Teaching Styles as Moderator between Metacognitive Awareness and Study Habits among University Students

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The present study aimed to examine the role of teaching styles as moderator between meta-cognitive awareness and study habits among male and female university students. Sample comprised of 400 university students (200 male and 200 female) of age ranging from 18-25 years taken from different universities of Islamabad and Rawalpindi. The questionnaires used to assess study variables consisted of the Meta-cognitive Awareness Inventory (Schraw & Dennison, 1994) which measured two-component model of meta-cognition including knowledge and regulation of cognition, Study Habits Inventory (Wrenn, 1941) which measures the study habits displayed by the students and Teaching Style Questionnaire (Chen, 2008) measuring authoritarian style, democratic style, laissez faire and indifferent teaching styles. Results showed that meta-cognitive awareness was positively related with teaching styles and study habits in university student. Results also indicated that meta-cognitive awareness positively predicted the study habits in university students. Hierarchical regression analysis suggested that teaching styles significantly moderates the relationship between meta-cognitive awareness and study habits. Future implications of the study were also discussed.

Keywords. Teaching styles, meta-cognitive awareness, study habits, university students.

Students are considered as future of any country and play an important role in the prosperity of whole world. Whenever qualified students drop out or fail from graduate school, or they may feel difficulty in continuing their study process, it makes us to think about such performance discrepancies. Researchers started paying attention on not only understanding factors involved in academic success and failure of students but also analyzing wide range of student characteristics as predictors of academic performance. This study reflects the significance

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of various strategies in improving study habits of students. The ultimate aim of all educationists and educational institutions is to enhance hidden potential of all students and make their study process flexible and qualitative. There is a need to devise such teaching methodologies that assists all students to learn and comprehend their subjects without any difficulty. Therefore, this study helps not only in revealing effectiveness of intellective strategies in building productive study habits of students but also proves to be significant in highlighting the contribution of various teaching styles. No doubt, that there is a narrow range of researches available on teaching styles which are found to be as effective as students' efforts in academic achievement.

It is rather more surprising that under supervision of same professors, same teaching system, same subjects, same time of the day for a specific course, why some students show good performance while others do not? What are those factors involved in bringing such differences? and what is the best way to arrange study process so that all students learn and perform equally well according to schools' expectations (Cerna1 & Pavliushchenko, 2015). Moghadam and Cheraghian (2009) found that study process of students is not in good quality so there is a need to give emphasis on effectiveness of students' study process. Despite perceived importance of study habits to academic achievement; our educational institution pays little attention to understand these factors (Baquiran, 2011).

Study habits mean the habits that an individual might have developed with respect to his learning activities (Nagaraju, 2004). Habitual ways of exercising and practicing their abilities for learning are termed as study habits of learners. Kholi (1977) suggested that study habits have particular theoretical and practical importance in the academic field. Okpala, Okpala, and Ellis (2000) reported positive relationship between good study habits and performance in economics course. It was also suggested that students' study habits, skills, and attitudes, in turn, have positive effect on student grades (Crede & Kuncel, 2008). Blake (1954) and Shaw (1955) reported that students showed marked improvement in study habits as a consequence of training in study skills. Pazhanivel (2004) conducted study on students of secondary level and found significant relationship between study habits and academic achievement. So there is a need to discover finite treasure within every learner in order to improve effective study habits.

During the last twenty years of cognitive research, it was found that meta-cognition is the critical component of the intellect (Boekaerts,

Pintrich, & Zeidner, 2000; Mooney, 2002) as implementing and integrating knowledge, inventiveness, and self monitoring are considered as hallmarks of intelligent behavior. Meta-cognition is a term that includes reflective, constructive and regulated learning at all levels of education and for students of different intellects. It is also referred to understanding and monitoring of one's thoughts and tasks performance (Iiskala, Vauras, Lehtinen, & Salonen, 2011) or more simply thinking about one's thinking (Efklides, 2006). It is found that low levels of meta-cognition and misaligned self evaluations are detrimental to effective self managed learning which ultimately negatively affects individual performance. On the other hand, high level of meta-cognition improves individual performance by allowing them not only to promote capabilities they possess but also aware about those capabilities they do not posses (Baddareen, Ghaith, & Akoura, 2015). Unfortunately, students are not well aware of such effective learning strategies due to which they face repetitive failures. Therefore, we cannot neglect the role of teachers and instructors in the study process of students. Basically teachers teach students how to select, monitor and utilize suitable strategies through their own preferred teaching styles.

