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Attitudes of Secondary School Teachers towards Constructivist Teaching in Sikkim: A Convergent Parallel Mixed-Methods Study

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ABSTRACT

Constructivist approach in teaching emphasises on development and acquisition of concepts among the learners by active construction and meaning making process. This new reform in education demands teachers to detach from traditional practice of knowledge transmission to constructivist teaching where the learners are guided to construct knowledge. This study aims to investigate secondary school teachers' attitude towards constructivist approach in teaching in Gyalshing District of Sikkim. The study has followed convergent parallel design under mixed method approach. A total of 120 secondary school teachers who taught at the secondary level were taken as the sample for the quantitative phase of study while for the qualitative phase 15 teachers were selected from the sample. The quantitative phase of the study was carried out by a descriptive survey method through TASCAT scale. Data for the qualitative phase was collected through a semi structured interview prepared by the researcher. The findings of the study revealed that most of the teachers have favourable attitude towards constructivist approach on teaching. While with deeper analysis on interview findings it could be revealed the teachers understood the general principles of constructivism, but they could not fully grasp its core essence or how to effectively integrate these practices into their teaching. Additionally, several aspects, such as school culture, classroom culture, the structure of the curriculum, and assessment methods were found to have an impact on how teachers put their views into practice in the classroom.

Keywords: Constructivist Approach, Teachers' Attitude, Secondary School Teachers, Practices

Teaching has always been considered as a process of imparting knowledge and skill or giving instructions. However in the last decade this narrow concept of teaching is found to be challenged and the role of a teacher is somewhat reformulated due to new ideas regarding conditions of learning and how learning takes place (Westwood, 2008). The thinking about nature of human learning and the conditions that best facilitates the learning has undergone a significant shift in the field of education. As in psychology, there has been a transition in paradigm of instructional strategies from Behaviourism to Cognitivism and now to Constructivism (Applefield *et al*. 2000). Constructivism proposes that the development and acquisition of concepts among the learners takes place though a meaning making process in which learners engage in constructing individual interpretations of their experiences. It is based on the idea that learners must themselves discover and transform complex information that result from examination, questioning and analysis of task and experiences (Applefield *et al.* 2000).

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The reforms in education demand teachers to detach from traditional practice of knowledge transmission to constructivist teaching where the learners are guided to construct knowledge (Kablan & Kaya, 2014). Teaching should be for construction of knowledge and it takes place when a learner actively connects new ideas to the existing ideas on the basis of activities and materials presented to them (NCERT, 2005). The focus of teachers must be to challenge learners to explore the world's complexity, urge them to experience its richness and inspire them to ask questions and seek their own solutions instead of only focusing on their academic achievement scores (Kim, 2005). An effective teacher understands the ideas, beliefs of their learners and is able to create an environment that allows learners to accommodate or restructure their knowledge structures for new learning. Adopting this approach in real classroom situation can be challenging or teachers therefore changing their attitude and beliefs about knowledge, teaching and learning is crucial to adopt this new approach (Assuah *et al.* 2016).

There exists a gap in understanding the attitude of teachers towards the implementation of constructivist approach. Understanding teachers' attitude is important as it influences their instructional strategies and interactions in classroom. It can also provide crucial insights into the challenges and opportunities that they face with its integration in their classroom. Thus this study aimed to explore the attitude of teachers towards constructivist approach in teaching and examining how teachers incorporate various elements of constructivist approach in their teaching and learning practices in Sikkim.

REVIEW OF RELATED LITERATURE

Several studies have explored teachers' attitudes toward the constructivist approach in various countries, revealing diverse perspectives on its application in teaching. Ahmedi *et al.* (2023) found that teachers in Kosovo had a positive attitude toward the constructivist approach, recognizing its impact on improving student learning outcomes. In Turkey, Ã–nen *et al.* (2018) revealed that science teachers exhibited a positive attitude toward constructivism, particularly those who felt competent in its application. In contrast, Lemma (2021), Jančič and Hus (2017) observed teachers, showed limited awareness and had a negative attitude towards constructivism, relying mostly on traditional methods and preferred frontal teaching despite acknowledging the benefits of constructivism for student learning. Tafrova-Grigorova *et al.* (2012) reported that Bulgarian science teachers favored a mixed approach, combining traditional and constructivist methods, and were open to adopting more constructivist practices.

