Twenty-first Century approaches to Metacognition and its impact on ELT – A Review of Indian Doctoral Theses

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Abstract. Since colonial times, English Language Teaching (ELT) has been extensively practised in India. The Indian ELT scenario has evolved over the years, in tune with global developments. In recent times, researchers have begun to explore the efficacy of metacognitive approaches in ELT. This paper attempts to review the trends and methods adopted by Indian doctoral research scholars in the area of metacognitive ELT studies by analysing Ph.D. theses published between 2012 and 2022. Since metacognition can positively influence English language teaching, as with other subjects, the authors attempted to analyse the PhD theses that employed metacognition in ELT in the Indian context. Based on the data obtained from Shodhganga, an Indian theses repository, we identified 29 theses that matched our requirements. The study employed a systematic review method to review the theses and adopted the PRISMA guidelines to analyse the data. The themes, major trends and factors influencing metacognitive research were analysed. The study revealed that several researchers relied heavily on a blend of experimental and quantitative approaches, relegating methodologies, topics and context to the background. The overreliance on data-driven research likely stems from several factors such as, the prevailing research culture that emphasizes quantitative research over qualitative studies, uneven emphasis on interdisciplinary research, readily available reading material and data collection sources, and more importantly, the easy accessibility of samples. Finally, the article proposes a few recommendations to develop a metacognitive English Language Teaching culture in India, based on the findings.

Keywords: Metacognition; ELT research trends; Language Research; Indian Metacognitive Research

1. Introduction
In the educational scenario of the twenty-first century, the value of metacognition in enhancing the learning outcomes in English Language

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Teaching (ELT) has garnered considerable attention among Indian researchers and educationalists. Therefore, this paper explores the contemporary approaches used in Metacognitive ELT doctoral theses in Indian universities and colleges. English is being taught in India following the Charter Act of 1813 (Noreen, 2023). English was initially introduced in India as a means of instruction. Macaulay, in his famous/infamous Minutes of February 2, 1835, stressed that the British had to educate the people who could not be educated in their mother tongue and hence they had to be taught in a foreign language. He declared that the values of the English language were the foremost among the other Western languages because the English language had imaginary works equivalent to that of Greek (Bhattacharya, 2022). English is now used not only as a medium of instruction in India but also in the varied spheres of life. It is widely used by the press and broadcasting agencies, to communicate and correspond in the Parliament and the courts, and also to unite people across the country. English has emerged as a global language, which provides an opportunity to efficiently connect in various geographical settings (Hossain, 2024). Therefore, the importance given to English in India cannot be disregarded. It also has become the language of communication among Indian business professionals and plays a significant role both at home and in the market (Krishna, 2019). Thus, English education is sought after not only by the families but also encouraged by the government through national policies such as the new National Education Policy of 2020. However, the private sector seems to be ahead of the public institutions in promoting English language. With the huge difference between public and private schools in equipping students with English language skills, there is mounting pressure from the public for English medium of instruction in the public schools (Sreekanth, 2021).

Research on English language education in India has been prominent since colonial times and the studies undertaken by West in the year 1926 and Prabhu in 1987 are two major pieces of evidence (Tasildar, 2021). Meganathan (2019) in his work based on six earlier surveys written on education in India by Buch, NCERT and Devaki states that research in English language education was undertaken in the fields of - research methodology, language policy, materials development, curriculum and language skills. Indian Government also has taken steps to develop English Language Teaching (ELT) Research in the country along with English and Foreign Language University (EFLU) and some Regional Institutions by conducting national-level conferences in ELT and also by urging teachers to undertake research in ELT (Chowdhury & Pandey, 2019). Additional conferences in ELT are conducted by a few associations like the English Language Teachers' Association of India and other higher education institutions in India. There are also several Indian journals which publish ELT research exclusively. Of all the foreign/second language research studies conducted in India, the prominent research is in the field of ELT.