According to Callahan, Clark, and Kellough (2002) teachers must teach a wide variety of learning strategies to students and they have to modify their teaching styles. Grasha (1996) defined teaching style in terms of various elements that are well demonstrated by the teachers in every teaching-learning moment- characteristics, beliefs, instructional practices, roles, and behavior. It was found that teaching styles as well as self efficacy of teachers had positive influence on students' outcomes (Goldhaber, 2002; Good & Brophy, 2003). Teachers are not only reactors to motivational patterns of their students which they had before entering in their classrooms but also act as active socialization agents motivating students to learn and achieve their goals (Brophy, 1986). Zeebs (2004) indicated that academic performance can be accelerated by the alignment of students' learning styles with the teacher's teaching style. Numerous researches show that teachers play an important role in bringing about student achievement in every educational setting (Alexander & Fuller, 2005; Goldhaber, 2002; Sanders, 1998, 2000) but still there is a need to assess the effect of teaching styles on students' learning strategies and study habits. Scrugs (1985) suggested that teachers can help students in the cultivation of meta-cognitive strategies by directly teaching such strategies.

Rationale of the Study

It is quite evident from literature review that not only students' meta-cognitive strategies but also teachers' teaching styles influence academic outcomes. However, research addressing influence of meta-cognitive strategies on study habits in the presence of teaching styles remains limited. In fact, there are numerous researches related to effectiveness of metacognitive strategies on academic achievement but little is known about simultaneous influence of metacognitive strategies and teaching styles on study habits. Primary concern of all educationists is to provide students undeniable reasons to be remained in schools, knowledge of cognitive science to boost their learning, and teachers who are efficient enough in creating such learning environment which not only open minds of students to think critically but also enables them to be participative members of society. In order to fulfill these objectives, there is a need to investigate study process and learning environment of students. Present study proves to be significant as it explores moderating effect of four teaching styles (authoritarian, democratic, laissez faire, and indifferent teaching style). Besides this, fewer researches evaluated the students' perception of teaching styles (Chang, 2010; Munir & Rehman, 2016) and how they influence their study habits. So this research study not only expands knowledge of metacognition, teaching styles and study habits in existing literature but also suggests strategies to enhance academic performance of students.

Objectives
- To study the relationship between metacognitive awareness and study habits in university students.
- To examine the moderating role of different teaching styles in relationship between metacognitive awareness and study habits in university students

Hypotheses
- Regulation and knowledge about meta-cognitive strategies are positively related to study habits in university students.
- Perceived democratic, authoritarian, laissez faire, and Indifferent teaching style work as moderator between meta-cognitive awareness and study habits in university students.

Method

Research Design

Cross-sectional research design was used.

Sample

The sample was comprised of 160 students (80 males and 80 females) of age range 18 to 24 year (*M*=22, *SD*=3.08). The data was collected from some colleges and universities of Islamabad and Rawalpindi in Pakistan through convenient sampling technique.

Assessment Measures

Meta-cognitive Awareness Inventory (MAI). To measure meta-cognitive awareness strategies of students, meta-cognitive awareness inventory MAI (Schraw & Dennison, 1994) was used. MAI consists of 52 items rated on five point rating scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). High score reflects greater repertoire of meta-cognitive awareness strategies. It consisted of two main components meta-cognitive knowledge and meta-cognitive regulation. Knowledge of cognition subscale consisted of 17 items with the high score of 85 indicating high meta-cognitive knowledge having Cronbach's alpha reliability.76. Regulation of meta-cognitive knowledge subscale consists of 35 items where high score of 175 indicates greater control on meta-cognitive knowledge having Cronbach's alpha reliability .80. In present study the overall scale reported .88 of alpha reliability.

Study Habits Inventory (SHI). Study Habits Inventory (Wrenn, 1941) was used to determine study habits of students in different ways like, to identify study weaknesses, to allow individual students to see particular study habits, for clinical study and individual counseling and for students own information about their readiness for study. It consists of 32 items rated on three point rating scale ranging from 1 (Rarely or never true) to 3 (Often or always true). In present study this scale reported .91 of alpha reliability.

