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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 points out 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 points out 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 | Tl 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*

![Conceptual Framework Diagram](image)

**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 divisions¹, 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*2=6). From each district, four secondary schools were selected, two girls and
two boys (6*4 =24), making a total of 24 schools. Ten teachers teaching in the
school (24*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

¹Division 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

|   | Gender | F  | %   |
|---|--------|----|-----|
| 1 | Female | 390| 63.00|
|   | Male   | 231| 37.00|
|   | Total  | 621| 100.0|

|   | Qualification | F  | %   |
|---|---------------|----|-----|
| 2 | 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|

|   | Experience | F  | %   |
|---|------------|----|-----|
| 3 | 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,
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)*

| Traditional Teaching | Progressive Teaching |
|----------------------|----------------------|
| Mean = 3.95          | Mean = 3.73          |
| Std. Dev. = 0.671    | Std. Dev. = 0.658    |
| N = 621              | N = 621              |

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          | 1         | .637**     | .224**      | .323**      | .435**         |
| Democratic  | 1          | .193**    | 1          | .461**      | .263**      | .520**         |
| Traditional | 1          | .461**    | .263**     | 1           | .411**      |                |
| Progressive | 1          | .411**    | .520**     | .435**      | 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| 1.00| 1.00 | 1.00| .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 \( \chi^2/\text{different} \) 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 | .051**   | .018|Accepted |
| visionary $\rightarrow$ traditional $\rightarrow$ curriculum | .057***  | .021|Accepted |
| visionary $\rightarrow$ progressive $\rightarrow$ curriculum |               |     |          |
| democratic $\rightarrow$ traditional $\rightarrow$ curriculum | .015     | .015| Rejected |
| democratic $\rightarrow$ progressive $\rightarrow$ curriculum |               |     |          |

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

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 ($\beta=.057, \text{SE}=.021, P<.001$).

**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).

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## 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            |       |
| 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            |       |

### Visionary

| No. | Commanding                                                                 | Factor Loadings | Alpha |
|-----|-----------------------------------------------------------------------------|-----------------|-------|
| 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            |       |

### Democratic

| No. | Commanding                                                                 | Factor Loadings | Alpha |
|-----|-----------------------------------------------------------------------------|-----------------|-------|
| 17  | I use traditional methods for lesson planning.                              | .472            | 0.718 |
| 18  | Discipline is not an issue of my class.                                    | .636            |       |
|   | Statement                                                                                       | Score | Correlation |
|---|-------------------------------------------------------------------------------------------------|-------|-------------|
|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  |             |
|    | Our school principal directs all co-curricular and extracurricular activities for effective implementation of the curriculum. | .682  |             |
|30 | Our principal actively encourages the teachers to seek out relevant and engaging professional development opportunities to help in understanding the implementation of curriculum. | .491  |             |
|31 | Our principal provides feedback to concerned authorities about teachers’ experiences in the implementation of the curriculum | .466  |             |