The term metacognition has various connotations that have intrigued scholars and researchers for the past forty years. The rise of interest in metacognitive intervention in education for the past four decades is because of two reasons - The notion that it is a prognosticator of the child's learning (Moreno et al., 2022)

and the rise in the interest in research on cognitive theories as it has impacted the rise of computer technology and telecommunication. Its significance and implication on teaching and learning have become the focal point in educational research (Craig et al., 2020). The term 'Metacognition' was coined by John Flavell in the latter part of the 1970s. This term is used in various fields; therefore, it is multi-dimensional and interpreted in various ways (Terneusen et al., 2024). The prefix 'Meta' has its origins in Greek, meaning 'beyond'. As cited by Tarricone, (2011), the word meta is added to the Latin term 'cognition' meaning 'to know or to learn' in order to highlight the understanding about one's own cognition. The major difference between cognition and metacognition is that the former talks about the 'brain's ability to acquire, process, store and retrieve information' (Khera & Rangasamy, 2021) while the latter emphasises active control over cognitive processes (Craig et al., 2020).

In India, trends analysis among the doctoral studies, have mainly focussed on ELT within the wider context of English Studies. However, a study by Tasildar, (2021) views ELT doctoral theses as a separate study. Other studies by Jyothi, (2018); Tasildar (2013) and Tasildar (2019) have analysed English studies across various colleges and universities in India. Despite the extensive reviews on English Studies, there is a dearth of reviews exclusively on ELT and Metacognitive studies in ELT.

The study attempts to fill the gap by analysing the PhD theses published on Metacognitive studies in ELT in India. Such studies can help us identify the most analysed trends in metacognitive Indian ELT research, under-used methods or methodologies and over-used research designs and instrumentations in metacognitive ELT investigation. This could further assist in identifying factors affecting the Indian ELT research in metacognition and aid in analysing the factors that influence policymaking in this area. The paper further aims to explore the research opportunities and challenges in the field of Metacognitive ELT in India. Knowledge about the focus areas in Indian Metacognitive studies in ELT can help policymakers, instructors, students, and scholars recognize the research trends and influence future studies in this field. Further, this gives a better overview of the current state of affairs in the ELT community. Additionally, it helps us understand how to advance the ELT community forward.

The current review aimed at addressing the following questions:
1. What are the major trends in Metacognitive research in ELT, in India?
2. What are the factors that account for the metacognitive research topics in India?
3. To what extent similar or dissimilar themes/content are reported in the use of metacognition in ELT in Indian theses?

2. Methodology
2.1. Research Design
A systematic review method helps to analyse the literature on a specific subject comprehensively with minimal bias ensuring an accurate and clear understanding of data. Therefore, the current study adopted this review method

to investigate and answer the research questions stated above. The study analysed the Indian PhD theses on metacognitive research in ELT over the past 11 years (2012 - 2022). This paper attempts to present a holistic view of the impact of metacognitive aspects on ELT research in India.

The study design follows the guidelines of PRISMA which is widely preferred for reporting systematic review. The use of PRISMA ensures that no relevant literature is lost and it also provides a set standard for conducting and reporting a systematic review.

2.2. Research Materials and Instruments

The data on theses of the past 11 years (2012 - 2022) related to metacognitive English Language Teaching was obtained from Shodhganga – an Indian theses repository. The search terms were a combination of keywords such as metacognition, English Language Teaching and English Language Learning. The search was restricted to the theses published within the mentioned time frame and to their availability in Shodhganga. Table 1. Depicts the information of the selected theses for the study.

