Information Technology (IT) and Teacher-Talk-Time (TTT) in EFL Classes

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Abstract

Teacher-talk-time (TTT) if often considered a parameter of the effectiveness of an EFL teacher as TTT could relatively impact the student-talk-time (STT), which is considered quite essential in classroom discourses for better student outcomes. In view of the ascending importance of the quantum of TTT in EFL classes, and the ever-increasing integration of information technology (IT) in EFL teaching-learning settings, the present study explores the ways IT is being used to effectively reduce TTT and improve STT as well as the learning outcomes of the students. This study is driven by the assumption that IT supports EFL teachers a great deal in reducing their TTT in their classes. And the study aims at identifying the extent to which IT could support teachers in reducing their teacher talk and in facilitating more of their students' talk. In addition, the study would draw inferences on the impact of the quantity and quality of teacher talk on the student talk as well as on the student outcomes. The study was carried out with the data gathered by employing mixed-methods approach that included that qualitative and quantitative methods together with the data collected from the relevant and existent literature online indirectly via the systematic approach together with the data gathered directly from the teachers of ELT at the Institute of Languages of the University of Tabuk through questionnaires and face-to-face interviews.

Keywords: teacher talk time (TTT), student-talk-time (STT), information technology (IT), learning outcomes

1. Introduction

Communicative language teaching (CLT) has become the most recommended, practiced, and preferred teaching method of teaching English as second or foreign language, worldwide, followed by the theoretical foundations proposed by the linguists like Michale Halliday,

Noam Chomsky and Dell hymns (Freeman & Anderson, 2013). The core objective of communicative teaching method is to provide maximum practice of communication in the target language (L2 or the language being learnt) in the classroom discourses and make the language classes more of student-centered. Several studies present conflicting ideas about the available class-time that can be allocated for different activities that include teacher-talk-time (TTT), and student-talk-time (STT) besides the time needed for other activities such as the individual writing activities to be done by students alone. Several studies pointed out that more of TTT in an English language classroom could transform an English class into more teacher-centered and uncommunicative teaching method, which lessens the opportunities for students to practice in L2. In view of the conflicting ideas presented by several scholars about the quantum of TTT and STT, this research study was aimed at finding out the existent levels of TTT and STT, and the factors that keep operating in deciding the ideal ratio of TTT and STT. Since there are very few studies available in literature review, relevant to this study, it was determined to carry out this study with the data collected through empirical observation of ELT classes close to the author, together with the data obtained through a questionnaire that comprises the questions related to both quantitative and qualitative methods. It was expected that the findings of this study could support the prospective scholars interested in similar studies by providing them an initiative platform over which the follow up studies can be designed and carried out.

1.1 Thesis Statement

Influenced by the theoretical frameworks of linguistic theories such the 'language acquisition and learning theory' proposed by Stephen Krashen (Schütz, 2007), the teacher trainers of English language as well as the teachers are advocating and following the communicative language teaching methods that insist on minimal teacher-talk-time (TTT) and maximum student-talk-time (STT) in English classes. On the other hand, several studies in recent times claim that teacher-talk in English classes prove to be crucial in supporting learning the core components of language skills such as grammar, reading, and writing, and teacher-talk constitutes an essential factor in enhancing student outcomes. In view of the rising concerns about teacher-talk, TTT, student-talk and STT, this study aims at exploring the existent status of teacher-talk and student-talk, as well as the ratio of TTT and STT with the objective of finding out the ideal ratio of TTT and STT as well as the design features of the quality of teacher talk that need to be demonstrated by teachers of English language when language teaching is integrated with information technology.

1.2 Limitations of the Study

Since the study is conducted with the data collected from the teachers working at one university, further studies at many other universities and institutes are required for supporting the findings and inferences drawn out of this study. Moreover, the study is from the perspective of teachers and not included the perspectives of students. A more comprehensive results could be obtained with the studies that include the data collected from both teachers and students. Another drawback is that this study is confined to the inductive approach to research process that entails the limitation related to the analysis of the data that can overtly

observed and make generalized assumptions and hypotheses that need to be further corroborated by some clinical approaches of to research process.

