NURTURING SELF-REGULATED AND PEER COLLABORATIVE LEARNING SKILLS IN STUDENTS WITHIN ONLINE MODE: EXPLORING A TEACHERS' PERSPECTIVE

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ABSTRACT

The prevalence of online education with the help of advanced digital tools invites universities to foster self-regulated and peer-collaborative learning skills (SRL & PCL) among students. The main objectives of the study were; exploring the insights of teachers for fostering (SRL & PCL) in online learning, tracing difficulties for teachers to stimulate (SRL & PCL), and examining current online teaching practices of teachers that facilitate (SRL & PCL). In-depth interviews were conducted with 20 teachers of public sector universities in Punjab. The suitability & trustworthiness of the interview protocol was confirmed by seeking expert opinion. The qualitative data were analyzed with the help of N-Vivo. The Study concluded that teachers believed (SRL & PCL) skills are immensely needed to nurture SRL and PCL in students in the online teaching-learning process. Some challenging factors for teachers were found to be high in intensity like being un-motivated, having low self-efficacy, peer conflicts, the environment of educational institutions, lack of planning skills, support facilities, unsuitable educational equipment, and lack of orientation towards (ICT) skills. The practices of teachers to facilitate (SRL & PCL) included; the use of motivation and emotional drive, promoting the use of collaborative tools, improving self-talk & feedback, promoting reflective dialogues, and promoting peer sharing and active learning. The study also recommended the ways for teachers to nurture SRL and PCL skills in students within online mode.

Keywords: Online learning, self-regulation, peer collaboration, teachers' perceptions

INTRODUCTION

In the era of knowledge explosion and availability of multiple learning sources, the development of Self-regulation Learning (SRL) & Peer Collaboration (PC) skills are vital requirements for digital learning success. Cho and Shen (2013) stated that digital learning can be extremely challenging and overwhelming for those students who have less self-regulated learning skills. It is important that teachers can help students to adopt SRL & PC skills to succeed in the digital learning environment. Self-regulated Learning (SRL) entails the effort of students to accomplish learning in a systematic manner to attain academic goals (Zimmerman & Schunk, 2011). Different studies explained the construct of "self-regulation" (Azevedo, 2005; Artino, 2009; Cho & Jonassen, 2009; Zimmerman & Schunk, 2011). Self-regulated learning increases academic self-efficacy, goals

orientation, and regulations in different learning contexts (Pintrich, 2004). Those students who have higher intrinsic goal orientation and academic self-efficacy are more successful learners as compared to students having less intrinsic orientation. Furthermore, skilled self-regulated learners regulate and adjust their learning process in learning contexts better than less skilled learners (Pintrich, 1999, 2004; Zimmerman & Schunk, 2011). Further, SRL skill provides better experiences to learners for learning where ones achieve better and is satisfied in a technological environment (Artino, 2008; Greene & Azevedo, 2009). Artino (2008) concluded that task value and academic self-efficacy significantly predict the satisfaction of students within an online mode. Greene and Azevedo (2009) stated that self-regulated learning is connected to students' conceptual knowledge acquisition in web-enhanced courses.

The early concept of social cognition in self-regulated learning (SRL) emphasized the aspects of individual understanding, behavior, motivation, and social context as a component of the triadic process of SRL. Recently, the view on learning has extended the theory and model of SRL to a highly interactive and dynamic learning environment, in which the construction and collaboration of shared knowledge have emerged (Hadwin et. al., 2017). Learners obtain SRL skills in the peer learning process as it provides more chances to learn from each other and to practice self-regulation and self-reflection (Zimmerman, 1989). Ejubovic and Puska, (2019) concluded that SRL has a positive impact on students' achievement and their satisfaction in the institutions of higher education which work within an online mode also. Research literature further discloses that students face difficulties during online mode due to non-practicing SRL skills (Azevedo, 2005). Studies similarly acknowledge SRL as empowering tool to effectively accelerate learning within an online mode (Winters, Greene, & Costich, 2008). This provides enough evidence to conclude that a substantial linkage exists between SRL and learning in an online mode (Broadbent and Poon, 2015).