Teachers in Mizoram, India, had moderate knowledge of constructivism and showed a positive attitude but were inconsistent in applying it in the classroom according to the study conducted by Khaute (2016). Sthapak and Singh (2017) found no significant differences in attitudes towards constructivism based on gender or subject stream, suggesting that teachers across different groups were equally open to its use. However, Parray *et al.* (2021) found that both government and private school teachers in Jammu had similar attitudes, though they lacked a strong dedication to adopting constructivist methods. Lyngdoh (2017) also found that female teachers in Meghalaya had a more favorable attitude toward constructivism, while male teachers showed a more unfavorable attitude. These studies highlight the critical role of teacher attitudes in the successful implementation of the constructivist approach, with a notable variation in attitudes across regions and contexts.

Several studies have also explored the challenges and successes of implementing the constructivist teaching approach. Mengistie and Jirata (2016) found that although teachers had a positive perception of constructivism, their actual practices were minimal due to factors such as lack of teacher dedication, student disinterest, and large class sizes. Similarly, Cetin *et al.* (2014) revealed that in-service teachers had limited understanding of constructivism, and the mismatch between their beliefs and practices was influenced by school culture and curriculum constraints. In studies focused on pre-service teachers, Uzuntiryaki *et al.* (2010) highlighted that teachers' beliefs about constructivism often did not align with their classroom practices. Hajal (2019) and Savasci and Berlin (2012) also found that teachers, despite recognizing the value of constructivism, used traditional teaching methods. Other studies, including those by Haney and McArthur (2002), Aljaberi and Gheith (2018) and Assuah *et al.* (2016)

revealed that while teachers generally believed in the benefits of constructivism, their classroom practices were often more traditional. Chiu and Whitebread (2011) and Temiz and Topcu (2013) found that teachers required more training and time to fully implement constructivist practices, with factors like curriculum structure and teachers' self-efficacy beliefs playing a significant role in shaping their practices. While there is a general support for constructivist approaches among teachers, significant barriers such as lack of training, large class sizes, and curriculum constraints hinder effective implementation. These studies indicate that teacher beliefs and practices need to align more closely for constructivism to be fully realized in classrooms.

RESEARCH QUESTIONS

The study focuses on addressing the following the research questions:

- What is the level of secondary school teachers' attitude towards the constructivist approach?
- Is there a significant difference in attitude based on gender, subject taught, age, and teaching experience?
- How do secondary school teachers describe their incorporation of constructivist elements into their teaching practices?
- How do the quantitative findings on teachers' attitudes towards constructivism converge with or diverge from the qualitative findings on their reported practices and perceived barriers?

HYPOTHESIS

- $H_0$1 There is no significant difference in attitude towards constructivist approach of teachers with respect to gender.
- $H_0$2 There is no significant difference in attitude towards constructivist approach of teachers teaching different subjects.
- $H_0$3 There is no significant difference in attitude towards constructivist approach of teachers with respect to age.
- $H_0$4 There is no significant difference in attitude towards constructivist approach of teachers with respect to teaching experience.

THEORETICAL FRAMEWORK

The constructivist approach to teaching and learning, rooted in the works of Dewey, Piaget, Vygotsky, and Bruner, emphasizes that knowledge is actively constructed through reflection and experience rather than being passively received (Applefield *et al.* 2000). Learners integrate new information with prior knowledge and their beliefs, attitudes, and the learning context shape the depth of understanding. Constructivism highlights how individuals make meaning from experiences and offers guiding principles for pedagogy without prescribing a single method (Bada & Olusegun, 2015). Within this framework, the teacher's role shifts from transmitting information to facilitating environments where students engage in active and meaningful learning (Haney & McArthur, 2002). This study draws upon constructivist theory as a foundation for examining teachers' attitudes toward adopting such approaches in the classroom.