1.3 Literature Review

After you have Irrespective of the teaching methods that English language teachers keep following nowadays, integration of Information Technology (IT), in one form or the other, has been a universal phenomenon in their teaching English either as a foreign language or second language or for specific purposes. On the other hand, the use of technology is also redefining and refining the role of English language teacher in a continuum from the traditional perspectives of content deliverers to the present understanding of them as the language learning and acquisition facilitators. To this extent, and in view of greater discussions that pervaded the relevant literature, the factor of teacher-talk-time (TTT) is seen as one of the most crucial parameters in deciding the quality of a language teacher. It is a known fact that student talk was traditionally views as in-disciplinary in any of the classes, in general, and was thought of as disturbance in classes, and the teachers used to subject their students to severe punishments ("Concordia," 2019). However, though much later, the importance of student talk and the necessity of the students' discussions of the lesson contents with their teacher and with their peers was understood to be indispensable for better student engagement and student outcomes in the classroom of all the subjects, and in language classes as it was understood that language learning needs much practice inside the classrooms as well as outside the classrooms. Ever increasing awareness and emphasis on the importance of active practice needed for learner of English as a foreign or second language led to the development of communicative language teaching method, that could mark a phenomenal shift in the teaching of languages.

Communicative language teaching has become the most recommended, practiced, and preferred teaching method of teaching English as second or foreign language, worldwide, followed by the theoretical foundations proposed by the linguists like Michale Halliday, Noam Chomsky and Dell hymns (Freeman & Anderson, 2013). The core objective of communicative teaching method is to provide maximum practice of communication in the target language (L2 or the language being learnt) in the classroom discourses and make the language classes more of student-centered. Several studies present conflicting ideas about the available class time that can be allocated for different activities that include teacher-talk-time (TTT), and student-talk-time (STT). Several studies pointed out that more of TTT in an English language classroom could transform an English class into more teacher-centered and uncommunicative teaching method, which lessens the opportunities for students to practice in L2. In view of the conflicting ideas presented by several scholars about the quantum of TTT and STT, this research study is aimed at finding out the existent levels of TTT and STT, and the factors that keep operating in deciding the ideal ratio of TTT and STT. Since there are very few studies available in literature review, related to this kind of studies, it is determined to carry out this study with the data collected through empirical observation of ELT classes close to the author, together with the data obtained through a questionnaire that comprises the questions related to both quantitative and qualitative methods. It is expected that the findings of this study could support the prospective scholars interested in similar studies by providing

them an initiative platform over which the follow up studies can be designed and carried out.

Communicative language teaching (CLT) method evidently started in 1970s with much of their focus shifting on increasing student-talk-time (STT) and improving the quality of teacher talk while optimizing the TTT by reducing and confining it to its role of facilitating learning (Suemith, 2011). In the view of West (1956) "in a perfect lesson, one teacher with one pupil PTT (Pupil Talking-Time) would be about 60% or 70% or even 80%." In an unpublished manuscript Davies (2011) records that the aim of most of the discussions on TTT would be to increase STT in their 'target-language (TL)' rather than minimizing the TTT and mentions about several studies that resulted in the negative effects of excessive TTT. To the observations and findings of many of the scholars most of the TTT in English classes comprises the activities like presentation of the TL, organization of the class, providing feedback and asking questions for the confirmation of concept clarity (Apaydin and Aydemir, 2018). According to "Concordia" (2019), about 20% to 30% of TTT in English language classes is required because teachers are the authentic and interesting sources of the target language listening, and students need to be guided, supervised, and corrected while they are practicing speaking in their TL. At the same time, it can be noted that digital tools, specifically information channels such as YouTube, private blogs, and internet explorers, can provide much authentic listening contexts apart from providing safe, secure, and non-threatening free learning environment together with the opportunities of being exposed to linguistic and cultural diversities (Siefert, Kelly, Yearta & Oliveira, 2019). Technology integrated language learning can be viewed as a great source of authentic language teaching content, and when the digital sources are used well, it can be understood that teachers can save their TTT in modeling speaking in TL for providing authentic listening content. And through the right digital tools, teachers can reduce their TTT to about 10% as it was observed as the ideal TTT in much advanced English language classes by "Concordia" (2019).

