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Need Assessment for Integrating Self-Regulation Practice in Teaching and Learning of English at Secondary School level in Islamabad, Pakistan

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Abstract

This research attempts to assess the current knowledge and practices of students and teachers regarding the use of Self-Regulated Learning (SRL) in urban secondary schools of Islamabad. In the context of secondary school English learning, the study specifically examines the use of SRL strategies employed by low-achieving students in their learning endeavours and the role of teachers in promoting SRL among their students. It is a mixed-methods approach that combines qualitative data from structured interviews with quantitative evaluation through a rubric-based scoring system. A total of 40 low-achieving students and 20 English teachers from 10 randomly selected schools participated in the study. The low achievers scored poorly across all six SRL domains, showing significant deficiencies in using SRL strategies. Teacher interviews indicated that while lesson planning was somewhat effective, there were notable gaps in providing guidance for homework and guidance for improving students' performance. These findings emphasise the need for targeted interventions to enhance SRL among low-achieving students and highlight the importance of professional development for teachers to support student self-regulation better. This study calls for comprehensive SRL integration into student learning strategies and teacher training to improve academic outcomes in English learning at the secondary level in Islamabad.

Keywords

English language learning
 Low-achieving students
 Secondary schools
 Self-regulated learning
 Teacher practices

INTRODUCTION

The Social Cognitive Theory (SCT) represented by Bandura in the 1960s provided the groundwork for self-regulation theory (as discussed by Bandura, 2001). Self-regulation, according to Albert Bandura, is the process by which people manage their emotions, thoughts and behaviours to meet predetermined goals or standards. He underlined how crucial self-regulation is for directing behaviour and supporting individual development and adaptation. Self-regulation, according to Bandura, is the ability to set meaningful goals, monitor progress towards the take, and adjust strategies to achieve desired outcomes. The importance of self-regulation in academic success is supported by extensive research (McClelland & Wanless, 2012). Self-regulation encompasses various skills including, setting specific, achievable goals, planning, monitoring of progress, controlling distractions, problem-solving, and self-evaluation of one's performance. These components are integral to fostering self-reflection, self-awareness, and emotional control, ultimately leading learners towards the realization of success in academic settings (Ozhiganova, 2018; Pahuriray, 2021). Poor self-regulation skills lead to a lack of focus that further affects academic performance badly (Pahuriray, 2021). To succeed in school, according to Masten and Coatsworth (1998), is based on the significance of setting specific goals, planning, monitoring and self-evaluation. They also emphasise memorization skills. These skills are not only predictors of academic performance but also distinguish between high achievers and low achievers.

Current education practices in Pakistan rely on traditional teaching methods. The dropout rate is high at the primary level so the enrolment rate is low at the secondary level. In Pakistan, there are over 29.9 million adolescents aged 10 to 16 years, but only 10.95 million, or 37.91%, are enrolled in secondary education across different levels (middle, high, and upper secondary schools). This leaves approximately 18 million adolescents, or 62%, out of school (Farooq & Kai, 2017). Completion rates serve as indicators of educational quality. Pakistan's completion rate at the lower secondary level stands at 46%, lower than Bangladesh (56%), Nepal (61%), and India (76%). Similarly, at the upper secondary level, Pakistan lags with a completion rate of 20%, compared to Nepal (42%), Maldives (90%), and India (35%). These lower completion rates highlight challenges within schools and factors outside of school that discourage students from finishing their studies.

Criticism of the assessment system centres on its inability to evaluate higher-order learning effectively. There's growing distrust in the accuracy of grades or marks awarded, as they often don't align with students' demonstrated skills in higher education (Ahmed et al., 2021). The 2017 policy recommends enhancing teacher training to develop critical thinking skills among students and modifying the assessment system to measure these skills accurately. The policy also advocates for activity-based teaching methods, with corresponding adjustments in teacher training (Khushik & Diemer, 2018). Based on the policy suggestion, the Federal Board prepared a syllabus according to student learning objectives (SLO). This new SLO-based syllabus discourages the use of textbooks and focuses on developing specific skills in students. These skills cannot be developed through the traditional teaching styles and rote memorization. So now students need those learning skills that align with the new curriculum and assessment standards. Students need to be an independent motivated learner to achieve the learning objective. So here come the self-regulation skills that are required for all students at the secondary level to succeed in examinations and to continue their pursuit of higher education.