Table 1: Thesis Information

S. No.	Thesis Title	Author	Year
1.	Effectiveness of metacognitive teaching learning strategies on the achievement of various categories of X standard students in English	Stanislas	2012
2.	Effectiveness of teaching reading comprehension through small group interaction techniques among engineering students a comparative study	Arthy	2013
3.	Teaching English as a second language at degree level a comparative analysis of the contemporary strategies used in colleges affiliate to Swami Ramanand Teerth Marathwada University Nanded	Dharmaraj	2013
4.	The impact of language learning strategies instruction on Assamese ESL learners	Kakoty	2013
5.	Impact of vocabulary learning strategies on ESP learners' vocabulary retention an experimental study	Kavari	2014
6.	Effectiveness of self-instructional approach in improving communication skills among prospective teachers	Manokaran	2014
7.	Developing a conceptual framework for teaching thinking as a distinct component in the ESL curriculum	Narayana Swamy	2014

8.	Self-access and interactive language learning in the English language classroom using multimedia among students of tertiary level	Narayanan	2014
9.	Integrating learner autonomy and task-based language teaching an innovative method for enhancing the post-graduate learners' speaking skill in English	Sivakami	2014
10.	Self-empowerment of teachers through task- based teaching TBT within the theoretical frameworks of multiple intelligences MI and revised blooms taxonomy RBT	Sivakumar	2014
11.	Enhancing reading comprehension skills of engineering students through games and multimedia	Vichitra	2014
12.	Effect of task-based language teaching on metacognition and reading strategies at the tertiary level	Anandam	2016
13.	A study on the English language learning strategies used by the secondary school students	Durgesham	2016
14.	Effectiveness of incorporating Internet and computer-based tasks to develop writing and speaking skills of MBA students	Patel	2016
15.	Effect of student teams achievement divisions strategy and technology enriched task based language teaching on achievement in English and self-regulation of standard viii students	Sabna	2016
16.	The effects of reciprocal teaching on English reading comprehension in a second language classroom	Vadlamudi	2016
17.	The effect of cognitive academic language learning approach model on the development of academic language skills and academic achievement of ninth standard students a study	Chougule	2017
18.	Influence of learning style and study skills on oral communication in English of student teachers	Manju	2017
19.	Study of academic achievement in English as related to learning styles and metacognitive skills among senior secondary school students	Narula	2017
20.	An empirical study on developing strategic reading comprehension skills among the first year B.Tech	Sudheer	2017

	students of M V R College of Engineering and Technology, paritala affiliated to Jawaharlal Nehru Technological University Kakinada		
21.	The understanding and use of metacognitive strategies in group discussions among first year engineering students an exploratory study	Chakravarty	2018
22.	Teacher learner autonomy in the English language classroom in select engineering institutions of Tamil Nadu an analysis	Gandhimathi	2018
23.	Raising Metacognitive Awareness in Undergraduate Learners to Improve Academic Writing	Kumar	2018
24.	Effect of metacognitive awareness academic anxiety and achievement motivation on achievement in English of secondary school students with special reference to certain demographic variables	Sarwer	2018
25.	Stature of metacognitive awareness in reading strategies among divergent learners	Vijayalakshmi	2019
26.	Correlation between metacognitive experiences and writing an experimental study of selected tertiary level l2 learners of English in Kerala	Ajith	2021
27.	Effects of motivation socio-economic status and metacognition in the second language acquisition among the entry level college students of West Bengal	Maji	2021
28.	An experimental study on the use of mobile technologies to help develop metacognitive listening strategies and higher order thinking skills among select rural engineering students in Andhra Pradesh	Sastry	2021
29.	Effect of online and face to face collaborative learning strategies on achievement in English in relation to motivational beliefs and metacognition	Suruchi	2021

2.3 Collection of Data

Data selection is based on the inclusion criteria. The data collected underwent the systemic analysis process which involved identification, screening, synthesis and review. Finally, 29 theses were selected after the search in Shodhganga

using the combination of keywords. The data collection process involved a thorough reading, understanding and examination of the theses selected. The study focussed on collecting the data related to the focus area on which the topics are researched, the context of the study and a review of the methods and data used in the study. Table 2. Portrays the inclusion and exclusion criteria followed while collecting the data.