Complementing this perspective, the Theory of Reasoned Action (TRA), developed by Ajzen and Fishbein (1975), explains how behavior is shaped by intentions, which are in turn influenced by attitudes and subjective norms. Beliefs connect actions to outcomes, shaping attitudes as positive, negative, or neutral, while subjective norms represent perceived expectations from significant individuals or groups (Pryor & Pryor, 2009). Since attitudes and norms build upon underlying behavioral and normative beliefs, they directly influence an individual's intention to perform a given behavior (LaCaille, 2013). In the present study, the TRA provides a useful lens to understand how teachers' attitudes, beliefs, and perceived social expectations may influence their willingness to adopt new teaching methods and curricula.

The constructivist approach theory and the TRA form a complementary framework: while constructivism highlights the process of knowledge construction and the role of teachers in facilitating active learning, the TRA explains how teachers' attitudes and social contexts shape their intention to embrace such practices. These two perspectives jointly provide the theoretical framework for analyzing teachers' attitudes toward constructivist approaches in this study.

METHODOLOGY

This study used mixed methods approach. It is a research approach in which the researcher gathers and analyses data, integrate the results, and draws conclusions using both qualitative and quantitative methodologies within a single study (Tashakkori *et al.* 2021). Under mixed methods approach, the study uses convergent parallel design which involves collecting quantitative and qualitative data concurrently, analysed separately and integrating the two databases with an aim of comparing or merging of the results (Creswell & Plano Clark, 2018). Combining two approaches may be better than utilizing just one since it will probably yield deep insights into the studied phenomenon that are not possible to completely understand by either quantitative or qualitative research alone.

Tools

The following tools has been used for the study:

1. Teachers Attitude Scale towards Constructivist Approach in Teaching (TASCAT) for quantitative phase.
2. Semi Structured Interview for qualitative phase.

For collecting quantitative data, the study used Teacher's Attitude Scale towards Constructivist Approach in Teaching (TASCAT). It is a five-point Likert type rating scale, constructed and standardised by Lyngdoh and Sungoh (2017). The tool consists of 40 items which are categorised into 6 dimensions. The first dimension - reflection has 8 items. The second dimension - learning process has 5 items. The third dimension - autonomy-community has 9 items. The fourth dimension - authority-facilitator has 6 items. The fifth dimension - power-empowerment has 6 items. The sixth dimension - evaluation has 6 items (Lyngdoh & Sungoh, 2017). The scale was reported to have a face and content validity and the reliability of the scale was ascertained through Cronbach Alpha reliability test (0.907).

For collecting qualitative data about teachers' beliefs and practices about the constructivist approach in teaching, the study used semi structured interview. The semi structured interview was prepared by the researcher which comprised of six open-ended questions that focuses on obtaining detailed responses on the six dimensions of the TASCAT. Semi structured interview helps in gathering in depth information about how the teachers incorporate the various elements of constructivist approach in their teaching learning practices.

Research Participants

The sample of the present study comprised of 120 teachers of secondary level who were teaching at different government schools in Gyalshing District of Sikkim. 15 teachers from the sample were selected for the semi structured interview. Quota sampling method was used to select sample of the study for quantitative phase. Because quota sampling entails separating the population into distinct strata and then picking the number of participants from each stratum although in a non-random manner, the researcher has utilized it to select the participants for the quantitative phase of data collecting. For selecting the participants to conduct semi structured interview, purposive sampling was utilised.

DATA ANALYSIS

The present study used combination of both quantitative and qualitative data analysis technique. For the descriptive analysis, a measure of central tendency and variability has been used for the description of the obtained data. The mean values obtained on the attitude of teachers towards constructivist approach in teaching have been categorised as Highly Favourable, Favourable, Neutral, Highly Unfavourable and Highly Unfavourable. For the inferential analysis, data has been analysed through parametric tests like t-test and ANOVA. The study used thematic analysis to analyse and interpret the responses of teachers which was obtained through semi structured interview.

ANALYSIS AND INTERPRETATION

This section presents the analysis and interpretation of responses from secondary school teachers, which were collected using the TASCAT scale and a semi-structured interview schedule. The integration of results from both methods have been presented through joint display for a comprehensive understanding.

