

## **Parental Involvement as Predictor for Self-regulated Learning and Academic Achievement of Students at Secondary School Level**

Muhammad Shahid Farooq<sup>1</sup> & Iqra Asim<sup>2</sup>

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### **Abstract**

Parental involvement is essential for child's successful learning and development of essential skills. They nurture self-regulated behaviors by satisfying the necessary needs of their child. In this study a causal comparative design was used to explore the causal relationship among parental involvement, self-regulated learning and academic achievement of secondary school students. The sample was consisted of 619 students of public and private secondary schools of a metropolitan city of Pakistan selected through multistage probability sampling. Self-developed instruments PII (Parental Involvement Inventory) and ASLI (Academic Self-regulated Learning Inventory) were used to collect respondents' responses. This study revealed four key parenting dimensions; autonomy support, academic assistance, structure facilitation and relatedness that have stronger considerable effect on academic achievement as well as on self-regulated learning. These parenting dimensions are found to shape students' attitude for self-regulated learning at home settings that may cause to empower their learning at school and improves their academic grades. It is also found that parents of private secondary school students are more concerned with their Childs' learning and those students are found more self-regulated and high in their academic affairs. So, there may be parental involvement programs directed in order to ensure parents' involvement in their child's learning. School-home relationship be more structured in order to create awareness about how to teach and coach self-regulatory process at home to their children by satisfying their psychological needs to make their learning progress more vibrant.

**Keywords:** Parental involvement, Self-regulated learning, Autonomy support, Academic assistance, Structure facilitation, Academic achievement

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<sup>1</sup>Associate Professor, Institute of Education and Research, University of the Punjab, Lahore,  
Email: shahid.ier@pu.edu.pk

<sup>2</sup>Institute of Education and Research, University of the Punjab, Lahore

**Introduction**

Self-regulated learning (SRL) is very important to academic achievement and parents indirectly raise child's academic success by encouraging self-regulated behavior in their child. Students can become an effective learner by taking active participation in their own learning process. Self-regulated learning has its social origin. Teachers, parents and peers are important stakeholders in helping children to assume initiatives, responsibilities and manage their learning process. Parenting practices and academic aspirations have influence on student's academic performance certainly throughout their optimistic effect on child's self-motivation and self-evaluation values that are the components of self-regulated learning (SRL).

Parents play an important role in positive development of their children. Parental autonomy support helps to promote self-regulated attitude among adolescents and in turn raise their academic grades. Parents provide support in a number of ways (*i.e.*) help their child in raising self-efficacy, provide help in autonomous decision making, help in home based projects, and provide opportunities to practice self-regulated learning strategies at home (Grijalva-Quiñone, Valdés-Cuervo, Parra-Pérez, & García Vázquez, 2020). Parents communicate their expectations and aspirations to their children for increasing increase their motivation, because parents shape their motivational beliefs. They kept educational discussions with their children and try to solve their problems (Boonk, Gijsselaers, Ritzen, & Brand-Gruwel, 2020).

Parents create first complete ecology of child development with the aim of fulfilling child's essential needs *i.e.* physical, emotional and social needs of their child (Tsemrekal, 2013). Parents' values and behaviors affect the child's development and their attitudes, actions shape the nature and course of child's development (Fuentes, García-Ros, Pérez-González, & Sancerni, 2019). In a formal school setting, teachers have less time to entertain Self-regulated learning components in their classroom. So parents provide ample opportunities to practice self-regulated strategies at home by giving them autonomy support, feelings of competence and by assisting in their educational tasks (Thomas, De Backer, & Lombaerts, 2019). Parents play necessary role in child's emotional, physical and social development. Parents help their child to experience self-efficacy of academic behaviors that lead them towards academic enjoyment and raise their confidence in academic tasks (Dong, Wang, Zhu, Li, & Fang, 2019).

Parental participation in child's learning that having discussion on child's school work and having meetings with teachers assists child's learning and their academic performance. Parents' involvement may cause to boost the development of (SRL) in their children (Thomas, Backer, Kindekens & Peeters, 2016). Empathic and encouraging parenting behaviors and actions help to develop SRL in children (Liew, Kwok, Chang & Chang, 2014). According to self-determination theory (SDT), parents fulfill the

psychological desires of their child (*i.e.*) the requirements for autonomy, competence and relatedness and thus facilitate child's motivation in school. These practices help children to become active agents in their schools and other activities (Grolnick, 2009).

