Accepted
progressive $\rightarrow$ curriculum	.286***	.056	Accepted
traditional $\rightarrow$ curriculum	.017	.048	Rejected
Commanding $\rightarrow$ traditional $\rightarrow$ curriculum			Accepted
Commanding $\rightarrow$ progressive $\rightarrow$ curriculum	.051**	.018	
visionary $\rightarrow$ traditional $\rightarrow$ curriculum			Accepted
visionary $\rightarrow$ progressive $\rightarrow$ curriculum	.057***	.021	
democratic $\rightarrow$ traditional $\rightarrow$ curriculum			Rejected
democratic $\rightarrow$ progressive $\rightarrow$ curriculum	.015	.015	

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

There is a direct effect of Commanding leadership style on traditional teachers ( $\beta = .308$ ,  $SE = .048$ ,  $p < .01$ ), progressive teachers ( $\beta = .158$ ,  $SE = .048$ ,  $p < .001$ ) and curriculum implementation ( $\beta = .053$ ,  $SE = .048$ ,  $p < .01$ ).

There is direct effect of visionary leadership style on progressive teachers ( $\beta = .194$ ,  $SE = .05$ ,  $p < .001$ ).

There is direct effect of democratic leadership style on curriculum implementation ( $\beta = .361$ ,  $SE = .053$ ,  $p < .001$ ).

There is direct effect of progressive teachers on curriculum implementation ( $\beta = .286$ ,  $SE = .056$ ,  $p < .001$ ).

There is an indirect effect of commanding leadership style on curriculum implementation ( $\beta = .051$ ,  $SE = .018$ ,  $p < .01$ ).

There is an indirect effect of visionary leadership on curriculum implementation ( $\beta=.057$ ,  $SE=.021$ ,  $P<.001$ ).

### Discussion

The results have confirmed the previous research that curriculum implementation is heavily influenced by the teachers' beliefs about teaching, learning, and supportive leadership practice. Failure in successful curriculum implementation is often attributed to bureaucratic and authoritarian management of schools by teachers (Handler, [2010](#)). However, the results of this study highlight that the traditional mindset of school teachers is a more significant barrier than any leadership style.

The way a teacher may act is usually pre-decided in the blue book of their organization and all school principals and teachers mutually strive together through this common consensus for creating an ultimate teaching and learning environment in the school (Day et al., [2007](#); Fullan, [2013](#)). Therefore, it is of utmost importance that educational contexts in schools must be agentic to foster attitudes of learning and improvement in school teachers (Day et al., [2005](#)). This attitude, however, is not necessarily restricted to school teachers only but must be part of the professional training of school principals as well (Mukhtar & Arif, [2016](#)). Ultimately, it is the attitude which matters, and teacher characteristics, e.g., attitude toward new curriculum or their failure to realize meaningfulness in their work can influence their participation towards learning and change more strongly than any other school context (Kwakman, [2003](#); Vähäsantanen, [2013](#); Van Oers, [2015](#)).

The results also confirm the results of Gorozidis and Papaioannou ([2011](#)), who concluded that teaching experience was negatively related to most of the determinants of curriculum implementation. Instead, teachers' philosophy and perceptions of self-efficacy mediated between goal orientation and actual performance. What need shaping are teachers' beliefs about teaching for meaningful change and successful curriculum implementation?

Results also point out towards the recommendations given by Qian and Walker ([2013](#)) that teacher qualification works better than teaching experience. The teachers with better qualifications have built-in awareness for the leadership responsibility attached to empowerment; all they want is freedom for the execution of the creative and innovative ideas they have learned in a university classroom or engaging at social media with various learning communities. It seems that they get lesser opportunities to exercise the skills suitable for change or reform challenging teacher agency.



Whereas we witness improvement in teachers expectations in this study who want to exercise as progressive teachers, the school principals still act as commanding leaders, conforming to the results of previous research (Swai, [2002](#); Albashiry, [2019](#)) which, identified that the centralized education system inhibits teacher empowerment in Pakistan. The school principals are not well prepared to consider their leadership role and remain content in executing functioning as government representatives.