Analysis of Quantitative Data

This section presents the analysis of quantitative data collected through the TASCAT scale. This section addresses the first and second research questions of the study.

1. Level of Secondary School Teachers' Attitude towards Constructivist Approach in Teaching

The composite scores obtained by the participants for the 40 items of the TASCAT scale have been categorised as different levels of attitude based on the range of scores reported in the tool manual. The percentage of secondary school teachers belonging to the different levels of attitude towards constructivist approach in teaching are given below:

Table 1: Interpretation of the level of Teachers' Attitude towards Constructivist Approach in Teaching

Score Range	Frequency	Percentage	Interpretation
113 and above	36	30%	Highly Favourable
107 to 112	27	23%	Favourable
103 to 106	23	19%	Neutral
97 to 102	16	13%	Unfavourable
96 and below	18	15%	Highly Unfavourable
Total	**120**	**100%**	

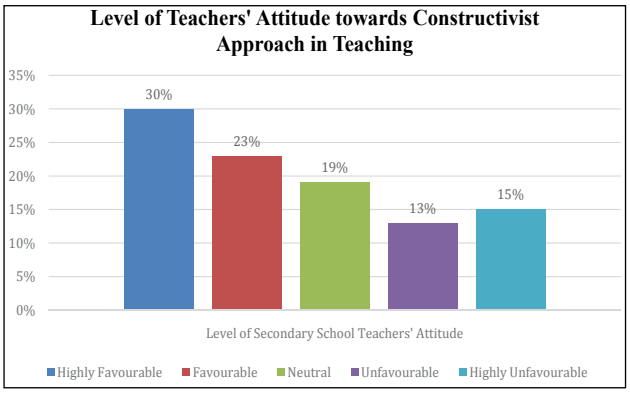

Fig. 1: Descriptive analysis of overall Teachers' Attitude towards Constructivist Approach in Teaching

The majority of teachers reported favourable to highly favourable attitudes. However, nearly 28% reported unfavourable to highly unfavourable attitudes, indicating gaps in adoption. This aligns with findings of Mengistie and Jirata (2016) that although teachers support constructivism, actual practices remain inconsistent.

2. Gender and Teachers' Attitude towards Constructivist Approach in Teaching

To understand the difference of attitude of teachers towards constructivist approach in teaching with reference to their gender, the following null hypothesis has been formulated.

There is no significant difference in attitude of teachers towards constructivist approach with respect to gender.

Table 2: Results of t-test examining the difference in Teachers' Attitude towards Constructivist Approach in Teaching with respect to gender

Dimension	Male (46)		Female (74)		t (118)	P
	M	SD	M	SD		
Reflection	21.5	2.83	21.5	2.73	0.06	0.94
Learning Process	13.6	2.23	14.4	1.9	2.15	0.03*
Autonomy-Community	23.8	3.38	23.5	2.68	-0.62	0.53
Authority Facilitator	15.7	2.33	16.2	2.45	1.25	0.21
Power-Empowerment	15.7	2.65	16	2.23	0.63	0.52
Evaluation	15.2	13.11	15.8	2.57	1.25	0.21
ATCA	105	11.7	108	9.26	1.05	0.29

*$p<0.05$

There was no significant gender difference overall ($p>0.05$). However, on the "Learning Process" dimension, female teachers scored significantly higher ($p<0.05$). This partially supports Lyngdoh (2017), who found female teachers had more favourable attitudes.

3. Subject and Teachers' Attitude towards Constructivist Approach in Teaching

To understand the difference of attitude of teachers towards constructivist approach in teaching with reference to the subject they teach, the following null hypothesis has been formulated (table 3).

There is no significant difference in attitude of teachers towards constructivist approach with respect to subject.