The prevalence of online education with the help of advanced digital tools invites universities to foster self-regulated and peer-collaborative learning skills (SRL & PCL) among students. Our study aimed at exploring the perspectives of teachers, who were involved in the teaching-learning process within the online mode and how they experienced nurturing self-regulated and peer collaborative learning skills in students at higher education. The objectives of the study were; exploring the insights of teachers for fostering (SRL & PCL) in online learning, tracing difficulties for teachers to stimulate (SRL & PCL), and examining current online teaching practices of teachers that facilitate (SRL & PCL).

RELATED LITERATURE

The association between self-regulation and educational attainment is noteworthy and positive at all learning stages (Boer et.al., 2013; Broadbent & Poon, 2015; Dignath, Buettner, & Langfeldt, 2008; Dignath & Büttner, 2008; Sitzmann & Ely, 2011). Students should be engaged in applying SRL skills for the purpose of effectively attaining self-sufficiency within an online teaching-learning process. Self-regulation refers to students who are actively engaged in their learning on a metacognitive, motivational, and behavioral level (Zimmerman, 2002). It is also identified as a skill for improving academic achievements by allowing students to collaborate with peers and therefore increase motivation to learn within an online mode. Collaboration and metacognition have a good impact on students, implying the importance of social dynamics, particularly when ideas are shared in small groups (Segaran & Hasim, 2021).

Self-regulation has been increasingly used in the academic learning environment as well as other types of learning e.g., cognitive, motor, and social (Boekaerts, Zeidner, & Pintrich, 1999). Schunk & Zimmerman (1998) stated that SR nurtures a high degree of learning autonomy in an online mode. As a result, the development of effective online education necessitates the coordination of external control and the freedom to self-regulate. Prompts are thought to be an important way to promote personalized and flexible learning in online education. For beginner learners, guided pre-reflective prompts work best. Positive encouragement is often enabled by such prompts in internet-mediated learning (Lehmann et al., 2014). Wang et.al., (2013) stated that despite advantages, accomplishment (online learning) setting is highly dependent on a student's ability to participate in the learning process independently and actively. Since the essence of digital learning boosts self-directed and self-reliance (Serdyukov & Hill, 2013). Therefore, it is critical that e-learners as opposed to traditional classroom peers should have the self-generated ability to control, manage, and plan their learning actions (Ally, 2004). In the existing technological era, higher education is transforming the teaching-learning process to provide greater educational equality through improved access and collaboration within the context of lifelong learning. It is a fact that collaborative peer learning within a technology-mediated process encourages critical reflection and self-assessment (Altınay, 2017).

METHODOLOGY

The study used a qualitative exploratory descriptive research approach to meet the objective of the study. This is a widely cited research tradition that has been identified as important and appropriate for research questions set to exploring the who, what, and where of events or experiences, as well as gaining insights from informants about understood phenomena (Kim et al., 2017). The population of the study was teachers of public universities in Punjab. In depth-interviews were conducted with 20 teachers. The tool was discussed with five PhD-qualified experts before final data collection. Based on suggestions given by the experts, questions were revised and finalized. The qualitative data were analyzed with the help of N-Vivo.

RESULTS

Figure. 1 Word Chart Reflecting Teachers' viewpoints

The respondent's utter words "regulation, collaboration, self-ability, emotions, skills, manage, help regulate, understand and knowledge". Reflection of these words shows a positive attitude of the respondents toward promoting self-regulation and peer collaboration among higher education learners.