This research study attempts to evaluate the current knowledge and practice of students and teachers regarding self-regulation skills in federal schools of Islamabad Capital Territory (ICT) and to gauge the readiness and necessity for targeted Self-Regulated Learning (SRL) interventions. This research focused on the need assessment for the intervention of SRL practice in learning English at the secondary school level. By examining students' and teachers' current practices and needs, the study seeks to highlight areas for improvement and inform future interventions aimed at fostering SRL in English language learning at the secondary school level.

Statement of Problem

SRL has been shown to enhance academic performance, but its integration into the classroom remains minimal. Current teaching methods in Pakistani secondary schools primarily focus on rote memorization and teacher-centred approaches, which do not foster the development of SRL skills in students. Furthermore, teachers often lack the training and strategies to effectively implement SRL practices. Therefore, to suggest SRL-based interventions that can enhance English language learning outcomes, it is necessary to evaluate the degree to which SRL is used by both teachers and students.

Objectives of the Study

- To examine the role of teachers in promoting SRL among students
- To examine the SRL strategies of low achievers

LITERATURE REVIEW

In educational research, SRL has emerged as a key idea, especially at the secondary school level because students are expected to move to higher education after this phase. In higher education, students are expected to assume greater responsibility for their education. SRL is the skill that helps students plan, monitor, and evaluate their performance in their educational endeavours (Zimmerman, 2000). Research has consistently found that SRL is considered essential for improving academic performance, enhancing motivation, and lowering dropout rates. Numerous research studies highlight the positive correlation between SRL and academic achievement. Zimmerman (2000) emphasized that students who practice self-regulation (SRL) perform better than those who don't because it increases learning depth and efficiency. In particular, the cyclical model of SRL developed by Zimmerman, which comprises forethought, performance, and self-reflection, shows how continuous engagement with one's learning process fosters higher-level thinking and deeper learning outcomes. Pintrich (2004) further developed this idea by proposing that SRL is closely linked to motivation, which, in turn, influences academic success.

According to Pintrich's framework, which incorporates the cognitive, motivational, and behavioural components of SRL, students are more likely to succeed academically if they establish clear learning goals, track their progress, and modify their strategies as needed. Recent studies have placed a significant

emphasis on how SRL impacts student retention. Studies have shown that strong SRL skills are linked to a lower dropout rate at the school level. According to Zimmerman (2002), students who are self-regulated are more resilient in the face of challenges, which helps them persist through difficult academic situations.

Institutions can increase student retention by fostering SRL, which gives students the confidence to take responsibility for their learning and overcome obstacles. Furthermore, Panadero (2017) emphasized that SRL is especially crucial in online learning settings where students need to be more independent. Online learners who are adept at self-regulation can manage their time in a better way and they remain motivated, thus reducing the likelihood of disengagement and dropout. In secondary education, where students are expected to manage their learning more independently, SRL is especially important for academic success. This review examines effective strategies for promoting SRL in secondary school settings, drawing from previous research. Goal setting is a fundamental aspect of SRL. According to Zimmerman (2008), setting specific, attainable goals enhances students' motivation and focus, leading to improved academic outcomes. Schunk (2003) emphasizes the importance of goal setting in promoting self-efficacy and persistence in learning. Self-monitoring involves tracking one's own learning processes and outcomes. Zimmerman (2002) claims that effective self-monitoring enables students to evaluate their progress and modify their learning strategies as needed.