No significant difference was found in overall attitude by subject. However, subject-wise analysis revealed significant variation in *Authority-Facilitator* ($F=2.80$, $p<0.05$) and *Power-Empowerment* ($F=2.56$, $p<0.05$). This suggests that teachers of some subjects

Table 3: Results of one-way ANOVA examining the difference in Teachers' Attitude towards Constructivist Approach in Teaching with respect to subject

Dimension	SST (40)		Science (21)		Math (18)		Language (27)		IT (14)		F (4,115)	P
	M	SD	M	SD	M	SD	M	SD	M	SD		
Reflection	21.8	2.44	21.7	3.83	20.9	2.59	21.1	2.33	21.9	2.89	0.56	0.68
Learning Process	14.4	1.73	14.5	2.2	14	2.38	13.8	1.93	13.6	2.59	0.69	0.60
Autonomy – Community	23.6	2.9	23.6	2.71	24.7	3.37	23.7	2.92	22.2	2.78	1.44	0.22
Authority Facilitator	16.9	2.48	16	2.65	15.6	2.38	15.4	1.93	14.9	2.06	2.80	0.03*
Power-Empowerment	16.9	2.09	15.3	2.1	15.6	2.2	15.5	2.75	15.4	2.62	2.56	0.04*
Evaluation	15.7	2.21	15.7	3.97	16.2	2.23	14.7	3	16	2.42	0.94	0.43
ATCA	109.3	9.36	106.7	12.07	106.9	11.13	104.2	9.25	104.1	10.34	1.237	0.29

*$p<0.05$.

Table 4: Results of one-way ANOVA examining the difference in Teachers' Attitude towards Constructivist Approach in Teaching with respect to age

Dimension	Below 31 Years (52)		31-40 Years (57)		Above 40 Years (11)		*F* (2,117)	*P*
	M	SD	M	SD	M	SD		
Reflection	21.5	2.61	21.5	2.73	21.9	2.73	0.13	0.87
Learning Process	14.2	1.87	14	2.22	14.2	2.27	0.08	0.92
Autonomy- Community	24.2	2.77	23.2	3.14	23.5	2.54	1.80	0.17
Authority Facilitator	15.9	2.26	16	2.65	16.2	1.89	0.06	0.93
Power-Empowerment	15.6	2.4	16.1	2.4	16.4	2.42	0.69	0.50
Evaluation	15.1	3.01	15.8	2.52	16.5	2.98	1.4342	0.24
ATCA	106.6	10.07	106.5	10.67	108.5	9.86	0.1875	0.829

perceive constructivist practices as granting more empowerment and facilitator roles.

4. Age and Teachers' Attitude towards Constructivist Approach in Teaching

To understand the difference of attitude of teachers towards constructivist approach in teaching with reference to their age, the following null hypothesis has been formulated (table 4).

There is no significant difference in attitude of teachers towards constructivist approach with respect to age.

No significant difference was found in attitude of teachers in all the six domains with reference to their age.

5. Teaching experience and Teachers' Attitude towards Constructivist Approach in Teaching

To understand the difference of attitude of teachers towards constructivist approach in teaching with reference to their teaching experience, the following null hypothesis has been formulated (table 5).

There is no significant difference in attitude of teachers towards constructivist approach with respect to teaching experience.

No significant differences were found by teaching experience in overall attitude. However, in the *Evaluation* dimension, teachers with more than 15 years of experience scored significantly higher ($F=3.48$, $p<0.05$), suggesting experienced teachers may better integrate evaluative practices.

Analysis of Qualitative Data

The section addresses the third research question that focuses on the teachers' attitudes towards the constructivist approach and their classroom practices. For exploring the attitudes and practices of the teachers, a semi-structured interview was conducted with six open-ended questions based on the dimensions of the TASCAT scale. One question

Table 5: Results of one-way ANOVA examining the difference in Teachers' Attitude towards Constructivist Approach in Teaching with respect to teaching experience

Dimension	Below 6 Years (55)		6-10 Years (39)		11-15 Years (19)		Above 15 Years (7)		F (3, 116)	P
	M	SD	M	SD	M	SD	M	SD		
Reflection	21.2	2.51	21.4	3.34	22.1	1.84	23.4	2.57	1.73	0.16
Learning Process	14.1	1.9	13.8	2.36	14.7	1.85	14.6	2.07	0.97	0.41
Autonomy-Community	24.2	3.01	22.8	3.09	23.6	2.46	23.9	2.48	1.70	0.17
Authority Facilitator	15.7	2.46	16.2	2.15	16.3	2.83	16.9	2.19	0.84	0.47
Power-Empowerment	15.3	2.31	16.4	2.33	16.5	2.44	16.4	2.7	2.39	0.07
Evaluation	15.1	2.98	15.3	2.61	16.5	2.01	18.1	2.67	3.48	0.02*
ATCA	105.5	10.41	105.9	10.44	109.6	8.89	113.3	9.89	1.82	0.146

*$p<0.05$.