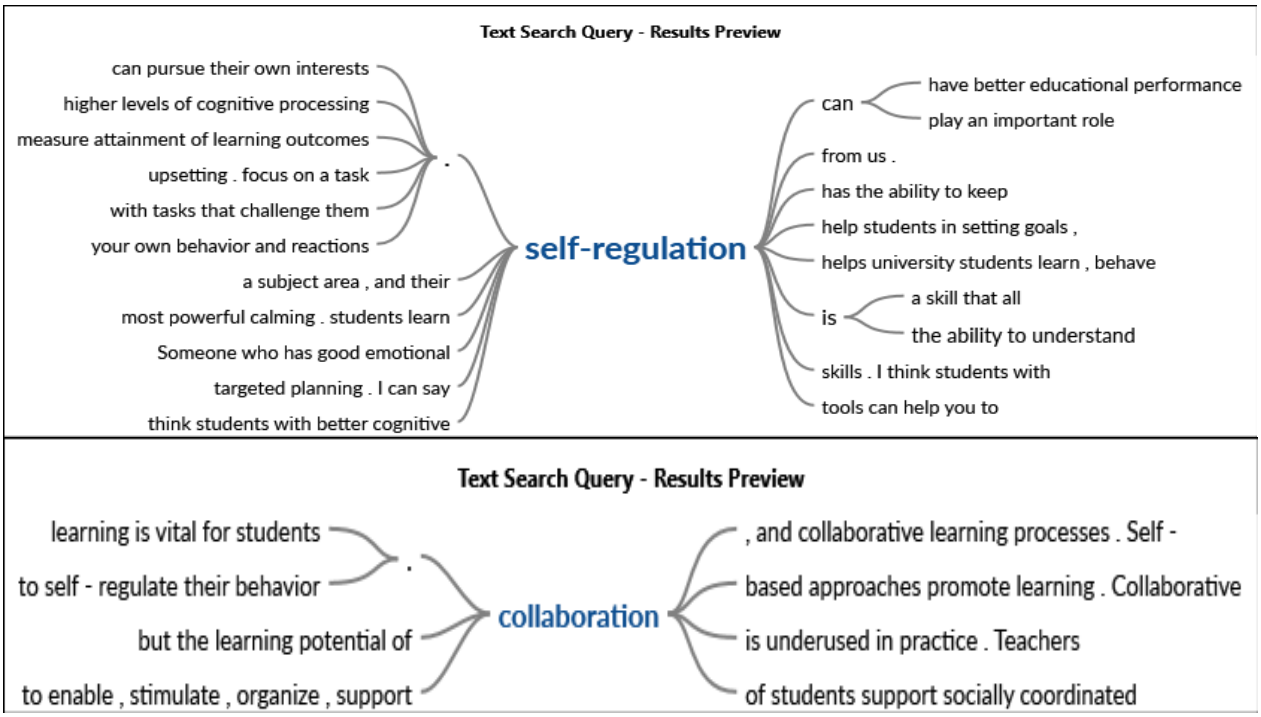

Figure. 2 Text Search Query Chart Depicting Teacher's Opinion

The text search query chart describes the scattered viewpoints of teachers regarding fostering self-regulation and peer collaboration.