Teaching Style Questionnaire (TCQ). Teaching Style Questionnaire is a 29-iteminstrument that assesses students' perceptions of their teachers' teaching styles (Chen, 2008). The instrument is divided into four categories: democratic (11 items), authoritarian (9 items), laissez faire (5 items), and indifferent teaching styles (4 items). Each

category reflects one type of teacher behavior. Respondents answer items using a 5-point scale ranging from "never" to "always". The highest score on a category indicates the most frequently perceived teaching style. The reliability coefficient was found to be .93. The reported alpha values of each teaching style were democratic=.78, authoritarian= .80, laissez faire= .80, and indifferent=.79.

Procedure

Participants were approached after seeking approval from their institutions. All participants of the study were informed about the purpose and significance of the study. They were assured that their responses would be kept confidential and anonymous and used only for the purpose of research. Participants were handed over booklet of questionnaires including Meta-cognition Awareness Inventory (MAI), Study Habits Inventory (SHI) and Teaching Style Questionnaire (TSQ) in order to assess their level of meta-cognition knowledge and regulation abilities, study habits and learning strategies. Verbal instructions were also provided to respondents along with written directions to respond questionnaires. All statistical analyses were performed using Statistical Package for Social Sciences (SPSS 20.0) and results were reported accurately.

Results

Pearson product moment correlation analysis was run to see the relationship between metacognitive awareness, teaching styles and study habits in university students (See Table 1).

Table 1

Relationship Between Meta-cognitive Awareness, Teaching Styles and Study habits in University Students (N=200)

Variable	2	3	4	5	6	7
1. Meta-cognitive knowledge	.72**	.69*	-.73**	.78**	-.75	.81*
2. Meta-cognitive Regulation		.56**	-.71*	.85**	-.71	.73*
3. Democratic teaching style			-.79**	.68*	-.84	.67*
4. Authoritarian teaching style				-.75**	.71	-.82*
5. Laissez faire teaching style					-.84**	.83*
6. Indifferent teaching style						-.63*
7. Study habits						

*p< .05. **p< .01.

Table 1 showed meta-cognitive knowledge and meta-cognitive regulation are positively related with Democratic teaching style, Laissez faire teaching style and Study habits in university student. However negative relationship of meta-cognitive knowledge and meta-cognitive regulation with authoritative teaching style was also revealed. Results also showed that authoritative and indifferent teaching styles were negatively related with study habits.

To examine the moderating role of different teaching styles in relationship between metacognitive awareness and study habits in university students, regression analysis was conducted as preliminary analysis to determine the effect of meta-cognitive awareness on study habits (See Table 2).

Table 2

Hierarchical Regression Analyses Predicting Study Habits from Meta-cognitive Knowledge and Meta-cognitive Regulation in University Students (N=200)

Predictors	Model1 B	Model 2 B
Constant	33.23*	33.57*
Meta-cognitive Knowledge	.73**	.79**
Meta-cognitive Regulation	.69**	.63*
R^2	.32	.57
F	57.39**	56.89**
ΔR^2		.25
ΔF		.50

*$p< .05$. **$p< .01$.

Table 2 showed the effect of meta-cognitive knowledge and meta-cognitive regulation on study habits. There are two predictor variables (meta-cognitive knowledge and meta-cognitive regulation) which have an effect on outcome variable (study habits). Meta-cognitive knowledge and meta-cognitive regulation are explaining 32% to 57% variance in study habits.

Moderation through hierarchical regression analysis was carried out to see the effect of teaching styles on relationship between meta-cognitive awareness and study habits. An interaction between the predictor variable (meta-cognitive awareness) and moderator variable (teaching styles) was studied for an outcome variable (study habits) that

may change the direction of the relation between the two variables. The issue of multi-colliniarity was addressed by centering the mean of sample for variable scores and then the relevant interaction term was computed. After computing the interaction terms, multiple regression analysis was conducted to investigate the moderation.

Table 3

Moderation through Hierarchical Regression Indicating Interaction Effect of Perceived Democratic Teaching Style and Meta-Cognitive Awareness on Study Habits in University Students (N=200)

Predictors	Model1	Model 2
	B	*B*
Constant	27.37*	28.57*
Meta-cognitive Knowledge	.67**	.69**
Meta-cognitive Regulation	.62*	.62*
Democratic teaching style	.37**	.39**
Meta-cognitive Knowledge× perceived Democratic teaching style		.53*
Meta-cognitive Regulation× perceived Democratic teaching style		.52*
R^2	.33	.49
F	57.67**	56.73**
ΔR^2		.16
ΔF		.94

*$p< .05$. **$p< .01$.