Involvement of parents has been described in different researches as representation of various parental behaviors and practices *i.e.* parental expectations for their children academic achievement (Syb, Rowley, Schulenberg, 2008; Sanders & Sheldon 2009), parents' provision of guidelines and structure (Tam & Chan, 2009), provision of autonomy support to solve problems on their own, support their initiatives and facilitate autonomous motivation (Farkas & Grolnick, 2010).

The learners, who are self-regulated in their behavior, are more likely to take interest in their learning activities. SRL enable learner to make right decisions and choices about their academic performances. Self-regulated students show more interest in their learning activities and are able to design better strategies to achieve learning goals. It is very essential to encourage self-regulated behavior during the stage of adolescents because adolescents required more autonomy or self-determination (Wang & Cai, 2017). The self-regulated learning (SRL) refers to active participation of students in their own learning by setting short & long term goals, monitor and control their performances and ability to self-imposed contingencies in order to accomplish their goals. Self-regulated learners are reflective individuals who have capability to control their behaviors (Daniel, Wang & Berthelsen, 2016).

Shumane (2009) argued that parents can make substantial contributions to child's learning activities. Thus it can be assumed that practices of parents' participation may affect child's academic achievement through self-regulated learning efforts. Parental involvement practices may have indirect influence on children academic achievement by manipulating self-regulated behaviors in their childhood (Xu & Wu, 2013).

### **Literature review**

Parents' involvement (PI) is a concept that has multiple dimensions. There is a number of parenting practices that parent may use to boost the academic performance of their children. Parents provide assistance in academic performance of child they assist in behavioral control and adolescent negligence. Parents' involvement practices are positively and significantly related with SRL, which in turn is considerably linked with academic achievement of their children (Wang & Cai, 2017).

Grijalva-Quiñonez, Valdés-Cuervo, Parra-Pérez, & García Vázquez (2020) concluded that parental involvement has direct and indirect relationship with children's self regulated process and academic performance. Parents provide home based assistance to their child and help them to practice self-regulated strategies in home environment. They provide autonomy support and have greater effect on child's academic achievement by influencing on SRL. Students show greater academic achievement whose parents are

involved rather than those whose parents show less concern and involvement in their child's education (Boonk, Gijsselaers, Ritzen, & Brand-Gruwel, 2020). Parental involvement has considerable effect on child's academic performance by showing parental expectations and aspirations (Boonk, Gijsselaers, Ritzen, & Brand-Gruwel, S., 2018).

Amani, Nazifi, & Sorkhabi (2019) conducted a study on adolescents and found parental involvement as predictor and Self-regulated learning as mediator for students' academic achievement. Parents have greater influence on academic life of adolescents by providing the opportunities for SRL. Xu, Benson, Mudrey-Camino and Steiner (2010) conducted a path analysis by using early childhood longitudinal study. According to their study, parents provide stimulus for self-regulation by modeling, encouraging, facilitating and rewarding. Thus academic achievements can be predicted by affecting self-regulatory behaviors of children. Results found that educational expectations by parents, their involvement in school and help in their child's home work, have stronger effects on SRL and SRL play mediating role among parent involvement and reading achievement of their children.

Cheung and Pomerantz (2012) investigated connection between PI and academic achievement in their longitudinal study of adolescents. The obtained outcome shows that there is positive connection between concerned variables and also depicted that increased PI was related to higher motivation and SRL, which in turn lead towards improved grades.

According to Tam and Chan (2009) self efficacy beliefs of students in their academic performance as well as their SRL among adolescents were positively related to parents' provision of guidelines and structure. Different researches have exposed that the advantages of parents' participation practices fluctuate according to school level of their children.

Parents can promote independence and problem solving skills in their children. When parents share different skills and strategies related to do task with their children, they are more likely to show better performance, and metacognitive understanding of tasks. Parents can support SRL in their children when they provide assistance in school based task and projects (Gonzalez-DeHass & Willems, 2005).

According to Stiller and Ryan (1998), PI is most important predictor of their children's academic achievement. Autonomy support by parents is main evidence to foster self-determination in children in a home setting. Parental autonomy and involvement predict students' understanding of responsibilities about their school outcomes, the extent of children's competency to do their actions and self regulation.