Table 6: Thematic Analysis of Teacher Interview Responses

Question	Themes	Illustrative Quotes	Interpretation
Q1. Have you ever reflected on your teaching practices? If yes please share instances, if no why? Do you think reflecting on your teaching practices improve your teaching? If Yes how? / If NO, why? (Reflection on teaching practices)	Reflection as essential practice; Reflection as situational response	"Reflecting on my teaching practices helps me understand how students learn best." (Language teacher) "When I have doubt… I reflect upon it." (Social science teacher)	Reflection was widely valued but differed in depth and frequency which was habitual for some and situational for others.
Q2. According to you what constitutes of constructivist teaching practices and do you think incorporating constructivist approach in your teaching practices makes the teaching difficult and complicated? (Understanding constructivist practices)	Child-centred pedagogy; Constructivism as knowledge construction; Limited awareness	"Child centric practices constitute constructivist teaching." (Math teacher) "Letting children construct their knowledge by letting them do." (Language teacher) "I have no idea… it can be challenging." (Language teacher)	Teachers equated constructivism with child-centredness, though some recognized deeper epistemological ideas. Lack of training limited practice.
Q3. How often do you engage the students in group activities in your regular class? (Use of group activities)	Regular use; Occasional use due to constraints	"I personally avoid lecture method, so… two or three times a week I engage them in group activities." (Language teacher) "Not always possible due to time restraints and less spacious classrooms." (Social studies teacher)	Group activities were valued but inconsistently applied due to time, space, and classroom management issues.
Q4. In your opinion are students' experiences necessary in building of concepts and their understanding? If Yes how? / If NO, why? (Role of students' experiences)	Experiences as central to concept formation; Teacher mediation of experience	"Students' experiences are important for making them relate to new topics." (Math teacher) "It does not completely depend on their experiences only. Teachers are the ones to make them understand…" (Social science teacher)	Teachers affirmed experiences aid learning, though one perspective emphasized teacher's authority in guiding them.
Q5. Do you encourage student led activities in your classroom? If you do/don't, does it ever make you feel insignificant? (Student-led activities)	Encouragement of leadership; Concerns about discipline	"Students' participation is a must to gain knowledge… I also enjoy learning with them." (Social studies teacher) "No, disciplinary problems may arise…" (IT teacher)	Teachers generally encouraged student leadership but varied in comfort. Most valued it, some worried about discipline.

Q6. What kind of evaluation techniques or strategies are you following to evaluate your students? (Evaluation practices)	Traditional tests; Peer/self-evaluation; Observation/journals	"I ask them questions… conduct weekly tests." (Social studies teacher) "I make students evaluate each other… give them the authority to teach." (Social science teacher) "I observe my students and maintain a journal." (Teacher)	Evaluation was largely traditional; innovative strategies like peer evaluation or journaling were used by only a few.

was drawn from each dimension, with emphasis on practical aspects of teaching. This section presents the analysis of responses to those questions, organized thematically with illustrative quotations.

Across all six questions, teachers expressed broad awareness of constructivist principles; reflection, group work, student experiences, and learner-centred pedagogy were all valued. However, the implementation was inconsistent and often constrained by syllabus demands, time, classroom management, and limited training. While teachers endorsed constructivist ideals, many practices remained traditional or situational.

Integration of Quantitative and Qualitative Findings

This section deals with the integration of quantitative and qualitative findings and drawing meta-inferences from the integration of both forms of data. The integration of quantitative and qualitative results along with meta-inference has been presented using joint display.