## Conclusions

It is concluded on the basis of results generated through Pearson Product moment correlation and structure equation modeling that the both leadership styles of school principals and teacher characteristics interact to produce unique models for curriculum implementation.

Progressive teachers display their best roles in presence of the democratic leadership of the school principals; in this case the teachers share the professional experience with them and try to facilitate, motivate and share experiences and knowledge with their colleagues, which can be referred to as teamwork and building of professional learning communities. Contrarily the traditional teachers tend to give their best under the supervision of commanding leadership of their school principals, helping them to meet short term deadlines.

It is concluded that both teaching characteristics (traditional and progressive) mediate between leadership styles and curriculum implementation. Commanding and visionary styles become more effective with the mediation of teacher characteristics. The democratic and visionary school principals are better disposed for leading towards teacher leadership by fostering a culture of mutual understanding, responsibility and initiative; whereas, the commanding leadership is restricted to close supervision, lack of freedom and innovative practices to manage the immediate deadlines efficiently.

## Implications

Maba ([2017](#)) identified that teachers' lack of competence in the implementation of the new curriculum might be attributed to deficiencies in the environment, such as the new knowledge is advanced and does not match pre-knowledge of students, and teachers' skills. Teachers may find it hard to find supplementary material for teaching new concepts. Above all, if implementation protocol is rigidly defined, and does not supplement the subject's requirement, such as using the same protocol for science and humanities subjects, similar activities in all lessons, consequently, both the teachers and students will get bored of routinized instruction.

Since the results of the current study imply that teachers' outlook is transformed, the researchers urge the governing authorities of the public education system to engage teachers in the leadership roles culminating in real distributed leadership practice. Such roles are carved befitting the diverse pedagogical, technical, and social skills the teacher higher education is inculcating in upcoming graduates.

Yaniju et al. (2019) recommend establishing teachers' learning community for creating an environment of curriculum implementation in the schools. Such communities should work for the integration of learning resources available in and beyond the schools. Teachers' task is to work collaboratively for curriculum implementation, build scaffolding for teachers' learning and professional development, and run smoothly (Fox et al., 2015). However, during the curriculum implementation, collecting feedback is essential for later evaluation and further quality improvement.

Always it is implied that professional development and training must happen early in the implementation phase, before this may lose confidence in the 'new curriculum'; hence extensive explaining is required what does the "new" mean, and what teachers have to learn precisely to modify their classroom teaching behaviors. Only a well-designed comprehensive training program can meet teachers' specific needs (DeMatthews, 2014; Ajani, 2019).

### References

- Aguilando, H. B. (2012). *The role of stakeholders in curriculum implementation*. <http://www.slideshare.net/PHILLMURP/implementing-the-curriculum-the-Roles-of-stakeholders-hazel-and-jeric>
- Ajani, O. A. (2019). Understanding teachers as adult learners in professional development activities for enhanced classroom practices. *Journal of Politics, Economics and Society*, 9(2), 95–208.
- Albashiry, N. (2019). The need for curriculum leadership to sustain systematic and collaborative curriculum design practices. In J. Pieters, J. Voogt, Pareja Roblin N. (Eds.). *Collaborative Curriculum Design for Sustainable Innovation and Teacher Learning*. Springer.
- Albright, J., Clement, J., & Holmes, K. (2012). School change and the challenge of presentism. *Leading and Managing*, 18(1), 78–90.