According to socio cognitive theory self-regulated behavior is situational specific and dependent on the interactions of student's personal, behavioral, and environmental factors. This suggests that student may not acquire self-regulation naturally but it has to

be taught specifically within a domain of particular task (Judd, 2005). Several members influenced the student academic work (*i.e.* school community, teachers, parents etc. Parents are an important link of communication about students learning problems because schools actions are informed through informal parent network. Parents provide a leadership of involvement in home based tasks (Walker, Hoover-Dempsey, Whestel & Green, 2004).

Different researches scrutinize the consequences of PI practices on academic attainment of students. It is pointed out that PI may have indirect effect on academic achievement of students by manipulating other outcomes such as motivation of students, building positive attitude and self-regulated learning in them (Martinez-Pons, 2002 ; Sandler & Hoover-Dempsey, 2005).

Martinez-Pons (2002) found that encouragement of self-regulated behavior by parents predict academic achievement of students. Parents' academic expectations for their child predict learning goals of their child which in turn predict improved final grades (Zimmerman, 2008).

Parents' provision of structure is very important for students' self-regulated learning. Structure refers to the clear course of actions and productive feedback, which is helpful to enhance confidence in students to scrutinize their study behaviors efficiently. Thus, parents who are highly structured, make sure satisfaction for need of competence, which enable learner to get involve in self-regulated learning. Structure provides opportunities to learners to regulate their learning, but it is not enough adequate (Kwan & Wong, 2016).

Students have also need to use SRL strategies in presence of autonomy support that work as fuel with structure. Because autonomy support along with structure, enhance interest and intrinsic motivation of students in their learning activities. So that students involve in learning process more willingly without external pressures, and this personal willingness provide the opportunities to use SRL strategies. Structure mainly gives the necessary information (ability of competence) for SRL, whereas the support for autonomy gives the motivation (independence) to begin the strategies of SRL (Sierens, Vansteenkiste, Goossens, Soenens & Dochy, 2009).

Wentzel (1998) examined a study that how adolescents accommodating relationship with their parents, teacher and peers that influence their learning motivation, social and academic goals. Results showed that parent supporting behavior are effective for goal orientation, in which student showed a desire to achieve, based on feelings of satisfaction and competence or actual intellectual development.

Intrinsically motivated children understand the importance of learning opportunities and find it significant to fulfill their psychosomatic needs such as increased competence, create relation with others, articulate themselves and pursue their interests (Brophy, 2008).

Intrinsically motivated children learn for boosting their information, to gain deep understanding, or skills for their academic activities. In contrast extrinsically motivated children learn to get excellent scores, to impress other and to shun punishments (Grolnick, 2002). Intrinsic motivation is found positively related with a number of psychosomatic and educational benefits such as creativity and confidently face difficulties, deep understanding of what have learned, excellent grades and higher scores in standardized achievement test (Froiland, 2011).

Motivational decline was noted in adolescents that showed no association among psychological needs of students and learning environment of adolescents. Less self efficacy believes mostly decrease motivation in students and may cause them to fail in recognition of task. Less motivated and less efficient students have less self-regulation in their academics such as less attentive in classroom; fail to get ready for exams and even to achieve well in final examination (Zimmerman & Cleary, 2004). Deutcher and Ibe (2004) found a positive connection among participation of parents in school and increased motivation of students. Results depicted that students are highly motivated to learn more not only in school and outside of the school, whose parents are regularly in contact with teachers.

When students find limited choices in learning activities and fewer opportunities of personal choices, they may have decreased level of self-motivational beliefs (Pintrich & Schunk, 2002). Ames and her colleagues (1993, 1995) focused on home-to-school communication of parental involvement and found high children intrinsic motivation when their parents take interest in their learning activities. This study paying attention on home-to-school involvement practices by parents that include providing information to parents about classroom learning activities, strengths and accomplishments of their child, and knowledge about how to help their child in his/her learning process.

Parental involvement have significant impact on elementary and secondary school students when they have high academic expectations and more expectedly provide educational resources i.e. books, learning materials, provide help in homework, and provide cognitive rich activities such as taking them to libraries and museums (Jaiswal & Choudhuri, 2017).