There exist several gaps in the literature, despite the established benefits of SRL. The positive outcomes of SRL are highlighted in many studies highlight, however, fewer explore the specific mechanisms through which SRL enhances critical thinking skills. Dinsmore et al., (2008) suggest that there is a need for more longitudinal studies to examine how SRL practices impact critical thinking over time. Another area of consideration is that much of the existing research is based on Western educational contexts, which leaves a significant gap in understanding how these findings translate to diverse educational settings globally. Even though the research landscape remains underdeveloped, the application of SRL in Pakistan has garnered increasing attention in recent years. Research shows that the importance of SRL is getting more recognition in improving educational outcomes in Pakistani educational settings (Khan et al., 2020). Research shows that numerous Pakistani students struggle with self-regulation. Many studies highlight key educational challenges in Pakistan, which range from limitations in critical thinking skills due to excessive rote learning, to the failure to foster creative thinking and SRL. Inadequate teacher training and a lack of coordination in educational reforms further exacerbate these problems.

According to Hussain et al., (2023), students to rely on rote memorization due to insufficient guidance from teachers. This practice of students further hinders the development of critical and creative thinking skills. Furthermore, a study on creative thinking in Pakistani public schools by Fazal et al., (2023) discovered that the curriculum did not adequately encourage creative thinking and that teachers lacked the skills needed to foster creativity. To enhance students' creative abilities, the study suggested that teacher training, resource allocation, and curriculum improvements should be prioritized. The importance of equipping students with learning strategies is highlighted by Iqbal et al., (2010) to develop students' independence as strategic learners. Bakar and Ali (2017) also underlined the necessity of addressing deficiencies in self-regulation among students and implementing targeted interventions to promote SRL. Children's learning needs are not being sufficiently met by pre-service teacher training programs and in-service workshops, according to Khadim et al., (2021). Additionally, teachers are not adequately trained in interactive teaching techniques, pre-service and in-service training are not coordinated, and there is a dearth of opportunities for ongoing professional development. Extensive research is needed to evaluate the effectiveness of SRL interventions in various educational contexts and to identify best practices for fostering SRL among Pakistani students.

In conclusion, the literature highlights that SRL is crucial for improving academic outcomes. It also fosters motivation and enhances critical thinking skills. However, the integration of SRL into secondary education in Pakistan remains limited despite these advantages. The prevailing reliance on rote learning in schools hinders the development of higher-order cognitive skills. Furthermore, pre-service and in-service teacher training programs are not adequately aligned, and teachers frequently lack the professional development and training necessary to apply SRL strategies (Shah et al., 2011). In educational

research, the importance of SRL is receiving more acknowledgement, particularly for improving academic performance. However, there exists a significant gap in the literature regarding its practical application in Pakistani secondary schools. This study underscores the need for targeted interventions to promote SRL at the secondary level, such as through comprehensive teacher training, curriculum reforms, and resource enhancement. These interventions are crucial to equip both teachers and students with the necessary tools to foster SRL, ultimately improving educational outcomes in Pakistan.

METHODOLOGY

This study employs a mixed-methods approach. It combines qualitative data from structured interviews with quantitative evaluation through a rubric-based scoring system. A sample of teachers and students from federal schools in Pakistan was selected to participate in the interviews. A sample of 10 schools was randomly selected from a total population of 19 schools. Then a sample of 40 students (girls) was selected randomly. From each school, 4 students were selected randomly. These learners were interviewed about their learning strategies. Low-achieving students were selected based on their academic records, which were compiled from multiple data sources that tracked their performance over long periods. In the second stage, 20 teachers were randomly selected from 10 schools. All teachers, who were sampled, were teaching English subjects to secondary school-level students. These teachers were interviewed about their understanding of self-regulation and their teaching methods. Interviews were conducted with both students and teachers to assess their perspectives and practices regarding SRL. Students shared their experiences with SRL, while teachers discussed their instructional strategies, homework guidance, and support for low-performing students. Each response was rated using a predefined rubric (scored from 0 to 3) to ensure consistent and objective evaluation. The overall scores for each participant were calculated to evaluate the extent of their SRL practice.

Research Design

This research adopts a descriptive research design, focusing on describing and quantifying the current state of SRL practices in secondary schools. By using structured interviews and a rubric-based scoring system, the study seeks to systematically assess the extent to which SRL is practised by students and incorporated by teachers. The design allows for both qualitative insights into SRL behaviours and quantitative evaluation of the responses, providing a comprehensive view of SRL practices in the context of English language learning.