Table 7: Integration of Quantitative and Qualitative Findings

Quantitative Findings	**Qualitative Findings**	**Meta-Inference**
70% of teachers reported Favourable / Highly Favourable attitudes. No significant demographic differences.	Teachers express strong theoretical support for constructivism and identify as facilitators. (**Sample Quote:** "*I believe in being a guide, not a lecturer*")	**CONVERGENCE:** A positive inclination towards constructivism exists among teachers regardless of their demographic backgrounds.
Mean scores are highest in dimensions like Reflection and Autonomy.	Teachers value reflection and student-centeredness in theory. (**Sample Quote:** *"Engaging myself in reflection definitely improves my practices"*)	**CONVERGENCE:** The principles that the teachers value high align with the constructs measured by the TASCAT scale.
28% reported Unfavourable attitudes.	Teachers describe significant systemic barriers such as syllabus, time, class size that prevent proper implementation of constructivist approach. (**Sample Quote:** *"Sometimes I do try to engage students in group activities as it is not always possible to do regularly due to time restraints and less spacious classroom"*)	**DIVERGENCE/EXPANSION:** The unfavourable attitudes reported by the portion of the teachers may be less about the negative disposition and more a pragmatic response to contextual constraints. In this case, the qualitative data explains the possible *reasons* behind the quantitative scores.
No significant difference in practices by demographic factors.	All teachers, regardless of gender, subject, or experience, described similar barriers.	**COMPLEMENTARITY:** The qualitative data confirms the quantitative finding that demographics are not a primary factor; instead, systemic issues are the constraints for the implementation of constructivist approach.
The teachers who have more experience were found to have a high score on the Evaluation dimension which means that the experienced teachers were more inclined towards constructivist evaluation techniques compared to the teachers who have a less experience.	Interview responses revealed that most of the teachers still use traditional evaluation techniques such as tests and assignments. Only a few highly experienced teachers reported that they used journals or peer assessment. (**Sample Quote:** *"To evaluate my students, I ask them question after finishing each topic and recapitulate the chapter before starting new. I also conduct weekly tests to check their progress").*	**DIVERGENCE:** The quantitative score suggests a positive attitude towards constructivist evaluation, but qualitative data shows a failure to translate this attitude into practice, highlighting a key theory-practice gap.

RESULTS AND DISCUSSION

The present study aimed to explore teachers' attitudes towards the constructivist approach and their classroom practices at the secondary level in Gyalshing District, Sikkim, through a convergent parallel mixed-method design. Both quantitative and qualitative data were triangulated to provide a comprehensive picture of teachers' beliefs and practices, as well as the challenges they face in implementing constructivist pedagogy.

Teachers' Attitudes towards Constructivism: The findings revealed that teachers' attitudes ranged from highly favourable to unfavourable, with more than half demonstrating a favourable stance towards constructivist pedagogy. Quantitative analysis showed no statistically significant differences in teachers' attitudes based on gender, subject taught, age, or years of teaching experience. This result is consistent with previous studies that also reported no attitudinal difference with respect to gender or subject specialization (Sthapak & Singh, 2017; Hursen & Soykara, 2012; Lyngdoh & Sungoh, 2017; Parray *et al.* 2021). However, some studies have reported contrasting evidence. Önen et al. (2018) observed that teachers with more teaching experience and those who perceived themselves as more competent exhibited stronger constructivist attitudes. Similarly, Maity and Mukherjee (2021) found that female respondents expressed stronger constructivist beliefs than their male counterparts. Kaushik (2018) also concluded that arts teachers were most inclined towards constructivism, followed by science and commerce teachers. These mixed results suggest that contextual and demographic factors may play a nuanced role in shaping teachers' orientations.

Classroom Practices of Teachers: Qualitative findings indicated that teachers often described themselves as guides and facilitators, encouraging group activities, project work, and assignments. A number of teachers emphasized the importance of student participation and collaborative learning, reflecting alignment with constructivist ideals. Yet, a deeper analysis revealed a tendency towards generalized statements rather than specific examples. For instance, while some teachers claimed to promote inquiry-based learning or collaboration, they struggled to articulate how these practices were operationalized in their classrooms. This gap between theoretical endorsement and practical articulation echoes earlier research suggesting that while teachers may adopt the language of constructivism, their practices often remain conventional (Dagnew, 2017). Assessment practices particularly demonstrated this gap, although teachers claimed to support student-centred evaluation, most continued to rely heavily on pen-paper tests, with limited integration of formative and reflective assessment strategies. These findings are congruent with studies by Cetin *et al.* (2014), Uzuntiryaki *et al.* (2010), and Mengistie & Jirata (2016), all of whom noted that teachers' constructivist rhetoric often exceeded their practical enactment.