Sander and Sheldon (2009) found in their research that when parents have high hopes and expectations for their child's better performance, they have discussions about future plans with their children, supervise their learning activities and those children have great tendency to achieve well in academic performance. Furthermore parents' expectations affect indirectly on adolescents achievements and have greater effect on students' capabilities which in turn increase competency skill and raise their self-efficacy.

Despite these positive influences of parenting practices, some researchers have highlighted that parents' help in home assigned activities create worthless and negative

results also. They found negative relationship between parents' help in home work activity and academic performance of students (Fan & Chen, 2001; Jeyens, 2005)

Parental involvement is an important component of social environment for adolescents' support of learning and has greater effect on students' academic achievement. Parental involvement might also influence on the developmental skills of students' SRL that lead towards academic success. Relationship of parental involvement and students' academic achievement is well recognized in previous studies, but causality and mediating role of self-regulated learning is mostly ignored or least concerned. Due to the limited researches that make connection between parental involvement and SRL, the present study considered the framework of social cognitive theory of SRL (Pintrich, 2000 & Zimmerman, 2002) to examine different PI practices that are effective to promote SRL skills in order to increase academic achievement of students.

### **Objectives of the study**

The objectives of this study were to;

1. Examine the relationship among parental involvement, self-regulated learning and academic achievement of secondary school students.
2. Assess the mediating role of self-regulated learning between parental involvement and academic achievement.

### **Research Questions**

1. Is there any relationship between parental involvement, students' SRL and academic achievement of secondary school students?
2. Does SRL mediate between parental involvement and student academic achievement?

The result of the current research may provide practical and rationalized information on parental involvement dimensions or practices to gear their participation in children's education. Parents can improve self-regulated learning skills by providing parenting practices; autonomy support, academic assistance, structure facilitation and relatedness at home, to make increased academic success of their children. The current study may be helpful in increasing parental engagement in their children's developmental and educational process.

Teachers may familiarize themselves with parental involvement practices that are most probably useful to enhance SRL skills in students. This study will provide essential information to teachers, educators and policy makers to guide parents on which steps they can enhance their involvement in children's development to make their learning constructive.

This study may have information to make more emphasis on better home-school partnership, and also can improve the nature of parent-teacher meetings (PTMs). The

outcome of the study may also be valuable for schools heads, educators and policy makers, who are developing schemes of study, parental involvement programs in order to ensure parents' participation practices at home or in school based activities to teach specific skills and strategies to parents for teaching and reinforcing SRL skills at home.

## **METHOD AND PROCEDURE**

This research was quantitative in nature because it investigated the causal relationship between Parental Involvement (PI), Students' SRL and Academic Achievement. A causal comparative research design was used to check the cause and effect relationship with regarding to PI, SRL and Academic Achievement of secondary school students. The main rationale of this study was to investigate the dimensions of parents' involvement that are most probably constructive to shape the attitude for SRL which in turn may cause to increase the academic success of secondary school students.

### **Sampling**

With regard to self-regulated learning across the age spectrum, secondary students have been less adequately studied. Accordingly the population of this research was consisting on the secondary school students, who have passed the secondary school certificate examination (BISE Lahore) of 9<sup>th</sup> Grade in private and public secondary schools from a Metropolitan city of Lahore-Pakistan.

In this study a multistage probability sampling was used to collect data from target population. In the first stage, two strata's of public (173) and private (372) schools was determined through stratified sampling technique. There were 173 public (77 boys, 96 girls) and 372 private (178 boys, 194 girls) schools in two zones of a Metropolitan city Lahore of Pakistan. Second step is consisting on the sub strata's of boys and girls in both public and private strata's. In the second stage, 20 public (9 boys, 11 girls) and 48 private (23 boys, 25 girls) schools were sampled through simple random sampling by taking 12% of each stratum in public schools strata's and 13% of each stratum in private school strata's. At the third stage, through proportionate stratification 170 boys & 163 girls were selected from public schools and 148 boys & 138 girls were sampled from private schools. With proportionate stratification, the sample size of each stratum was proportionate to the population size of the stratum. Total representative sample size was consisted on 619 public & private secondary school students.

### **Instrumentation**

In this study two self developed instruments were used.