Table 3 shows the moderating effect of perceived democratic teaching style in relationship between meta-cognitive awareness having two components meta-cognitive knowledge and meta-cognitive regulation and study habits. The interaction effect of meta-cognitive knowledge and perceived democratic teaching style and the interaction effect of meta-cognitive regulation and perceived democratic teaching style has significant moderating effect along with explaining 33% to 49% variance in relationship with study habits, $\Delta R^2=.16$.

Figures 1 showed that at all levels of democratic teaching style, components of metacognitive awareness including metacognitive knowledge and regulation have significant positive relationship with study habits. With the increasing level of democratic teaching style, metacognitive knowledge and regulation shows stronger effect on study habits.
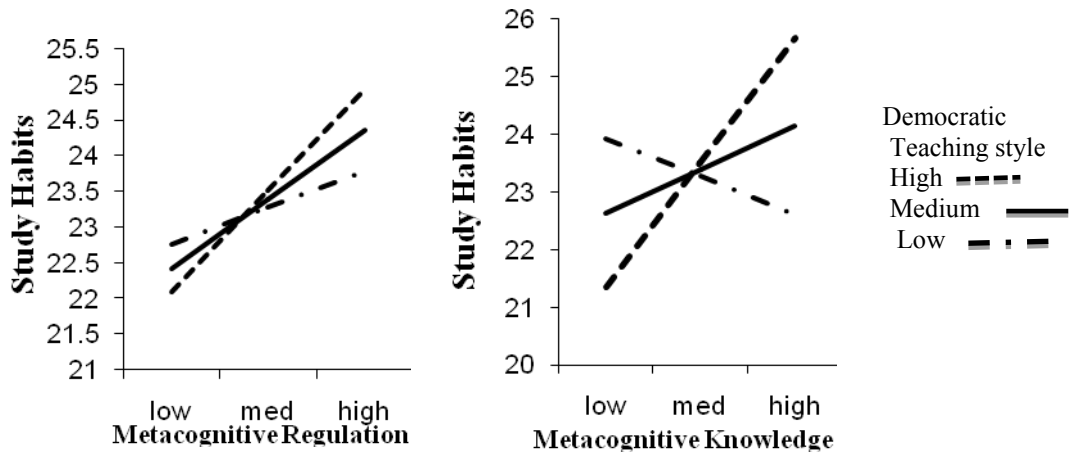
Figure 1. Interaction effect of metacognitive awareness and democratic teaching style on study habits in university students

Table 4
Moderation through Hierarchical Regression indicating interaction Effect of Authoritarian Teaching Style and Meta-Cognitive Awareness on Study Habits in University Students (N=200)

	Study Habit	
	Model1	Model 2
Predictors	*B*	*B*
Constant	25.36*	31.33*
Meta-cognitive Knowledge	.42**	.45**
Meta-cognitive Regulation	.63*	.64*
Authoritarian teaching style	.28	.28
Meta-cognitive Knowledge× perceived Authoritarian teaching style		.18
Meta-cognitive Regulation× perceived Authoritarian teaching style		.11
R^2	.12	.17
F	55.43	52.32
ΔR^2		.05
ΔF		.31.

*p< .05. **p< .01.

Table 4 shows the moderating effect of perceived authoritarian teaching style in relationship between meta-cognitive awareness having two components meta-cognitive knowledge and meta-cognitive regulation and study habits. The interaction effect of meta-cognitive knowledge and Perceived authoritarian teaching style and the interaction effect of meta-cognitive regulation and perceived authoritarian teaching style has non-significant moderating effect along with explaining 12% to 17% variance in relationship with study habits, $\Delta R^2 = .05$.

Table 5

Moderation through Hierarchical Regression indicating interaction Effect of Laissez Faire Teaching Style and Meta-Cognitive Awareness on Study Habits in University Students (N=200)

	Model1	Model 2
Predictors	*B*	*B*
Constant	28.32*	29.57*
Meta-cognitive Knowledge	.36**	.39**
Meta-cognitive Regulation	.52*	.52*
Laissez faire teaching style	.17**	.19**
Meta-cognitive Knowledge× perceived Laissez faire teaching style		.13*
Meta-cognitive Regulation× perceived Laissez faire teaching style		.12*
R^2	.23	.47
F	45.67**	43.73**
ΔR^2		.30
ΔF		.19

*$p< .05$. **$p< .01$.