Table 2: Inclusion and Exclusion Criteria

Criteria	Inclusion	Exclusion
Type of Theses	Theses use metacognitive theory within the English Language Teaching and Learning context.	Theses use metacognitive theory outside of the English Language Teaching and Learning context.
Publication Date	2012-2022 (11 years)	Before 2012 and after 2022
Language used	English	Every other language
Type of Publication	Theses	All the other kinds of academic works
Information Source	Theses published in Shodhganga - an Indian theses repository	All the other theses repositories
Author and Interest	Indian Researchers. Theses were published in India with Indian interest.	Indian or non-Indian. Theses were published in India with the interest of other countries. Theses were published in another country with Indian interest.
Methodology	Theses use both experimental and non-experimental research methods.	NA
Study Context	Various educational institutions with any age group as a sample have Metacognitive theory usage in English Language Teaching and Learning contexts.	Educational institutions with any age group as a sample have Metacognitive theory usage in other subjects.

With the inclusion criteria, the authors located twenty-nine theses.

Table 3. Shows the data of university type and total number of studies conducted in each type of university in metacognitive ELT research.

Table 3: University Type and Studies Conducted

University	Private University	State University	Central University	Total
Frequency	4	19	6	29

Table 4. Highlights the data provided on the type of departments carrying out metacognitive ELT research.

Table 4: Studies Carried Out in Each Department

	Department of Education	Department of English/ Languages/English Language Education	Department of Humanities	Total
Frequency	11	17	1	29

Table 5. Presents the name of universities and the number of theses published in each of the universities on metacognitive ELT.

Table 5: Universities and Thesis Count

1.	Universities	Frequency
2.	English and Foreign Languages University	4
3.	Bharathiar University	4
4.	Maharaja Sayajirao University	2
5.	Alagappa University	2
6.	Panjab University	2
7.	Amrita Vishwa Vidyapeetham University	1
8.	REVA University	1
9.	Hindustan University	1
10.	VIT University	1
11.	Osmania University	1
12.	North-Eastern Hill University	1
13.	Manonmaniam Sundaranar University	1
14.	Aligarh Muslim University	1
15.	Shivaji University	1
16.	Madurai Kamraj University	1
17.	Sidho Kanho Birsha University	1
18.	Maharshi Dayanand University	1
19.	University of Calicut	1
20.	Acharya Nagarjuna University	1
21.	Swami Ramanand Teerth Marathwada University	1
	Total	29

Table 6. Presents the year-wise data on theses completions. In some of the years, no theses were published in the focus area of the research article.

Table 6: Theses Completion Data

Years	2012	2013	2014	2015	2016	2017
Frequency	1	3	7	0	5	4
Percentage	3.44	10.34	24.13	0	17.24	13.79