Instrument of the Study

Interview Protocol for Students

An assessment of Students' learning strategies to evaluate the students' current learning strategies related to self-regulation. This assessment aimed to uncover existing gaps and areas for improvement, informing the design and implementation of a targeted intervention to enhance self-regulation skills among low-achieving students in English. This assessment is made through the structured interview protocols for students.

SRL Interview Schedule

Six components of SRL were identified based on Zimmerman theory. The components were taken from theory, and the author developed the interview questions, and marking criteria. This instrument was validated through experts' reviews. In addition, a single category of non-self-regulated learning behaviour was included. Definitions of each category are given in Table and examples of each category derived from literature are also presented in Table 1. The first question was asked generally in which student can give an example from his homework task, assignment, or test. If students don't respond then by providing an example only one learning context was focused in question. It was the completion of homework assignments and tasks. Students were asked to indicate the methods they used to complete their writing assignments or other homework tasks.

In sequence, firstly Student was asked a general question in which they could choose any learning context ranging from reading comprehension, vocabulary, creative writing and grammar. For six components of self-regulation (Goal setting, planning, monitoring, controlling, problem-solving and self-evaluation) one question was asked. The researcher established predefined criteria to evaluate students' self-regulation skills from the statements and responses of students during the interview. These criteria were derived from specific evidence-based actions and responses that indicate the presence or absence of each skill. The strategies and their definition is given in the form of illustrative statements. The 6 statements show self-regulation and the last category where statements showing non-self-regulated learning.

Table 1
SRL Strategies

Categories of SRL Strategies	Definition
Goal Setting	Statements indicating student setting of educational goals or subgoals, "I set a goal for writing an essay with 250 words and that has three paragraphs: introduction, main body, conclusion"
Planning	Statements indicating planning for sequencing, timing, and completing activities related to those goals, e.g., "I set time duration to complete the task" "I brainstorm ideas, write down on page, plan to write two examples from real life, plan to include a topic sentence and concluding sentence in each paragraph" etc.
Monitoring	Statements indicating the checking of my work, that I fulfil all requirements of task that I set in my plan, e.g., "Am I following the outline, did I fulfil all requirements of each paragraph, are my spellings correct etc.
Controlling	Statements indicating student-initiated efforts to select or arrange the physical setting to make learning easier, and controlling emotions of anger, excitement, grief, boredom, tiredness etc., e.g., "I isolate myself from anything that distracts me." "I turn off my mobile phone so I can concentrate on what I am doing." "I prioritize my goals and tasks over my emotions". "I take pauses or short breaks to control my emotions."
Problem-Solving	Statements indicating student-initiated efforts to modify strategies when previous ones were not working, e.g., when memorizing a word: "If repetition of the word and spelling did not work, I used sentence making, or finding antonyms and synonyms". "When encountering problems in understanding something, I consult with peers, teachers, or parents, or try to explore other sources such as the library or internet."
Self-Evaluation	Statements indicating student-initiated evaluations of the quality work or achievement of their pre-set goal, e.g., "I check over my work to make sure I did everything that I planned to do."
Non-Self-regulated Learning	Statements indicating learning behaviour that is initiated by other persons such as teachers or parents and all unclear verbal responses, e.g., "I just do what the teacher says".

Interview Protocol-For Teacher

An assessment of teacher's instructional Practices was performed to evaluate the current teaching practices related to teaching self-regulation. The interview protocol was developed by the researcher. It was validated through experts' reviews. Interviews were conducted to gain insights into teachers' instructional methods and their approaches to student guidance in homework tasks and guidance to poor students. The interview protocol consisted of three main questions, each designed to elicit detailed responses about specific teaching and guidance strategies. In Instructional Techniques questions teachers were expected to describe their methods for teaching lessons, including examples of how they engage students and check for understanding. In Homework Guidance, teachers were expected to explain their approaches to guiding students on homework and assignment tasks. In guidance for Struggling Students, Teachers were expected to provide details on how they support students who achieve poor academic results. The Responses were evaluated using a rubric with the scores ranging from 0-3 which shows poor to excellent answers. The answers that provided little or no clear explanation or understanding were scored "0" poor. The answers showing deep understanding and application of strategies were scored "3" excellent.