Table 5 shows the moderating effect of perceived laissez faire teaching style in relationship between meta-cognitive awareness having two components meta-cognitive knowledge and meta-cognitive regulation and study habits. The interaction effect of meta-cognitive knowledge and perceived laissez faire teaching style and the interaction effect of meta-cognitive regulation and perceived laissez faire teaching style has significant moderating effect along with explaining 23% to 47% variance in relationship with study habits, $\Delta R^2 = .30$.

Figure 3 reflect that at all levels of Laissez faire teaching style, components of metacognitive awareness including metacognitive knowledge and regulation are significantly positively related with study

habits. With the increasing level of Laissez faire teaching style, effect of metacognitive knowledge and regulation on study habits is increasing.
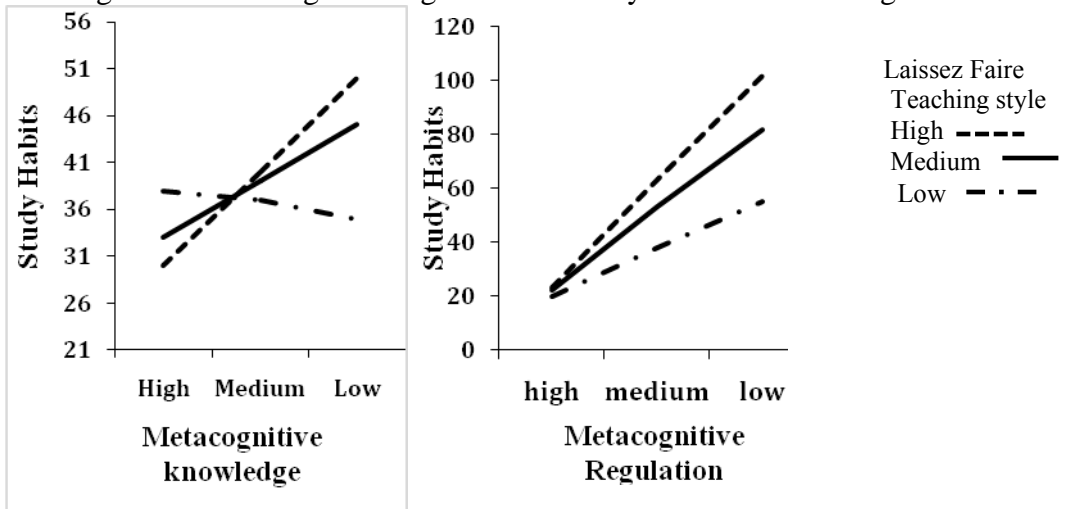

Figure 1. Interaction effect of metacognitive awareness and Laissez faire teaching style on study habits in university students

Table 6

Moderation through Hierarchical Regression indicating interaction Effect of indifferent Teaching Style and Meta-Cognitive Awareness on Study Habits in University Students (N=200)

	Model1	Model 2
Predictors	*B*	*B*
Constant	32.28*	32.57*
Meta-cognitive Knowledge	.57**	.59**
Meta-cognitive Regulation	.62*	.62*
Indifferent teaching style	.27	.27
Meta-cognitive Knowledge× perceived Indifferent teaching style		.19
Meta-cognitive Regulation× perceived Indifferent teaching style		.17
R^2	.02	.09
F	51.32	51.73
ΔR^2		.07
ΔF		.41

*p< .05. **p< .01.

Table 6 shows the moderating effect of perceived Indifferent teaching style in relationship between meta-cognitive awareness having two components meta-cognitive knowledge and meta-cognitive regulation and study habits. The interaction effect of meta-cognitive knowledge and perceived indifferent teaching style and the interaction effect of meta-cognitive regulation and perceived indifferent teaching style has non-significant moderating effect along with explaining 2% to 9% variance in relationship with study habits, $\Delta R^2 = .07$.