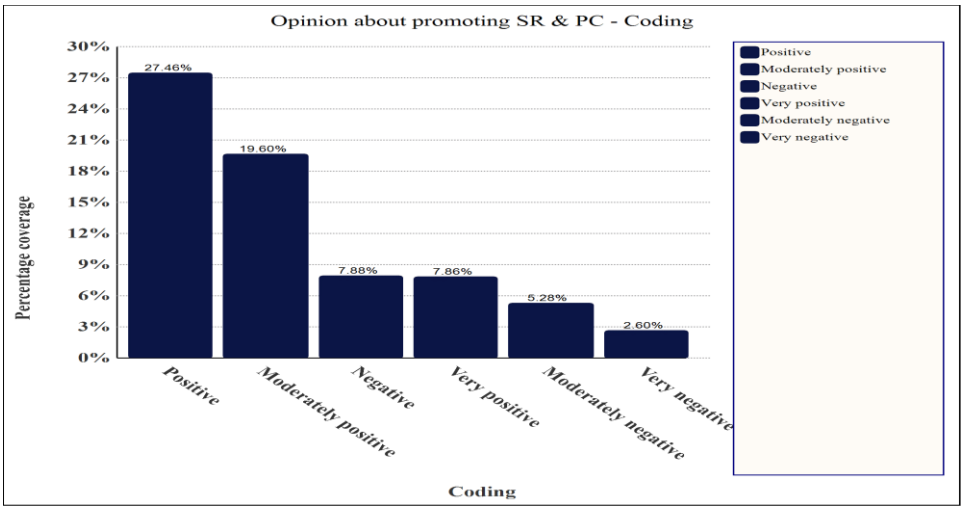

Figure. 3 Sentiment Analysis

The chart shows that the opinion of most teachers regarding promoting SR & PC is very positive and secondly moderately positive. Some teachers show concerns regarding online learning and the use of these skills. Overall results show that most teachers have a positive opinion and are convinced that self-regulation and peer collaborative skills should be promoted in physical classes as well as in online learning situations.

Figure. 4 Word Chart Reflecting Difficulties

The chart shows that most of the respondent's uttered words frequently are "educational environment, poor personal skills, poor skills related to planning, low cooperation from family or peers, lack of interest and motivation". Reflection of flag words reflecting of the respondent towards promoting self-regulation and peer collaboration among higher education learners.

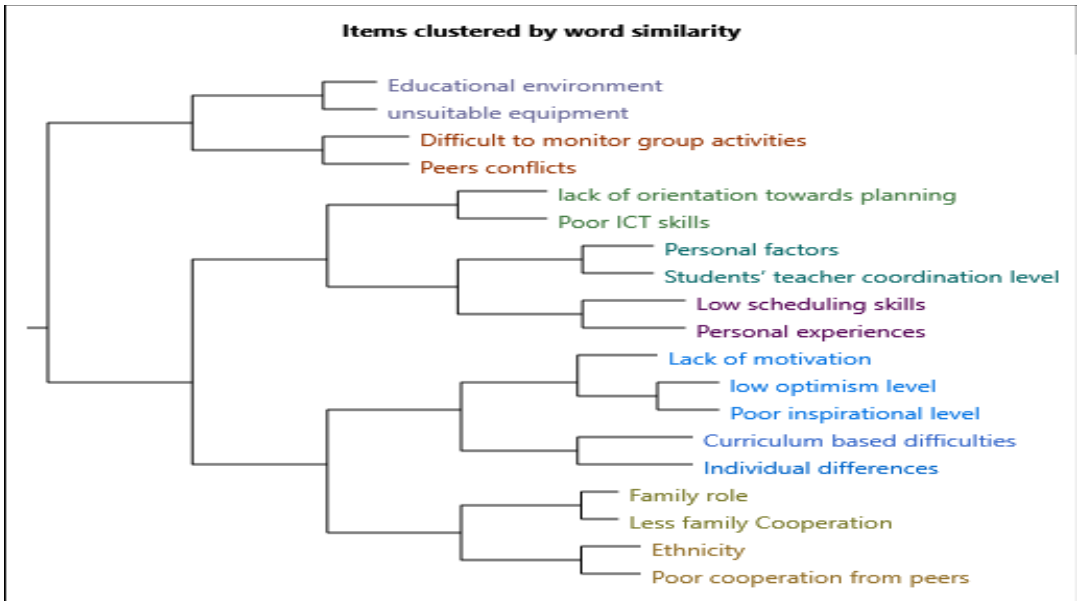

Figure. 5 Cluster Chart Reflecting Difficulties

The words similarity chart also shows the phrases i.e., "educational environment, unsuitable educational equipment, lack of orientation, less family cooperation, curriculum-based difficulties, individual differences, ethnicity, basic skills, personal experiences, low optimism level, low scheduling skills, lack of a defined goal, stress, pessimism, lack of motivation, carelessness and lack of interest".