RESULTS & FINDINGS

Assessment is performed to evaluate the current teaching practices and student learning strategies related to self-regulation. The assessment is made through the structured interview protocols for students

and teachers separately. The students (N=40) were interviewed for their use of learning strategies. Teacher (N=20) were interviewed for their use of instructional strategies. In the data collection and evaluation process firstly, responses were collected by conducting interviews with the students. During these interviews, students provided their perspectives and insights, which form the basis of the evaluation. Once all responses are gathered, each response is rated using a predefined rubric ranging from 0-3. This rubric outlines specific criteria for rating the quality and content of the responses, ensuring consistency and fairness in the evaluation process. Finally, the scores assigned to each response are summed up to derive a total score for the SRL of students. These scores reveal how each student responded regarding their self-regulation in learning.

Similarly, responses were collected by conducting interviews with the teachers. Three questions were asked regarding their use of instructional strategies, their guidance in homework tasks, and their guidance for low-performing students. Once all responses are gathered, each response is rated using a predefined rubric ranging from 0-3. Finally, the scores assigned to each response are summed up to derive a total score for instructional practices.

Table 2

Low Achievers use of learning strategies (N=40)

	Mean	SD
Goal setting	0.45	0.51
Planning	0.40	0.50
Monitoring	0.15	0.37
Controlling	0.20	0.41
Problem-Solving	0.30	0.47
Self-Evaluation	0.25	0.44

Low-achieving students were assessed about their use of SRL strategies including Goal Setting, Planning, Monitoring, Controlling, Problem Solving, and Self-Evaluation, using a 0 - 3 scale (0 indicates Poor and 3 indicates Excellent). Results showed that the low achievers scored less than 0.5 on average across all domains, revealing significant deficiencies in their use of all six strategies. These findings highlight the urgent need for focused interventions to enhance SRL among low achievers.

Table 3

Teachers' Instructional Practices (N=20)

	Mean	SD
Lesson planning,	1.05	0.69
Guidance for homework tasks	0.65	0.67
Guidance for improving performance	0.55	0.69

Teachers were assessed in three key areas: Lesson Planning, Guidance for Homework Tasks, and Guidance for Improving Performance, using a scale from 0 (poor) to 3 (highest). They were rated on a scale from 0 (poor) to 3 (highest). The results showed that the teachers scored an average of 1.05 in Lesson Planning, 0.65 in Guidance for Homework Tasks, and 0.55 in Guidance for Improving Performance. These scores indicate that while teachers have a basic level of understanding in lesson planning, there are significant deficiencies in providing effective guidance for homework and guidance for improving performance. The findings highlight the need for teachers' professional development programs aimed at enhancing teachers' skills in these critical areas.

The data from students' Interviews revealed that low achievers scored less than 0.5 on average across all domains, highlighting the significant deficiencies in the use of all six strategies. These findings highlight the need for specific interventions to improve SRL among low achievers, and to support better academic performance. Interviews with teachers revealed that the teachers scored an average of 1.05 in Lesson Planning, 0.65 in Guidance for Homework Tasks, and 0.55 in Guidance for Improving Performance. These results show low proficiency in lesson planning but significant deficiencies in providing effective guidance for homework and guidance for improvement of performance. The need for a professional development program focusing on these critical areas seems crucial.

Discussion

This research aimed to assess the need for integrating SRL practices into the teaching of English at the secondary school level in Islamabad, Pakistan. The findings showed significant gaps in SRL practices among students and teachers. Low-achieving students scored below 0.5 on average across all SRL domains. This finding is consistent with previous research by Zimmerman (2002) that shows that students with underdeveloped SRL skills tend to perform poorly academically. Similarly, interviews with teachers revealed low scores in key areas, including lesson planning (1.05) and guidance for homework (0.65), indicating an absence of effective strategies for promoting SRL in students. These results align with Schunk and Zimmerman (2008), who found that many teachers lack the training to support SRL effectively in the classroom. The study highlights the importance of focused interventions to improve SRL among students, especially those with lower academic performance, as well as the need for professional development programs that equip teachers with the skill to better integrate SRL strategies into their teaching. This finding is also consistent with previous research, showing that teacher training in SRL strategies can improve both teaching strategies and student outcomes (Schunk & Ertmer, 2000; Seker & Dincer, 2016). Overall, these findings indicate that incorporating SRL practices in both student learning and teacher instruction is essential for improving academic achievement, especially in English language learning.