Discussion

The foremost goal of educationists and researchers is to enhance the academic achievement of students. Therefore, for years, they have been trying to explore different methods for the advancement of the whole learning processes. Almost all factors related to school curriculum, parents, socioeconomic status and classroom settings has been analyzed but less attention has been paid to the students' learning strategies and study habits. Ineffective study habits can be transformed with the help of various learning strategies to effective ones which not only enhance academic achievement but also make the learning process quite easier. Basically, learning is a transactional process, where both instructor and learner act as equal partners. It means that, in order to improve learning process, there is a need to do research on strategies related to both teachers and students. So, the objective of the current study is to identify the effect of teaching strategies and students' metacognitive awareness strategies on students' study habits.

Findings of current study revealed positive relationship between regulation of metacognitive strategies and study habits. Metacognitive regulation strategies are the set of those activities which are related to control or regulation of one's thinking (Oxsoy, 2008). Metacognitive regulation strategies include planning; monitoring and evaluating one's learning or thinking (Veenman, Van Hout-Wolters, & Afflerbach, 2006). It means that study habits can be influenced by the way one controls his knowledge or thinking with the help of various activities like planning, monitoring and evaluation. One of the main assumptions among all theories of metacognition is the mutual correlation of knowledge and regulation of cognition (Flavell, 1979; Jacobs & Paris, 1987). This positive correlation can't be developed if there is any flaw in the knowledge of cognition. Since the process of regulation of metacognition becomes severely affected if the knowledge about metacognition proves to be wrong. Knowledge or beliefs in one's own cognitive resources and

his awareness about what to do in particular situation is better be referred to as knowledge about metacognitive strategies. Therefore, present study also assessed the significance of knowledge about metacognitive strategies in the modification of study habits. Results of current study showed that knowledge about metacognitive strategies had positive relationship with study habits. In other words, the more the knowledge one has about metacognitive strategies, the more effective study habits he has. Consistent with the results of the study conducted on Turkey fifth grade students reflecting significant relationship between metacognition and study habits (Ozsoy, Memis, & Temur, 2009).

Teaching style is recognizable set of classroom behaviors which are related to and reflected by the instructor. The selected teaching style is perceived as the functional behavior of the instructor's educational philosophy (Conti & Welborn, 1986). Research showed that the most significant factor observed in the learning process is the extent and quality of interaction between teacher and student in the classroom and beyond. Therefore, present study aimed to analyze the moderating effect of various teaching styles on the relationship between students' metacognitive knowledge and regulation of metacognitive strategies and study habits. As teaching styles has four types so moderating effect of all four styles of teaching was assessed on the relationship between students' metacognitive strategies and study habits.

Findings of the current study revealed that students' perceived authoritarian teaching style has no significant moderating effect on the relationship between students' metacognitive knowledge/regulation strategies and study habits. According to Chen (2008), authoritarian teachers are used to express authority, establish class rules and stipulate consequences for violation of such rules. Goss and Ingersoll (1981) suggested that authoritarian teacher implement fixed, inflexible, and autocratic control. Such teachers dominate over students but domination is reserved and is not directed at the positive personal growth of students. Due to this reason, we might say that authoritarian teaching style is not moderating the relationship between students' metacognitive knowledge/regulation strategies and study habits.

Second teaching style is democratic which is quite flexible as compared to authoritarian teaching style. Though democratic teachers set firm expectations for students' behavior but they are responsive to numerous needs of their students. They give freedom to their students to make decisions regarding teaching and learning environment (Chen,

2008). In line with the findings of previous researches, finding of current study showed that students' perceived democratic style significantly moderated not only the relationship between students' metacognitive knowledge and study habits but also relationship between metacognitive regulation and study habits. It clearly demonstrates that democratic teaching style which gives freedom to students in making decisions about their learning environment plays an important role in the development of metacognitive strategies and effective study habits among students.

Third teaching style is Laissez Faire Teaching Style and teachers who display such style are considered as not only caring and nurturing but also encouraged independent learning (Chen, 2008). Present study findings showed that students' perceived Laissez Faire teaching style significantly moderated the relationship between students' metacognitive knowledge strategy and study habits. Current study also demonstrated that students' perceived Laissez Faire teaching style significantly moderated the relationship between students' metacognitive regulation strategy and study habits. Laissez Faire teacher establishes few rules and he may not be as much consistent in enforcing them (Wong & Wong, 2001). They give freedom to students to do what they like (Santrock, 2014). So we can say that freedom in decision making might be assisted in improving metacognitive strategies and study habits of students. But it is further need to be explored as laissez Faire teaching style rarely set expectations for students so it's quite difficult to improve their study habits and learning strategies.