- I. Parental Involvement Inventory (PII)
- II. Academic Self-regulated Learning Inventory (ASLI)

The instrument parental involvement inventory (PII) was developed in the light of different parental involvement measures. PII was consisting of two parts. First part was consisting on demographic variables of the study (*i.e.*) School Name, Gender, School Type, Board Examination Roll No., Marks on standardized achievement scores, Parental Status, Father's / Guardian Qualification, Mother's Qualification, Parents' Income and Number of siblings under 18 years in household that were used to gain detailed information about respondent. Second section was consisting on 30 items related to parental involvement practices. Students were asked to respond on five point Likert type scale (Never = 1, Rarely = 2, Sometimes = 3, Often = 4, Always = 5).

In the light of standardized instrument, Motivated Strategies for Learning Questionnaire (MSLQ), a second self-developed inventory, academic self-regulated learning inventory (ASLI) was used in this study for gaining insights whether it can evaluate effectively the use of SRL strategies among secondary school students. Likert type scale (SD strongly disagree, D disagree, UD undecided, A agree, SA strongly agree) was used in this instrument in order to gauge the responses of respondent about the phases of self-regulated learning. The instrument was consisting on 40 items related to cyclical process of self-regulated learning in which respondents were asked about the use of different strategies of self-regulatory process.

The students' scores on standardized examination of Board of Intermediate and Secondary Education (BISE) Lahore were considered as academic achievement to check causal relationship with regards to parent involvement, SRL and their academic achievement.

The questionnaire was piloted on those students who have passed annual external examination of 9th Grade, so that their standardized scores can be obtained for true analysis. It was administered by researcher with their teachers' cooperation during a normal 30-35 min time of classroom. To make sure that difficulties and ambiguity in ready statements would not hinder a student's ability to fill the inventory, the instructions and all items have read audibly by the researcher and written also on board when requested. Informed permission was taken from all contributing students, and their school heads, and classroom teachers also. The anonymity of all participants was guaranteed. The students' roll number not their names were required.

To check the internal consistency of the statements reliability analysis was conducted and shown in terms of the reliability coefficients of the variable PI that were measured on 30 items. All dimensions of parental involvement variable have up to standard reliability ( $\alpha > 0.70$ ). The variable parental involvement as a whole has good reliability of  $\alpha=0.91$ . Self-regulated learning was measured through academic self-regulated learning inventory (ASLI) which was calculated on 40 items related to cyclical process of SRL (*i.e.* task analysis, self-belief, self-control, self-monitoring, self-evaluation and self-imposed contingencies). The overall internal consistency for the self-

regulated learning scale was found  $\alpha=0.93$  that indicated high extent of internal consistency.

## Results

In this section results of this study are presented after analyzing data.

### 1. Relationship between PI, SRL and Academic Achievement

To check the strength and direction of linear relationship mostly used statistics is correlation analysis. It is used to check correlation between two variables.

Table 1

*Correlation Matrix for PI, SRL and Academic Achievement (n=619)*

Correlation Coefficients of Study Variables		1	2	3
1. Academic achievement		1		
2. Parental involvement		.550**	1	
3. Self-regulated learning		.547**	.705**	1

\*\* $p < 0.05$  (2-tailed), \* $p < 0.01$  (2-tailed)

The connection between parental involvement and academic achievement was checked by using Pearson product-moment correlation coefficient. To make sure no violation of the assumptions of normality, linearity and homoscedasticity, preliminary analyses were performed. There was a strong affirmative relationship between study variables ( $r = .55$ ,  $n = 619$ ,  $p < .0005$ ), which means high parental involvement predicts high academic achievement of students. Parents' involvement has a significant positive relationship with students' self-regulated learning ( $r = .70$ ,  $n = 619$ ,  $p < .0005$ ). Which means high parental involvement predicts high self-regulation among students. The mediator self-regulated learning has significant relationship with dependent variable academic achievement ( $r = .54$ ,  $n = 619$ ,  $p < .0005$ ). Which shows high self regulation predicts high academic achievements among students.

### 2. Mediating role of Self-regulated learning (SRL) between Parents involvement (PI) and Students' Academic Achievement

"Hayes process" consisting of different 76 models of mediation, moderation, and conditional process analysis, was used for analyses. It is mostly used to estimate direct and not direct effects either in single or multiple mediation models. It also helps to find out multiple interactions in moderation models and conditional indirect effects in moderated mediation models with a number of mediators or moderators (Hayes, 2017).