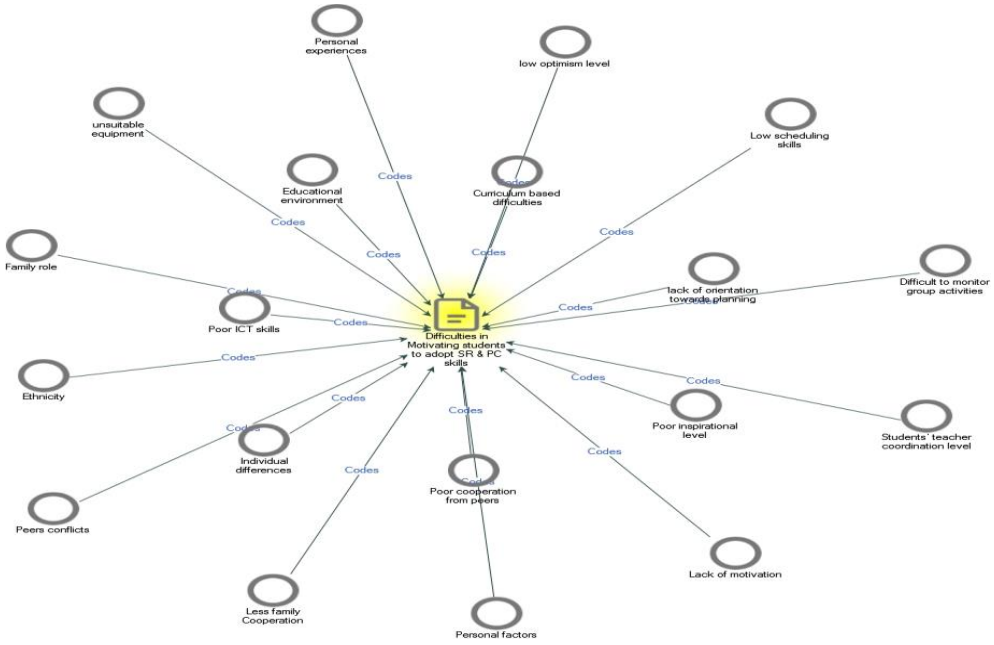

Figure. 6 Diagram Chart Reflecting Difficulties

Diagram spread points with factors from the center, pointing out the severity level of difficulties.