Current study also demonstrated that students' perceived indifferent teaching style was not significantly moderated the relationship between students' metacognitive knowledge/regulation strategies and study habits. Teachers having indifferent teaching style show more concern towards their own personal work and rarely set rules to regulate student's learning experiences (Chen, 2008). In other words, it can be said that they consumed less efforts in building effective learning strategies and study habits among students.

In a nut shell, we can conclude that by the improvement of metacognitive strategies of students, effectiveness of study habits can also be enhanced. As learning is considered as transactional process therefore both learner and teachers play an important role in bringing positive change in the whole study process. With the help of democratic teaching style, the effect of students' metacognitive strategies on their study habits can be boosted. Present research also suggests that laissez faire teaching style might serve an important role in the development of

healthy study habits through metacognitive strategies among students. On the other hand, authoritarian and indifferent teaching styles show no significant contribution in the growth of effective study habits and metacognitive strategies among students. It must be suggested in light of present study that in order to improve learning strategies and study habits of students, teachers must assess their teaching styles with respect to various instructional settings in which they are going to operate. To enhance metacognitive strategies, teachers should encourage students to plan, control and evaluate their own learning (Oxford, 2002).

Limitations. Present study proves to be effective not only by expanding knowledge related to metacognition, study habits and teaching styles but also suggesting way to improve study habits. But there are certain limitations that need to be considered. Findings related to students' utilization of metacognitive strategies were based on students' self-report, thus we can't be as much certain that whether they are engaged in such strategies in reality or they are showing socially desirable behavior. Secondly, convenient sampling technique has been utilized to collect sample for the present study so generalizability of the findings might be limited.

Future Directions. To enhance generalizability of current findings, it is recommended to replicate present study through random sampling technique, and collect data of students belonging to different socioeconomic status, field of study, achievement level, private and government educational institutions. As Present study is based on students' perception of teaching style, so it is advised to investigate in future research actual teaching styles used by teachers.

Implications. Through this study, we can better analyze effect of students' perception of teaching style and actual teaching style used by teachers on learning strategies and study habits of students. It is also advisable to collect data through interview method as it gives detailed information.

References

Alexander, C. D., & Fuller, E. (2005). Effects of Teacher Qualifications on Student Achievement in Middle School Mathematics in Texas. *Paper Presented at the American Educational Research Association Annual Meeting.*

Baquiran, L. A. (2011). Study Habits and Attitudes of Freshmen Students: Implications for Academic Intervention Programs. *Journal of Language Teaching and Research*, *2*(5), 1116-1121.

Baddareen, A.G., Ghaith, S., & Akour, M. (2014). Self-Efficacy, Achievement Goals, and Metacognition as Predicators of Academic Motivation, *Procedia - Social and Behavioral Sciences, 191*(1)*,* 2068-2073

Blake, W. S. (1954). Does Compulsory Training help Students on Probation. *Personal Guidance Journal, 33*(2)*,* 94-96.

Boekaerts, M., & Niemivirta, M. (2000). *Self-regulated learning: Finding a balance between learning goals and ego-protective goals.* In Handbook of self-regulation (pp. 417-450). Academic Press.

Brophy, J. (1986). Classroom management techniques. *Education and Urban Society, 18*(2), 182-194.

Cerna, M. A., & Pavliushchenko, K. (2015). Influence of Study Habits on Academic Performance of International College Students in Shanghai. *Higher Education Studies*; 5(4), 42-55. Doi:10.5539/hes.v5n4p42

Chen, Y. C. (2008). *An investigation of the relationships between teaching style and studies achievement in Miaoli Jianguo Junior High School* (Unpublished master's thesis). Hsuan Chuang University, Miaoli, Taiwan.

Callahan, J., Clark, L., & Kellough, R., (2002). *Teaching in the middle and secondary schools* (7th ed.). Columbus, OH: Merrill Prentice-Hall.

Conti, G., & Welborn, R. (1986). Teaching learning styles and the adult learner. *Lifelong Learning*, *9*(8), 20-24.

Crede, M. & Kuncel, N. (2008). Study habits meta-analysis. *Perspectives on Psychological Science, 3*(6), 425-453.

Devellis, R. F. (2012). *Scale development: Theory and applications*. Thousand Oaks, CA: Sage.