Table 2  
*Hayes Model -- Result of Mediation Analyses for PI and SRL*

MODEL 4 Hayes Process							
Y=Academic Achievement (AA)							
X=Parental Involvement (PI)							
M=Self-regulated learning (SRL)							
N=619							
Outcome: SRL							
Model: Summary							
	R	R-Sq	MSE	F	Df1	Df2	P
	.7055	.4977	.1804	611.3013	1.0000	617.0000	.0000
Model							
	Coeff	SE	T	P	LLCI	ULCI	
Constant	1.4337	.1011	14.1848	.0000	1.2672	1.6003	
PI	.6046	.0245	24.7245	.0000	.5643	.6449	

Table 2, the R<sup>2</sup> value of model predicts that the relationship of PI and SRL of students explains 49.77% variance in self-regulated learning and the model shows to be significant (F =611.3013 and P = 0.000) at 0.05 level of significance. It shows that a positive significant relationship exists between involvement of patents and SRL of students ( $\beta=0.6046$ , T=24.7245, p=0.0000).

Table 2.1  
*Hayes Model Summary -- Result of Mediation Analyses for PI , SRL and AA*

Outcome: AA							
	R	R-Sq	MSE	F	Df1	Df2	P
	.5898	.3479	4145.9892	164.3204	2.0000	616.0000	.0000
Model							
	Coeff	SE	T	P	LLCI	ULCI	
Constant	88.4409	17.6434	5.0127	.0000	59.3764	117.5053	
SRL	42.9496	6.1024	7.0382	.0000	32.8969	53.0023	
PI	35.9574	5.2298	6.8754	.0000	27.3421	44.5726	

The R<sup>2</sup> value of model predicts that the interaction of parents' involvement and SRL of students explains 34% variance in academic achievement and the model shows to be significant (F=164.32) and p<0.05. Self-regulated learning has a significant constructive relationship with academic achievement ( $\beta= 42.9496$ , T=7.0382, p=0.0000). The interaction effect of parents' involvement (PI) and SRL has showed significant result ( $\beta=35.9574$ , T=6.8754, p=0.0000). Thus mediation is taking place and third research question and objective is supported. The positive value of  $\beta=35.9574$  shows that positive

relationship existing between PI and academic achievement. As parental involvement increased then the academic achievement of students also increased.

Table 2.2

*Hayes Model Summary -- Result of Mediation Analyses for PI and AA*

	R	R-Sq	MSE	F	Df1	Df2	P
	.5436	.2955	4472.1282	258.7509	1.0000	617.0000	.0000
Model							
	Coeff.	SE	T	P	LLCI	ULCI	
Constant	150.0197	15.9124	9.4279	.0000	123.8068	176.2326	
PI	61.9243	3.8496	16.0857	.0000	55.5827	68.2659	

The R<sup>2</sup> value of model predicts that the connection of parents' involvement and students' academic achievement explains 29.55% variance in academic achievement. And the model shows to be significant (F= 258.75, p=0.0000) at p<0.05 level of significance. There exists an significant relationship between PI and students' academic achievement ( $\beta=0.2955$ , T=16.0857, p=0.0000).

Table 2.3

*Direct and Indirect Effects of X on Y*

Direct Effect of X on Y						
	Effect	SE	T	P	LLCI	ULCI
	35.9574	5.2298	6.8754	.0000	27.3421	44.5726
Indirect Effect of X on Y						
PI	→	SRL	→	AA		
	Effect	Boot SE	Boot LLCI	Boot ULCI		
SRL	25.9670	3.8967	20.4328	33.6642		

The direct effect of involvement of parents on dependent variable academic achievement of students is significant ( $\beta=35.9574$ , T=6.8754, p=0.0000) in the presence of mediator self regulated learning (SRL). The indirect effect through SRL is also significant which shows partial mediation.

### Discussion

The aim of educational research is not limited to investigate the connection between involvement of parents and students' academic achievement. There is need to gain indepth understanding concerning the practices through which parental involvement make effect and may increase the students' academic achievement (Fuentes, García-Ros, Pérez-González, & Sancerni, 2019).

Therefore, main objective of this research was investigating whether PI goes ahead to increase students' academic achievement by affecting students' use of self-regulated learning skills and if there is a mediating role of SRL between PI and students' academic achievement, then there is need to understand whether PI has direct effect on increased academic achievement of students or has indirect effect through influencing their use of self-regulatory process.