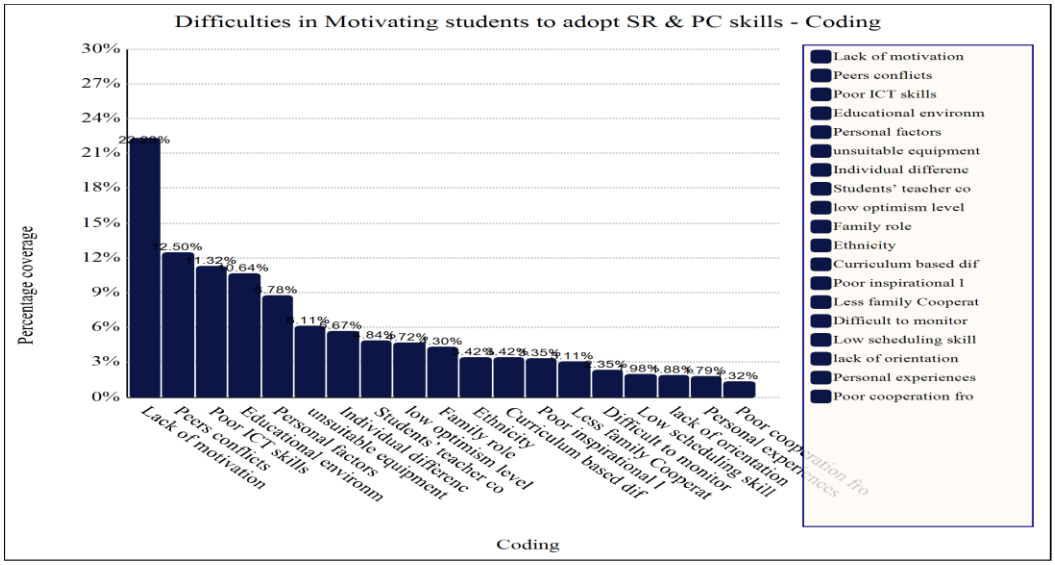

Figure. 7 Bar Chart Reflecting Difficulties

Responses show that teachers face various kinds of difficulties like unfavorable educational environments, unsuitable educational equipment, lack of orientation to ICT skills, less family cooperation, curriculum-based difficulties, ethnicity and individual differences, social, emotional, and motivational factors, poor goals setting skills and low scheduling skills and conflicts among peers' groups.

Figure.8 Word cloud chart Reflecting Practices of Teachers

Chart reflecting most prominent words like "regulation, feedback, practice, focus, team, encourage, discussion, expectations, goal setting, positive behavior, communicate, skills" etc.

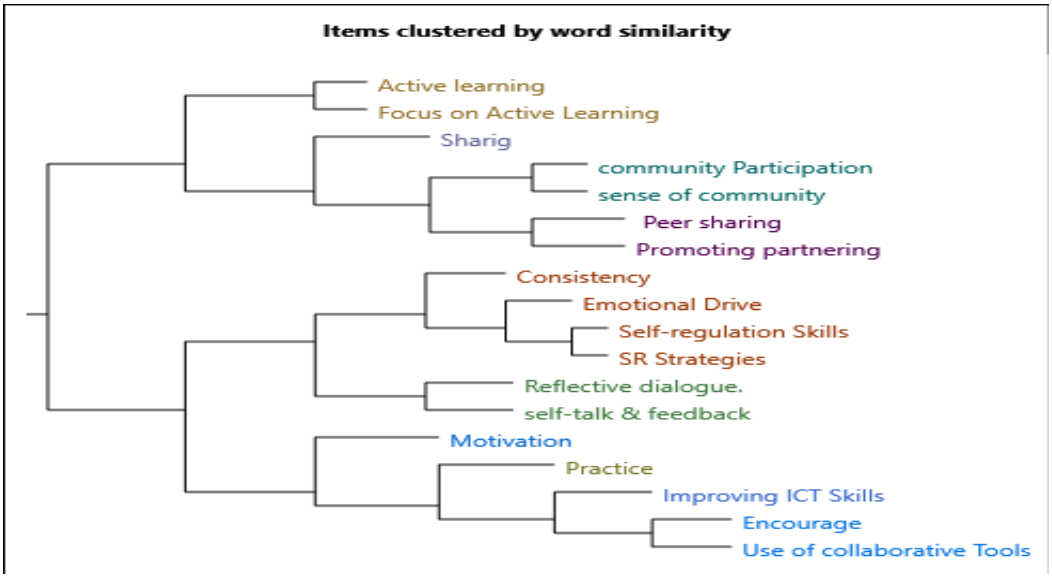

Figure.8 Cluster Chart Reflecting Practices of Teachers

This cluster presentations shows most suggested techniques from down to upwards.