Dornyei, Z. (2007). *Research methods in applied linguistics: Quantitative, qualitative and mixed methodologies*. Oxford: Oxford University Press.

Efklides, A. (2006). Metacognition and affect: What can metacognitive experiences tell us about the learning process? *Educational Research Review, 1*(1)*,* 3-14.

Flavell, J. H. (1979). Metacognition and cognitive monitoring: A new area of cognitive developmental inquiry. *American Psychologist, 34*(10), 906-911.

Goldhaber, D. (2002). The mystery of good teaching: Surveying the evidence on student achievement and teachers' characteristics. *Education Next, 2*(1), 50-55.

Good, T. L., & Brophy, J. (2003). *Looking in the classroom.* Boston: Allyn & Bacon.

Goldhaber, D. (2002). The Mystery of Good Teaching: Surveying the Evidence on Student Achievement and Teachers' Characteristics. *Education Next*, 2(1), 50-55.

Goss, S. S., & Ingersoll, G. M. (1981). Management of Disruptive and Off-Task Behaviors: Selected Resources. Washington, DC: ERIC Clearinghouse on Teacher Education.

Grasha, A. F. (1996). *An integrated model of teaching and learning style: In Teaching with Style: A Practical Guide to Enhancing Learning by Understanding Teaching and Learning Styles.* San Bernardino, California: Alliance Publishers.

Iiskala, T., Vaurus, M., Lehtinen, E., & Salonen, P. (2011). Socially shared meta-cognition of dyads of pupils in collaborative mathematical problem-solving processes, *Learning and Instruction, 21,* 379-93.

Jacobs, J. E., & Paris, S. G. (1987). Children's meta-cognition about reading: Issues in definition, measurement, and instruction. *Educational Psychology, 22*(3-4), 255–278.

Kohli, A. (1977). *The importance of Study Habits and how to Enhance Individual Learning? The Educational Reforms.* Cambridge University Press.

Moghadam, M. F., & Cheraghian, B. (2009). Study habits and their relationship with academic performance among students of Abadan School of Nursing. *Journal of Medical Education Development Center, 6*(1), 21-28.

Mooney, E. S. (2002). Development of a middle school statistical thinking framework. *Mathematical Thinking and Learning, 4*(1), 23-63.

Nagaraju, M. T. (2004). *Study Habits of Secondary School Students.* New Delhi. Discovery Publishing House.

Okpala, A. O., Okpala, C. O., & Ellis, R. (2000). Academic effort and study habits among college students in principles of macro-economics. *Journal of Education for Business, 75*(4), 219-224.

Oxford, R. (2002). Language learning strategies. In R. Carter and D. Nunan (Eds.), *The Cambridge guide to teaching English to speakers of other languages* (pp. 166-172). Cambridge: Cambridge University Press.

Ozsoy, G. (2008). Meta-cognition. *Journal of Turkish Education Science, 6*(4), 713-740.

Ozsoy, G., Memis, A., & Temur, T. (2009). Meta-cognition, Study habits and attitudes. *International Journal of Elementary Education, 2*(1), 154-166.

Sanders, W. L. (2000). Value-added assessment from student achievement data: opportunities and hurdles Create National Evaluation Institute July 21, 2000. *Journal of personnel evaluation in education, 14*(4), 329-339.

Schraw, G., & Dennison, R. S. (1994). Assessing metacognitive awareness. *Contemporary Educational Psychology, 19*(4)*,* 460-475.

Scruggs, T. E., Mastropieri, M. A., Monson, J., & Jorgenson, C. (1985). Maximizing what gifted students can learn: Recent findings of learning strategy research. Gifted *Child Quarterly, 29*(4), 181-185. EJ 333 116.

Veenman, M. V., Van Hout-Wolters, B. H., & Afflerbach, P. (2006). Metacognition and learning: Conceptual and methodological considerations. *Metacognition and learning, 1*(1), 3-14.

Wong, H. K. & Wong, R. T. (2001). *An effective teacher: the First days of school*. New York: Harry, T. Wong Publications Inc.

Wrenn, C. C. (1941). *Study-habits Inventory* [Manual]. Stanford, CA: Stanford University Press

Zeeb, M. S. (2004). *Improving student success through matching learning and teaching styles* (Master's thesis). University of Phoenix, USA.