CONCLUSION

This study highlights the urgent need to reconsider teaching and learning practices to better support low-achieving students. While global research consistently shows the positive effect of SRL on academic performance and motivation, there is a clear gap in the literature when it comes to exploring the need for integration of SRL in the Pakistani educational context. The study revealed both students and teachers are less likely to practice SRL. Students seem unaware of basic SRL skills, so due to the absence of these skills, students face significant barriers to improving their academic outcomes. These findings highlight the need for further research in this area and indicate a clear need for targeted interventions to enhance educational outcomes, especially for low achievers who are struggling academically. This study also reveals that teachers lack the knowledge to effectively support SRL in the classroom. Teachers need more professional development, particularly in areas like lesson planning, guiding homework tasks, and guidance for improving students' performance. The targeted interventions to improve students' SRL skills and teachers' instructional practices, can significantly improve educational outcomes.

Recommendations

Interventions for Low-Achievers

This study identifies notable deficiencies among low-achieving students in their use of SRL strategies. To address this issue, the SRL training programs should be initiated by the education sector for these low-achieving learners. The focus of these programs should be the key SRL skills, including goal-setting, planning, monitoring, controlling, problem-solving and self-evaluation. Through the teaching of this skill, low achievers' performance can be significantly increased.

Teachers' Training for Teaching of SRL

This study indicates that teachers seem not to be adequately equipped to foster SRL in their students. There should be more studies of the same kind conducted to understand the needs of students and teachers regarding the practice of SRL skills in Islamabad's secondary schools. Additionally, professional development programs that focus specifically on teaching SRL strategies are needed for teachers. Teachers should receive training in how to integrate SRL techniques into their lesson plans, provide guidance on homework, and offer support to low-performing students. This will result in a learning environment that is more student-centred, allowing students to take greater ownership of their learning.

Further Research on SRL in Pakistan

There are a limited number of studies focusing on SRL in Pakistan. So, in this scenario, future research should explore how SRL practices can be effectively integrated into Pakistani schools. Moreover, studies should investigate the possible barriers to SRL implementation, especially in public schools. In addition, studies can focus on designing SRL interventions for improving students' outcomes in English and in other subjects.

Competing Interest

The authors reported no potential conflict of interest.

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REFERENCES

- Ahmed, Z., Khan, S., Saeed, S., & Haider, S. I. (2021). An Overview of Educational Policies of Pakistan (1947-2020). *Psychology and Education Journal*, 58(1), 4459-4463.
- Bakar, Z. A., & Ali, R. (2017). Regulation of learning: From the perspective of male students in Pakistan. *Regulation*, 8, 13-2017.
- Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual Review of Psychology*, 52(1), 1-26.
<https://doi.org/10.1146/annurev.psych.52.1.1>
- Dinsmore, D. L., Alexander, P. A., & Loughlin, S. M. (2008). Focusing the conceptual lens on metacognition, self-regulation, and self-regulated learning. *Educational Psychology Review*, 20, 391-409.
<https://doi.org/10.1007/s10648-008-9083-6>
- Farooq, M. S., & Kai, Y. T. (2017). A Review of Pakistan School System. *Journal of Education and Practice*, 8(4), 97-101.
- Fazal, K., Sarwar, U., Nargiza, N., Khan, B., & Qi, Z. (2023). Creative thinking in Pakistani public schools: A qualitative study of teachers' perspective and practices. *Creative Education*, 14(4), 637-657.
<https://doi.org/10.4236/ce.2023.144042>
- Hussain, S., Hafeez, A., Zaman, F. U., & Seerat, S. S. (2023). Why quality of education is low at the secondary level in Pakistan: A group discussion. *International Research Journal of Management and Social Sciences*, 4(4), 190-205.
- Iqbal, H. M., Sohail, S., & Shahzad, S. (2010). Learning and study strategies used by university students in Pakistan. *Procedia-Social and Behavioral Sciences*, 2(2), 4717-4721.
<https://doi.org/10.1016/j.sbspro.2010.03.756>
- Khadim, M., Qureshi, N., & Khan, A. M. (2021). Content Analysis of National Education Policy 2017: Educational