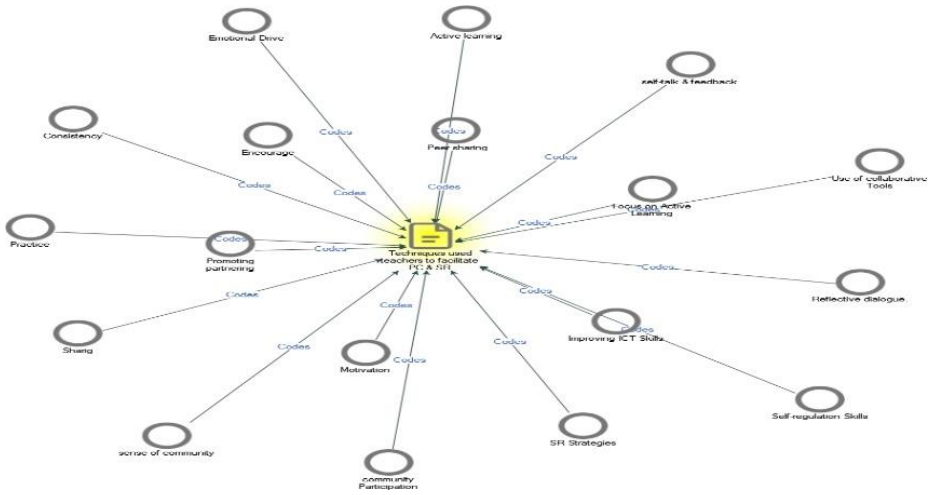

Figure.9 Diagram Chart Reflecting Practices of Teachers

This diagram shows that techniques like "improving ICT skills, motivation, promoting partnering, encouragement, peer sharing focus on active learning, reflective dialogue" are suggested by the teachers to facilitate students to improve self-regulated and peer collaborative learning skills for online learning situations.

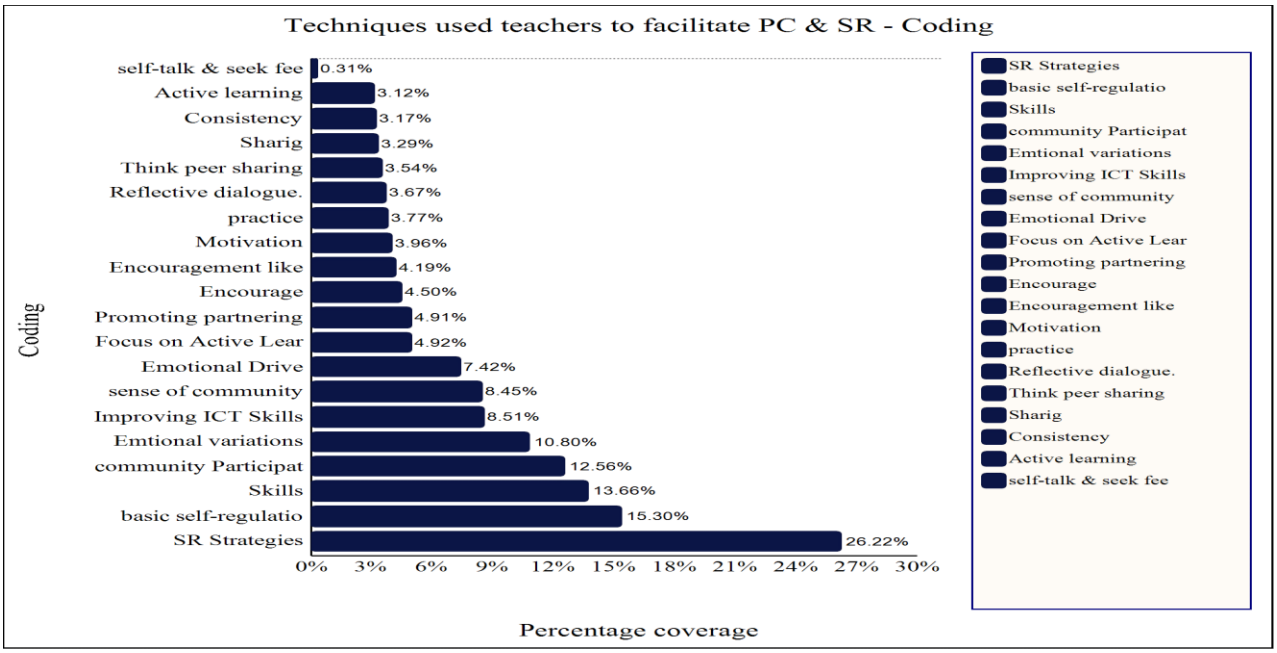

Figure.9 Bar chart Reflecting Practices of Teachers

This chart shows stated techniqes used by the teachers to facilitate students to improve self-regulated and peer collaborative learning skills for online learning situations. The chart shows percentage of responses and level. Percentage wise most used strategies are as use of SR strategies, self-regulation skills, community participation, emotional drive and so on. Other techniques are i.e., use of collaborative tools, encouragement, improving ICT skills, practice, motivation, self-

talk & feedback, reflective dialogue, consistency, promoting partnering, peer sharing, sense of community, community participation, sharing, focus on active learning.