- Choppin, J. (2011). Learned adaptations: Teachers' understanding and use of curriculum resources. *Journal of Mathematics Teacher Education*, 14(5), 331–353.
- Coburn, C. E., & Russell, J. L. (2008). District policy and teachers' social networks. *Educational Evaluation and Policy Analysis*, 30(3), 203–235.
- Cohen, D. K., & Bhatt, M. P. (2012). The importance of infrastructure development to high-quality literacy instruction. *The Future of Children*, 2, 117–138.
- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.
- Day, C., Elliot, B., & Kington, A. (2005). Reform, standards and teacher identity: Challenges of sustaining commitment. *Teaching and Teacher Education*, 21(5), 563–577.
- Day, C., Sammons, P., Stobart, G., Kington, A., & Gu, Q. (2007). *Teachers matter: Connecting lives, work and effectiveness*. Open University Press.
- DeMatthews, D. E. (2014). How to improve curriculum leadership: Integrating leadership theory and management strategies. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, 87(5), 192–196.
- Drake, C., & Sherin, M. G. (2006). Practicing change: Curriculum adaptation and teacher narrative in the context of mathematics education reform. *Curriculum Inquiry*, 36(2), 153–187.
- Duze, C. O. (2012). The changing role of school leadership and teacher capacity building in teaching and learning. *Journal of Emerging Trends in Educational Research and Policy Studies*, 3(1), 111–117.
- Fabrigar, L. R., Wegener, D. T., MacCallum, R. C., & Strahan, E. J. (1999). Evaluating the use of exploratory factor analysis in psychological research. *Psychological Methods*, 4(3), 272–291.
- Fox, R. K., Muccio, L. S., White, C. S., & Tian, J. (2015). Investigating advanced professional learning of early career and experienced teachers through program portfolios. *European Journal of Teacher Education*, 38(2), 154–179.
- Fullan, M. (2005). The meaning of educational change: A quarter of a century of learning In A. Lieberman (Ed.), *The Roots of Educational Change* (pp. 202-216). Springer.

- Fullan, M. (2010). *All systems go: The change imperative for whole system reform*. Corwin Press.
- Fullan, M. (2013). *Stratosphere: Integrating technology, pedagogy, and change knowledge*. Pearson.
- Fullan, M., & Scott, G. (2009). *Turn around leadership for higher education*. John Wiley & Sons.
- Fullan, M., Cuttress, C., & Kilcher, A. (2005). Forces for leaders of change. *Journal of Staff Development*, 26(4), 54–58.
- Glatthorn, A. A., Boschee, F., Whitehead, B. M., & Boschee, B. F. (2018). *Curriculum leadership: Strategies for development and implementation*. SAGE.
- Goleman, D. (2006). *Social intelligence: Beyond IQ, beyond emotional intelligence*. Bantam.
- Goleman, D., & Boyatzis, R. (2008). Social intelligence and the biology of leadership. *Harvard Business Review*, 86(9), 74–81.
- Goleman, D., Boyatzis, R. E., & McKee, A. (2013). *Primal leadership: Unleashing the power of emotional intelligence*. Harvard Business Press.
- Gorozidis, G., & Papaioannou, A. (2011). Teachers' self-efficacy, achievement goals, attitudes and intentions to implement the New Greek physical education curriculum. *European Physical Education Review*, 17(2), 231–253.
- Haider, G. (2016). Process of curriculum development in Pakistan. *International Journal of New Trends in Arts, Sports & Science Education (IJTASE)*, 5(2) 66–79.
- Hallinger, P., & Walker, A. (2014). Exploring whole school vs. subject department improvement in Hong Kong secondary schools. *School Improvement and School Effectiveness*. 26(2), 215–239.
- Handler, B. (2010). Teacher as curriculum leader. *Journal of Teacher Leadership*, 3(3), 32–42.
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6, 1–55.