- Exertions towards Education for Sustainable Development in Pakistan. *Journal of Educational Research* (1027-9776), 24(1).
- Khan, Y. M., Shah, M. H., & Sahibzada, H. E. (2020). Impact of Self-Regulated Learning Behavior on the Academic Achievement of University Students. *FWU Journal of Social Sciences*, 14(2), 117-130.
- Khushik, F., & Diemer, A. (2018). Critical analysis of education policies in Pakistan: A sustainable development perspective. *Social Science Learning Education Journal*, 3(09), 01-16.
- Masten, A. S., & Coatsworth, J. D. (1998). The development of competence in favorable and unfavorable environments: Lessons from research on successful children. *American Psychologist*, 53(2), 205.
<https://doi.org/10.1037/0003-066x.53.2.205>
- McClelland, M. M., & Wanless, S. B. (2012). Growing up with assets and risks: The importance of self-regulation for academic achievement. *Research in Human Development*, 9(4), 278-297.
<https://doi.org/10.1080/15427609.2012.729907>
- Ozhiganova, G. V. (2018). Self-regulation and self-regulatory capacities: Components, levels, models. *RUDN Journal of Psychology and Pedagogics*, 15(3), 255-270.
- Pahuriray, V. G. M. (2021). Self-Regulating Capacity in Language Learning and English Academic Achievement. *Globus Journal of Progressive Education*, 11(2), 82-86.
- Panadero, E. (2017). A review of self-regulated learning: Six models and four directions for research. *Frontiers in Psychology*, 8, 422.
<https://doi.org/10.3389/fpsyg.2017.00422>
- Pintrich, P. R. (2004). A conceptual framework for assessing motivation and self-regulated learning in college students. *Educational Psychology Review*, 16, 385-407.
<https://doi.org/10.1007/s10648-004-0006-x>
- Schunk, D. H. (2003). Self-efficacy for reading and writing: Influence of modeling, goal setting, and self-evaluation. *Reading & Writing Quarterly*, 19(2), 159-172.
<https://doi.org/10.1080/10573560308219>
- Schunk, D. H., & Ertmer, P. A. (2000). Self-regulation and academic learning: Self-efficacy enhancing interventions. *Handbook of self-regulation* (pp. 631-649). Academic Press.
<https://doi.org/10.1016/B978-012109890-2/50048-2>
- Schunk, D. H., & Zimmerman, B. J. (Eds.). (2008). *Motivation and self-regulated learning: Theory, research, and applications*. Routledge.
- Seker, M., & Dincer, A. (2016). Teacher transformation as a basis for the promotion of self-regulated language strategies. *Literacy Information and Computer Education Journal (LICEJ)*, 7(1), 2206-2210.
- Shah, S. M. A., Kiani, K. M., Mahmood, Z., & Hussain, I. (2011). In-service training of secondary level teachers: A follow up of teachers' performance in comparative perspective. *Journal of Education and Practice*, 2(11), 40-50.
- Zimmerman, B. J. (2000). Attaining self-regulation: a social cognitive perspective, in *Handbook of Self-Regulation*, eds M. Boekaerts, P. R. Pintrich, and M. Zeidner (San Diego, CA: Academic Press), 13-40.
- Zimmerman, B. J. (2002). Becoming a self-regulated learner: An overview. *Theory into Practice*, 41(2), 64-70.
https://doi.org/10.1207/s15430421tip4102_2
- Zimmerman, B. J. (2008). Investigating self-regulation and motivation: Historical background, methodological developments, and future prospects. *American Educational Research Journal*, 45(1), 166-183.
<https://doi.org/10.3102/0002831207312909>