DISCUSSION

Teachers play a vital role in creating an environment that supports student learning. They often do this by supporting student autonomy. By supporting students' choices and interests, educators help students develop personal interest, engagement, and ownership of their work, which helps inspire motivation. To impart motivation to students, teachers face some sort of difficulties. The study found the kinds of difficulties teachers face while motivating students to adopt skills. Study results indicated various factors create difficulties in motivating students to adopt self-regulation and peer collaboration. Some factors are high in intensity like being un-motivated, less self-esteemed and self-efficacy, poor academic record, peer conflicts, educational environment, poor educational planning, support services and educational content, Unsuitable educational equipment and lack of orientation towards planning and (ICT) skills are difficulties that are high in intensity relatively as compare to other factors i.e., Students' teacher coordination level, less family cooperation, poor cooperation from peers, poor inspirational level, difficulty in monitoring group activities, Curriculum-based, individual differences of students, ethnical (language or culture) background of students, basic skills, personal experiences, and low optimism level. The findings are novel and contribute to literature as no study exists in this regard in the literature has similar findings.
Qualitative data results guided that different techniques are being used by the teachers to facilitate students to improve self-regulated and peer collaborative learning skills for online learning situations. Teachers do motivate online learning community participation. Also, they use the emotional drive, promote the use of collaborative tools among students, encourage positive re-enforcers, urge students to improve ICT skills, advise them to do consistent practice, supplement with motivational techniques, improve self-talk & feedback skills, promote reflective dialogue, promote partnering, peer sharing, developing a sense of community, sharing ideas and promote active learning. Pike et.al. (2011) indicated that a link has been found between learning community participation and student engagement. Liew et.al. (2020) found that there was a mediation between engagement and the effects of literacy contexts and emotional self-regulation on reading competence. Hidayanto and Setyady (2014) indicated that collaboration tools facilitate students in completing tasks. Additionally, the existence of collaborative learning also pushes students to use collaborative tools. In addition, there was a positive effect of the use of collaboration tools on team performance (Rahimi and Fathi, 2021). Further, the wikis are an effective Web collaboration tool for mediating and improving students' performance in writing, self-regulation, and self-efficacy.

CONCLUSION

The Study concluded that teachers believed (SRL & PCL) skills are immensely needed in the online teaching-learning process. As per teachers' views, various factors create difficulties for teachers in stimulating students to adopt (SRL & PCL) skills. Students who have better cognitive self-regulation can perform better in higher education by managing their emotions and emotional influences. These skills lead students to become self-directed learners in the online environment. Most teachers stand with the point that collaborative learning is extremely beneficial for exchanging experiences. Some factors were found to be high in intensity like being un-motivated, having low self-efficacy, peer conflicts, the environment of educational institutions, lack of

planning skills, support facilities, unsuitable educational equipment, and lack of orientation towards (ICT) skills. Teachers using practices to facilitate students to improve (SRL & PCL) skills for online learning situations. The practices of teachers to facilitate (SRL & PCL) included; the use of motivation and emotional drive, promoting the use of collaborative tools, improving self-talk & feedback, promoting reflective dialogues, and promoting peer sharing and active learning.

RECOMMENDATIONS

The study recommended that SRL &PCL skills should be promoted in online learning teaching learning process. Identified techniques to motivate students to adopt (SRL & PCL) skills should be communicated through training programs, workshops, and seminars to university teachers. Further studies are invited to address the difficulties faced by teachers.

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