- Hussain, Z., Adeeb, A., & Aslam, H. D. (2011). Curriculum implementation and feedback mechanism at secondary school level in Punjab Pakistan. *International Journal of Learning & Development*, 1(2), 92–98.
- Jabor, K. M., Sale, M. I., Deba, A. A., Musta'mal, A. H., & Sadiq, A. (2013). Responsibility of school's leaders in tackling the e-learning barriers in technical and vocational education higher institutions. *Journal on Efficiency and Responsibility in Education and Science*, 6(3), 134–142.
- James, C., Crawford, M., & Oplatka, I. (2019). An affective paradigm for educational leadership theory and practice: connecting affect, actions, power and influence. *International Journal of Leadership in Education*, 22(5), 617–628.
- Jonassen, D. H. (1999). Constructing learning environments on the web: Engaging students in meaningful learning. *EdTech 99 - Educational Technology Conference and Exhibition 1999: Thinking Schools, Learning Nation*.
- Jonassen, D. H., & Grabowski, B. L. (2012). *Handbook of individual differences, learning, and instruction*. Routledge.
- Kwakman, K. (2003). Factors affecting teachers' participation in professional learning activities. *Teaching and Teacher Education*, 19(2), 149–170.
- Leithwood, K., Harris, A., & Hopkins, D. (2008). Seven strong claims about successful school leadership. *School Leadership and Management*, 28(1), 27–42.
- Maba, W. (2017). Teacher's perception on the implementation of the assessment process in 2013 curriculum. *International Journal of Social Sciences and Humanities (IJSSH)*, 1(2), 1–9.
- Masumoto, M., & Brown, S. -W. (2009). Case study of leadership practices and school-community interrelationships in high-performing, high-poverty, rural California high schools. *Journal of Research in Rural Education (Online)*, 24(1), 1–10.
- Marcoulides, K. M., & Yuan, K.-H. (2017). New ways to evaluate goodness of fit: A note on using equivalence testing to assess structural equation models. *Structural Equation Modeling: A Multidisciplinary Journal*, 24(1), 148–153.
- Mukhtar, S. & Arif, S. (November, 2016). *Leadership styles of school principals and its effect on curriculum implementation*. Paper presented at the ICORE

- 2016, 4th International Conference on Research in Education, University of Punjab, Lahore, Pakistan.
- Mukhtar, S., Arif, S. & Asghar, Z. (October, 2017). *Teacher leadership in curriculum implementation at secondary schools in Pakistan*. Paper present at Global Teacher Education Summit, Beijing Normal University, China.
- Nettles, S. M., & Herrington, C. (2007). Revisiting the importance of the direct effects of school leadership on student achievement: The implications for school improvement policy. *Peabody Journal of Education*, 82(4), 724–736.
- Nguyen, D., Harris, A., & Ng, D. (2019). A review of the empirical research on teacher leadership (2003–2017): Evidence, patterns and implications. *Journal of Educational Administration*, 58(1), 60–80.
- Norris, M., & Lecavalier, L. (2010). Evaluating the use of exploratory factor analysis in developmental disability psychological research. *Journal of Autism and Developmental Disorders*, 40(1), 8–20.
- Novak, J. D. (2010). *Learning, creating, and using knowledge: Concept maps as facilitative tools in schools and corporations*. Routledge.
- Parlar, H., & Cansoy, R. (2017). The effect of bureaucratic school structure on teacher leadership culture: A mixed study. *Educational Sciences: Theory & Practice*, 17(6). 2175–2201.
- Pietarinen, J., Pyhältö, K., & Soini, T. (2017). Large-scale curriculum reform in Finland-exploring the interrelation between implementation strategy, the function of the reform, and curriculum coherence. *The Curriculum Journal*, 28(1), 22–40.
- Preacher, K. J., Zyphur, M. J., & Zhang, Z. (2010). A general multilevel SEM framework for assessing multilevel mediation. *Psychological Methods*, 15(3), 209.
- Qian, H., & Walker, A. (2013). How principals promote and understand teacher development under curriculum reform in China. *Asia-Pacific Journal of Teacher Education*, 41(3), 304–315.
- Robinson, V. M. (2010). From instructional leadership to leadership capabilities: Empirical findings and methodological challenges. *Leadership and Policy in Schools*, 9(1), 1–26.