2018	2019	2020	2021	2022	Sum
4	1	0	4	0	29
13.79	3.44	0	13.79	0	99.96

Figure 1. Is the PRISMA flow diagram to ensure that no relevant literature is lost (Page et al., 2021). The number of theses identified, screened and included are represented clearly in represented.
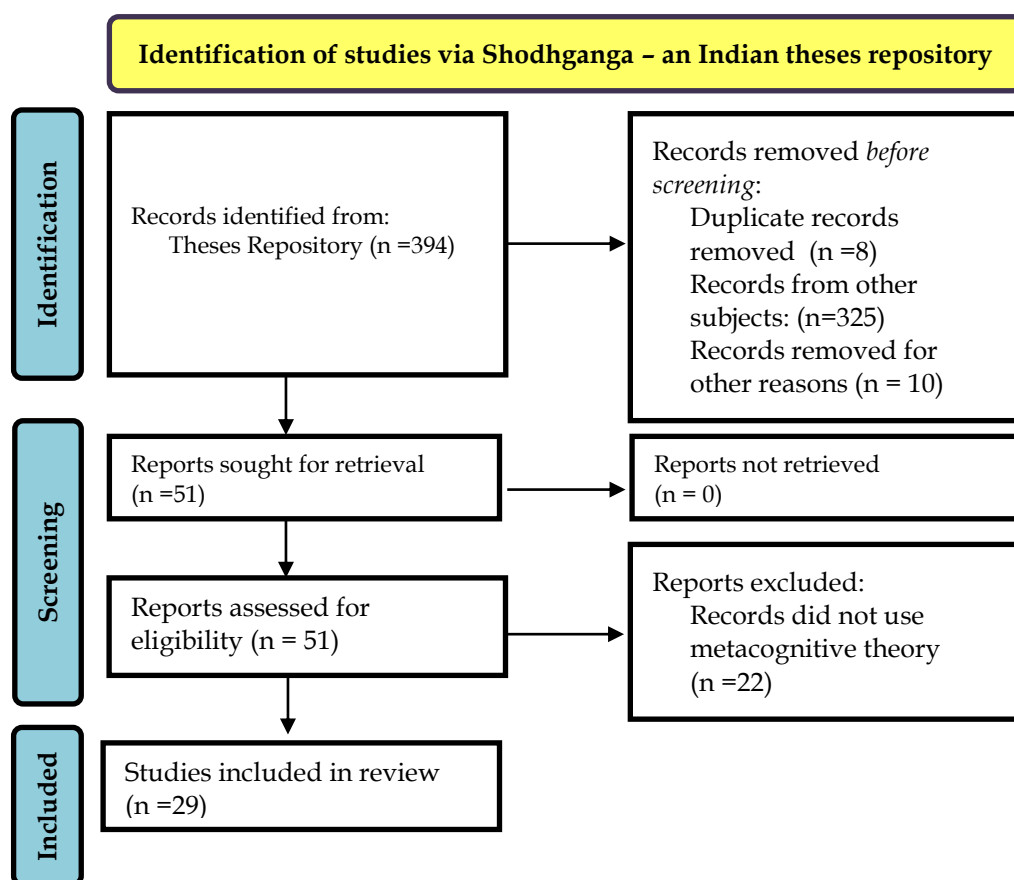

Figure 1: PRISMA flow diagram

2.4 Data Analysis

The studies analysed in this paper pertain to Indian Ph.D. theses focusing on ELT using the metacognitive theory. The data analysis mainly focused on the thrust areas of the theses reviewed, the context of the study and the methods and the nature of data used. The analysis identified repetitive patterns, trends, and gaps in metacognitive ELT research in India to provide suggestions based on the analysis.

With respect to the first research question on the major trends in Metacognitive research in ELT, in India, the analysis offers a comprehensive view of metacognitive ELT research in India. To answer the second research question, on the factors that account for the metacognitive research topics in India, the authors analysed the contextual factors affecting the metacognitive research in ELT in India. The third question on to what extent similar or dissimilar themes/content are reported in the use of metacognition in ELT in Indian theses was addressed by making a comparative analysis of the identified theses to show the extent to which the theses are similar or dissimilar.

3. Results and Discussion:

3.1. Major trends in Metacognitive research in ELT in India

This review on doctoral theses in metacognitive Indian ELT highlights major trends based on the data, and are depicted as follows. Table 7 presents the data analysis of methods and data types used in the reviewed Metacognitive ELT theses. The experimental method of research is the preferred mode, with 68.96 per cent of theses adopting it, while 31.03 per cent have employed non-experimental research methods. Among the identified non-experimental studies, the usage of the Survey Method is the highest (Dharmaraj, 2013; Durgesham, 2016; Kumar, 2018; Maji, 2021; Manju, 2017; Narula, 2017; Sarwer, 2018; Vichitra, 2014). However, to collect and analyse the data, 51.72 per cent of the researchers used a quantitative approach. The prominent quantitative data collection techniques used are closed questionnaires, experiments, structured or systemic observations, rubrics, tests, quizzes, comparative methods, school records, and official statistical data. The noticeable qualitative data collection sources are worksheets, semi-structured interviews, observations, open-ended questionnaires, diary entries, government reports, and school records.