The result of this study has shown partial mediation of self-regulated learning. Thus it can be concluded that involvement of parents possess both direct and indirect effect on increased academic accomplishments of students. Parental involvement has strongest considerable effect on academic achievement of students through SRL. Therefore, SRL is the mechanism through which parents' participation can easily shape self-regulatory attitude for increased academic realization (Grijalva-Quiñonez, Valdés-Cuervo, Parra-Pérez & García Vázquez, 2020).

The mediating effect of SRL presents a structure for parents, educators and policymakers to facilitate child to gain increased academic achievement. Particularly, PI pattern that leads to increased academic achievement must be in such a way that does not hinder students' self-regulated learning process development (Amani, Nazifi, & Sorkhabi, 2019). Teachers, educators and policymakers can promote self-directedness in students by engaging their parents in educational process because parents may offer such an environment at home that can engage children in the development of self-regulatory process rather than doing work for them. The reason is that the parents' involvement that increases self-directedness in their children, will lead towards better learning achievement (Thomas, Muls, De Backer & Lombaerts, 2019).

The kind of autonomy support, academic assistance, structure facilitation and relatedness of parents should be in such a way that helps in boosting students' achievement and enable them to become more self-regulated. The help by parents enable their children to do their own work, solve problems, take initiatives and make useful planning and decisions about their learning process. When students do their work by their own, they learn how to take responsibilities and experience control over their learning process (Wang & Cai, 2017).

Parents create an appropriate structured environment to endorse self-regulated learning in children (Boonk, Gijsselaers, Ritzen & Brand-Gruwel, 2018). Finding of this study has shown that provision of structure given by parents is significantly related with students' SRL and students' academic attainment as predicted by self-determination theory (Desi & Ryan, 2002). Results of this study are aligned with theory of self determination, involvement practices of parents are more likely to convene adolescents' need for autonomy, competence and relatedness that encourage SRL which in turn positively related with students' academic achievement.

Parents' academic assistance also has association with self-regulated learning of students. Parents provide help to their children in planning of educational activities that highlight students' responsibility for their learning by allowing them to make choices by their own in learning projects, time management towards completion of their tasks; learning activities, or studying for upcoming exams (Jaiswal & Choudhuri, 2017). Parents provide them help to make learning goals, help them in monitoring and evaluating learning progress by providing feedback and scaffolding. Thus they can learn how to use SRL strategies in their leaning process (Yan, 2020).

### **Conclusion**

It is one of the essential and major goals of education to produce learners who can be self-directed, intentional in their actions, which can attain and retain new knowledge. The learners who have ability to solve their problem can make healthy and useful decisions on their own. The role of parenting is very crucial in child's development and in their school's accomplishment. Parental involvement is an important vehicle for carrying parent-teacher services together in schools. Parental involvement is a powerful school improvement lever that can create a momentous variation in the learning of their children. Parental involvement practices are one of the forms of supports that parents use to teach children to become more self-sufficient and self confident learners. This study concludes how parents can induce self-regulated learning in their children by using autonomy support, academic assistance, structure facilitation and relatedness that enable them to function effectively in learning process.

In conclusion, four dimensions of parenting are identified that are likely to boost the development of SRL skills of secondary school level learners: Autonomy Support, Academic Assistance, Structure Facilitation and Relatedness that are found to have greater effects on students' SRL as well as on their academic success. Moreover, PI strongly affects students' academic achievement from all the way through SRL. The mediating effect of SRL may helpful to make clear that how these parenting practices are helpful to shape the attitude to become self-determined learner and promote academic achievement. By considering the largest significant effects of PI on SRL, parents may be able to effectively participate in educational process of their children.

### **Recommendations**

1. Classroom and homework activities should organize in such way that can raise self-regulatory skills, as well as instruction programs should need to be organized for parents in order to make them aware about how to teach and coach self-regulatory process to their children to make their learning progress more vibrant.

2. There should be awareness programs and parent teacher meetings in secondary schools in order to improve the level of the family-school relationship through high parental involvement in their child's learning.
3. Future researchers may consider more dimensions of parental involvement that can be useful for shaping attitude of SRL and increased academic achievement.
4. School teachers, administrators and policymakers may propose more effective educational programs and training courses to help parents for involvement in their brood education.

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