- Schneider, R. M., & Krajcik, J. (2002). Supporting science teacher learning: The role of educative curriculum materials. *Journal of Science Teacher Education*, 13(3), 221–245.
- Schreiber, J. B., Nora, A., Stage, F. K., Barlow, E. A., & King, J. (2006). Reporting structural equation modeling and confirmatory factor analysis results: A review. *The Journal of Educational Research*, 99(6), 323–338.
- Slattery, P. (2013). *Curriculum development in the postmodern era: Teaching and learning in an age of accountability*. Routledge.
- Songer, N. B., Lee, H. S., & Kam, R. (2002). Technology-rich inquiry science in urban classrooms: What are the barriers to inquiry pedagogy? *Journal of Research in Science Teaching*, 39(2), 128–150.
- Swai, N. (2002). *The role of school head teacher in empowering teachers: A case study* (Unpublished master's dissertation). Aga Khan University, Karachi, Pakistan.
- Theroux, J., & Kilbane, C. (2004). The real-time case method: A new approach to an old tradition. *Journal of Education for Business*, 79(3), 163.
- Tian, M., & Huber S. G. (2019). Mapping educational leadership, administration and management research 2007–2016: Thematic strands and the changing landscape. *Journal of Educational Administration*, 58(2), 129–150.
- Uibu, K., & Kikas, E. (2014). Authoritative and authoritarian-inconsistent teachers' preferences for teaching methods and instructional goals. *Education*, 42(1), 5–22.
- Vähäsantanen, K. (2013). Vocational teachers' professional agency in the stream of change. *Jyväskylä Studies in Education, psychology and Social Research*, 2, 460–489.
- Van Oers, B. (2015). Implementing a play-based curriculum: Fostering teacher agency in primary schools. *Learning, Cultural and Social Interaction*, 4, 19–27.
- Yaniju, K., Chang, Y.-C., & Yang, C.-H. (2019). From school-developed curriculum to school-based curriculum: The action strategies for curriculum leadership of principals. *Journal of Curriculum Studies*, 14(2), 49–65.



## Appendix A

### Factor Analysis

No.	Commanding	Factor Loadings	Alpha
1	clear directions by his or her powerful stances	.604	.773
2	wants compliance and disowns people if they fail to obey	.596	
3	tends to keep everything under tight control	.611	
4	sets hard deadlines for us to do the job	.633	
5	monitors everyone's progress	.456	
6	is obsessive about doing things better and faster and replaces poor performers	.578	
Visionary			
7	creates harmony by building strong emotional bonds	.486	0.688
8	solves conflicts and removes misunderstandings between people	.437	
9	lsp7-explains the importance of teacher's role in school's performance	.529	
10	relates feedback on performance with school's goals and mission	.484	
Democratic			
11	takes keen interest in all school activities and supervises them	.599	
12	Takes a opinion from all teachers before taking a decision	.579	
13	lis quite realistic about what can and cannot be accomplished	.543	
14	coaches and guides teachers to do the right job	.525	
15	helps teachers in identifying their unique strengths and weaknesses	.535	
16	focused on learning and long term career success of his/her teachers	.383	
Traditional Teaching			
17	I use traditional methods for lesson planning.	.472	0.718
18	Discipline is not an issue of my class.	.636	

19	I have complete mastery over the content I am teaching	.788	
20	I can use different teaching styles suiting the needs of a particular lesson.	.632	
Progressive Teaching			
21	I make my lesson plans according to SLO, described in curriculum.	.619	
22	I can assess all learning outcomes advised in the curriculum.	.667	0.754
23	I am a significant part of curriculum implementation process.	.668	
24	I feel myself responsible for implementing new practices for the curriculum	.657	
25	I am willing to learn from others to improve my teaching	.614	
Successful Curriculum Implementation			
26	The goals set by our principal are consistently followed during the academic year.	.657	0.807
27	The goals set by our principal are met.	.616	
28	Our school principal takes the implementation of curriculum as a serious responsibility	.727	
29	Our school principal directs all academic activities for successful implementation of the curriculum.	.740	
30	Our school principal directs all co-curricular and extracurricular activities for effective implementation of the curriculum.	.682	
31	Our principal actively encourages the teachers to seek out relevant and engaging professional development opportunities to help in understanding the implementation of curriculum.	.491	
32	Our principal provides feedback to concerned authorities about teachers' experiences in the implementation of the curriculum	.466	