Table 7: Methods and Data Used

	Method		Data		
	Experimental	Non-experimental	Quantitative	Qualitative	Mixed
Frequency	20	9	15	4	10
Theses in Percentage	68.96	31.03	51.72	13.79	34.48
Total	29 studies; 99.99%		29 studies; 99.99%		

Table 8 shows the details of the educational levels of samples used by the researchers. The majority of research, amounting to 55.17 per cent is done with undergraduate students to study their English language proficiency development followed by English language learning research among high school students which accounts for 24.13 per cent.

Table 8: Educational Context

	Frequency	Percentage
High Schools	7	24.13
Higher Secondary Schools	1	3.44
Undergraduates in University	16	55.17
Postgraduates in University	2	6.89
Teachers	1	3.44
Teacher Trainees	2	6.89
Total	29	99.96

Table 9 gives the details of the educational institutions in which most of the research work is undertaken. Only a few of the researchers have opted to conduct research in government institutions.

Table 9: Educational Institutions

	College/University			School			Total
	Public	Private	Both	Public	Private	Both	
Frequency	7	10	3	3	3	3	29
Percentage	24.13	34.48	10.34	10.34	10.34	10.34	99.97

Table 10 offers the various sampling techniques used in the reviewed theses. A large number of studies used random sampling (34.48%) and convenient sampling techniques (34.48%).

Table 10: Sampling Techniques Used

	Frequency	Percentage
Convenient Sampling	10	34.48
Random Sampling	10	34.48
Purposive Sampling	2	6.89
Cluster Sampling	2	6.89
Stratified Random Sampling	2	6.89
Voluntary Response Sampling	1	3.44
Multistage Random Sampling	1	3.44
Systemic Purposive Random Sampling	1	3.44
Totals	29	99.95

3.2. Factors that account for the metacognitive research topics in India

Overdependence on experimental research and data-quantifying methods contributes to a significant portion of the Indian metacognitive ELT research. Further, several researchers have employed similar tools, samples, sampling techniques, topics, contexts, institutions, and metacognitive interests, entirely overlooking other tools and techniques. The research in Indian Metacognitive ELT is largely done in the Departments of Education and the Department of English (including the Department of Languages and Department of English Language Education). A majority of the topics researched, comprising and excluding metacognition, predominantly use a quantitative approach. The probable reasons for the quantitative approach's prominence in Indian Metacognitive ELT research are the researchers' naivety in identifying gaps and issues that are worth investigating and the lack of awareness about qualitative data analysis methods and techniques. In Indian Metacognitive ELT research, the reviewed experimental studies have provided positive results obtained after the experiment. Most of the researchers have not provided explicit information on the situation and the reason for an instructional measure becoming successful or ineffective in a given educational setting, without adding much to the existing body of knowledge. Most of the Indian Ph.D. theses on metacognitive ELT rely on the Literature Review of the material available in institutional libraries, locally published journals and articles which are widely available to access in search engines. Thus, recurrent methods, research designs, samples, tools, sampling techniques, and topics in these articles affect their perspectives on areas which need exploration on how to conduct research in general.

The research topic, context and methodology are vastly determined by the sampling techniques used in the studies, as well. Being able to access the samples has caused excessive dependence on certain sampling techniques and

completely ignoring others. Most of the studies applying random sampling techniques conduct non-experimental methods of research, predominantly survey research; thus, affecting the methodology used in the study. The contextual factor is affected by researchers' reliance on convenient sampling technique; among all the studies using convenient sampling, 80 % of studies are done in Higher Educational Institutions, especially among Undergraduates (as it is easily accessible to the researcher) and only 20% of studies are carried out in secondary schools. Likewise, this has also affected the methodology used in the research; 80% of studies using convenient sampling techniques used experimental methods for the study, other 20% opted for non-experimental methods. Thus, the researchers' bias in choosing the topic, methodology and context arises due to the accessible nature of the samples used for the study. Consequently, less regard has been given to the need for the study or to identify the gaps in the area of the study or the study samples. A better equilibrium could have been attained if the researchers had attempted to explore the actual needs of the learners and teachers in the Indian metacognitive ELT community.