Barriers and Constraints: Teachers in this study consistently cited systemic challenges such as syllabus pressure, time limitations, and the diversity of learners as significant obstacles to implementing constructivist pedagogy. Several respondents expressed that engaging students in reflective discussions or collaborative inquiry was often impractical within the constraints of the prescribed curriculum. Such concerns mirror earlier findings that highlighted the influence of rigid curriculum structures, large class sizes, and exam-driven systems on teachers' pedagogical choices (Cetin *et al.* 2014; Uzuntiryaki *et al.* 2010). These barriers underscore the complex interplay between individual teacher attitudes and broader systemic conditions. While teachers may recognize the value of constructivist strategies, structural pressures often limit the extent to which these can be integrated into daily practice. This suggests that favourable attitudes alone are insufficient to transform pedagogy; enabling conditions at the institutional and policy levels are equally critical.

Bridging the Theory and Practice Gap: One of the key insights from the study lies in the observed gap between teachers' understanding of constructivism and its actual application. Although many teachers expressed support for student collaboration, critical thinking, and hands-on learning experiences, their responses lacked clarity and depth. The vagueness of their descriptions points to a partial or surface-level understanding of constructivist principles. This echoes the findings of Mengistie and Jirata (2016), who observed that while teachers frequently adopted constructivist terminology, they often

failed to provide evidence of substantive classroom change. Such a gap may reflect limitations in professional development. Teachers may not have had sufficient training or mentoring in constructivist pedagogy, making it difficult for them to move beyond rhetoric to practice. Moreover, the difficulty in articulating constructivist practices could suggest a lack of confidence in their ability to justify classroom decisions within a constructivist framework. This highlights the need for continuous professional development initiatives that not only familiarize teachers with constructivist theory but also support them in experimenting with concrete strategies and reflecting on their outcomes.

IMPLICATIONS OF THE STUDY

The findings carry several implications for policy and practice. The generally favourable attitude of teachers towards constructivism suggests a strong foundation on which reforms can be built. However, without systemic changes to curriculum, assessment structures, and workload, teachers may remain constrained in their ability to implement student-centred practices. This resonates with Dagnew (2017) and Cetin *et al.* (2014), who highlighted that teacher readiness must be matched with institutional support. The results emphasize the importance of professional development programs that go beyond theoretical workshops. Practical, classroom-based training that allows teachers to experiment with and reflect on constructivist strategies could help bridge the theory–practice divide. Peer mentoring, collaborative lesson planning, and reflective teaching portfolios could also support teachers in embedding constructivist practices more deeply. Finally, the study underscores the need for future research to examine the contextual factors that enable or constrain constructivist practices. While this study found no significant demographic differences in attitudes, contrasting evidence from other regions suggests that variables such as gender, subject, and professional experience may matter in certain contexts. Cross-regional comparative studies could therefore provide richer insights into the dynamics of teacher beliefs and practices.

CONCLUSION

The aim of this research was to study attitude of secondary school teachers towards constructivist approach in teaching and their practices related to it. The findings of the study indicate constructivist approach to teaching can be employed by any teacher irrespective of gender, subject, age and teaching experience as there existed no significant difference among any of the stated demographic variables. Further it could be found that teachers are aware and are willing to implement constructivist strategies of teaching in their classroom. Majority of the teachers expressed to reflect regularly on their practices, engage students in group activities ask for students' feedback and consider their opinions while teaching. While teachers claimed to implement constructivist strategies, their descriptions lacked specific details and concrete examples to some extent. Additionally challenges such as time constraints, lengthy syllabus, curricular load, student diversity in the classroom, and a lack of resources are hindering them to adopt the constructivist method successfully.

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