3.3. Similarity of themes/content reported in the use of metacognition in ELT in Indian theses

The similarities of themes/contents of the doctoral theses are analysed and depicted in Table 11. It illustrates the number of studies and their percentage in each research area, which concentrates on developing second language acquisition skills using metacognition with an emphasis on reading, writing, listening and speaking. Besides, the research areas in Indian metacognitive ELT hinge on learning and teaching, curriculum framing, vocabulary, instructional materials, communication skills, and teachers' and learners' autonomy. Six studies out of twenty-nine employed games, multimedia, computers and mobiles but they all try to enhance one of the ten fields mentioned above (Narayanan, 2014; Patel, 2016; Sabna, 2016; Sastry, 2021; Suruchi, 2021; Vichitra, 2014). Therefore, all these studies have been included in the ten areas. The research areas in the theses primarily focused on the following metacognitive subfields - metacognitive skills, metacognitive awareness, self-regulation, metacognitive experience and metacognitive strategies.

Table 11 categorizes information starting from the most researched to the least researched areas of ELT.

Table 11: Percentage of studies in each research area in ELT

Research Area	Frequency	Percentage
Writing	6	20.68
Learning and Teaching	6	20.68
Reading	6	20.68
Communication Skills	4	13.79
Teachers' and Learners' Autonomy	2	6.89
Instructional Materials and Methods	1	3.44
Speaking	1	3.44
Listening	1	3.44
Vocabulary	1	3.44
Curriculum Framing	1	3.44
Total	29	99.92

It is observed that the predominant issue in the domain of writing was to improve academic writing by increasing one's metacognitive awareness. Five of the six studies on improving writing concentrate on the development of metacognitive strategies.

The research on Learning and Teaching studies mainly focuses on the strategies of metacognitive teaching-learning. The theses on reading deal with enhancing reading comprehension and the teaching of metacognitive reading strategies to increase metacognitive awareness. Of the four researches on communication skills, three endeavour to use language learning strategies to enhance the learners' communication skills. The research on teacher and learner autonomy also emphasises the liberty of learners and studies how teacher autonomy directly affects learner autonomy. Autonomy is strongly related to metacognition.

The study on Instructional Material and Methods focuses on the simultaneous use of learning methods that use metacognition. The research on speaking skills explores the impact of the use and understanding of metacognitive strategies. Similarly, the investigation on listening skills deals with improving the awareness and use of students' metacognitive listening strategies and higher-order thinking skills using mobile technology to develop the listening performance of ESL learners. On the contrary, the work on vocabulary study delves into finding the impact of vocabulary learning strategies on the learners and consequently tries to assess its effect on vocabulary retention and achievement. Meanwhile, the research on curriculum framing discusses the crucial need for teaching thinking as a separate component in the ESL Curriculum, for which a conceptual framework is developed.

This analysis has helped identify the trends in Indian Metacognitive ELT research. The study was limited to Indian doctoral theses on metacognition and ELT in India. Hence, the findings of the study pertain to the Indian ESL context.

The research gaps and the causes for the dearth of research in the chosen area are given below, which would eventually help identify solutions.

3.4. Research Gaps Identified
From the above analysis, a few topical, methodological, contextual, institutional, procedural, and metacognition-based research gaps have been identified in Metacognitive ELT Studies, in India. In a topical research context, a wide range of topics such as testing, textbook analysis, pronunciation studies, fluency assessment, grammar instruction and programme evaluation are underexplored. As for the methodological approach, high importance is given to experimental and data-quantifying methods. Within experimental research and in a few non-experimental studies quantitative data is used extensively. Qualitative research methods such as action research, case studies, grounded theory, and ethnographic research are scarcely undertaken. For the contextual factors research has been done among students of English for Specific Purposes (ESP) studying undergraduate programmes at the University Institute of Legal Studies affiliated to Panjab University. Therefore, it is evident that there is hardly any

research done using metacognition in Indian ELT among kindergarten children, primary school students and learners of study programmes without academic awards (e.g., IELTS, ESP and English for General Purposes (EGP)). While exploring the institutional aspects, researchers have preferred to conduct studies largely in private institutions, whereas, inadequate investigations have been conducted in semi-private and public institutions. Concurrently, in the procedural context of choosing samples, techniques such as snowball sampling, consecutive sampling and quota sampling are shunned. Lastly, though metacognitive strategy studies are undertaken, other components and sub-components of various models of metacognition are least explored.

4. Conclusion

The corpus of theses on Metacognitive Indian ELT, obtained from Shodhganga, was analysed for the major trends and factors affecting the metacognitive ELT research in India. The trends were analysed by studying the type of method and data used, educational institutions, samples and sampling techniques. The predominance of experimental research and quantitative research methods over other research methods, data collection and analysis techniques, have been the recurrent factors. The similarities in the focus areas of the theses were identified based on the number of studies and their percentage in each of the ten identified research areas for assessing the role of metacognition in second language acquisition. The research areas primarily focused on metacognitive subfields such as metacognitive skills, metacognitive awareness, self-regulation, metacognitive experience and metacognitive strategies. The majority of the research is done on the role of metacognition in writing, reading, learning and teaching. Consequently, research gaps exist in methods, topics and context. The paper cites the probable reasons for certain stereotypical research, such as inappropriate reading material and data collecting sources, neglecting certain samples and sampling techniques, and overdependence on a few research methods, methodologies and research design. The Indian metacognitive ELT research space has immense scope for further explorations and analyses. For instance, grammar teaching, fluency testing, vocabulary learning, pronunciation studies, punctuation studies and text analysis have scope for research. In contextual settings, kindergarten, primary schools and special educational institutes (EGP, ESP, IELTS and others) can be explored. In the methodological context, case studies, ethnography and action research can be employed. Opportunities abound for future researchers to strengthen the metacognitive Indian ELT domain. Experts in the fields of curriculum and conceptual framing, test and content designing, teachers and learners, and material and methods developers have immense potential to revamp metacognitive teaching and research.

5. Recommendations

In the Indian Metacognitive ELT research environment, methodological aspects should be given importance to promote Qualitative research. On the other hand, in experimental research and literature review insights are derived on how knowledge of cognition (either a subcategory or as a whole) or regulation of cognition (either a subcategory or as a whole) plays a supportive pedagogical

role. To further the research, these investigations in the Indian metacognitive ELT context could consider the following aspects: difficulties faced while implementing certain metacognitive techniques, students' responses or attitudes at different stages of application of a metacognitive technique, language categories which were enhanced effectively or to which extent each language category was enhanced while using a certain technique or a model of metacognition. Finally, in these research areas, researchers could provide insights on why the research was a success as this could offer better insights into Metacognitive ELT research in the Indian context.

To improve metacognitive ELT research in India, some reforms are recommended. Firstly, the departments and faculty members in research institutions could help researchers navigate the areas which truly require investigation, rather than performing clichéd research. Secondly, active research activities and workshops could be organised by the institutions on neglected research areas, topics, contexts and methodologies to increase awareness among scholars. Research groups could also identify the role of scholars in policy framing. Thirdly, funding opportunities could boost the morale of the scholars to pick high-quality research, which would invariably foster healthy competition among scholars and institutions. Fourthly, most Indian researchers follow their Western counterparts for research ideas rather than pursuing research relevant to their needs. Therefore, research organisations/institutions should educate researchers on the significance of doing need-based research. In this age of interconnectedness and networking, it is imperative for institutions to help researchers develop connections with scholars and institutions performing research similar elsewhere to benefit from a mutual understanding of research and to keep abreast of the current trends in research. If the suggestions are implemented, revolutionary changes will take place by dismantling the old practices and disseminating the new ones.

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