On the contrary, the findings of the study by Rezaee & Farahian (2012) revealed that in the classes they observed, about 70% of the class time was consumed by TTT, about 20% of the class time was available for STT, while the remaining 10% of class time was spent on the other required activities of the class. It was also found that most of the TTT comprises three types of questions viz. procedural questions, divergent questions, and convergent questions. The procedural questions like "Are you ready?" "Shall we start?" "English please. would you?" etc. are the questions that are meant for classroom management. The divergent questions such as "What is X?" "How do you…." and "Why do you think…." are the open-ended questions used to generate original opinions and responses of the students to the questions that are related to their personal experiences. And the convergent questions are the kind of close-ended questions like "Is it correct?" "Have you read the book?" etc. that are aimed at sustaining the students focus on the central themes of the responses to the divergent questions. The article further sheds light on the teachers' questions that can be categorized as self-answering questions that are usually answered immediately by the teacher without providing time-enough for the students, volunteering questions that are the questions that arise from students for discussion, in-chorus questions that are aimed at "whole class check" about the clarity of the concepts taught, and nominating questions can be used to obtain

responses from a specific student. At the end, Rezaee & Farahian (2012) conclude that since "teacher talk is informative, explanatory and descriptive of course materials and helps teaching, it will not be helpful to reduce teacher talk even at upper- intermediate and advanced level classes."

However, the outcomes of most of the studies emphasize on increasing the quality of teacher-talk (TT) and quantity of student-talk (ST) in TL simultaneously decreasing the STT in their 'mother tongue (L1).' Walsh (2002) identified that the quality of teacher talk is the most influential factor in bolstering students' involvement in classroom interactions that could facilitate them in the acquisition of the TL. Because the language classrooms are the contexts created by both teachers and students, and for reasons that classrooms are mostly steered by teachers, TTT plays crucial role in either creating opportunities for the acquisition of the TL, and conversely, even to obstruct or hinder opportunities to involve in the TL acquisition process. Commenting on the quality of teacher-students classroom discourses Thornbury (1996) hints that by improving the quality of referential questions and by lessening the quantity of display questions, teachers of ELT can create a meaningful communicative environment that really supports in practicing and demonstrating the linguistic knowledge acquired by students.

On the other hand, Sharpe (2008) mentioned the different ways that TTT can support in improving the knowledge of the subject under discussion in classes in the ways such as "repeating, recasting and re-contextualizing language to develop technical language; cued elicitation; modifying questioning to extend or reformulate student's reasoning and recycling ideas through busy clusters of words." Scrivener (2005) maintains that although story telling consumes teacher time, TTT for telling stories just for pleasure can enhance students learning by changing their mood and carrying them away from the boredom of continuously learning grammar or continuously working with the activities for developing language learning skills.

2. Theoretical Framework

The importance of STT in ELT has arisen with the realization that the purpose of language learning is to be able to use the knowledge of the language in a variety of social and cultural contexts that demand appropriate communication process that is possible, feasible, acceptable and can be done (Hymes, 1972). The theoretical framework of communicative competence was developed by Hymes from his observations of the requirement of the knowledge of cultural and social factors that set up the context of communication process. The communicative competence framework demands the integration of linguistic theory that comprises linguistic knowledge and linguistic competence with the theory of communication and culture that cumulatively comprise the judgements of grammaticality and acceptability together with the culturally and contextually acceptable determinants of possibility, feasibility, and appropriateness. Influenced by the communicative competence theory, English language teaching has taken a new shift towards improving the learner ability to perform in the target language as its focus that intern demands more of STT and less of TTT, which later has become popular as communicative language teaching (CLT) method.

2.1 Research Methodology

It is both The study was carried out in a two-fold process that involves a comparative data analysis with the data collected, on the one hand, empirically from the ELT teachers working at the University of Tabuk by employing mixed-methods approach and by using structured and semi-structured questionnaires delivered to the ELT teachers at the Institute of Languages, and the data collected, on the other hand, drawing on Kim & Kuljis (2010), by employing online content analysis approach that is much similar to the systematic literature review approach adopted by Salas-Pilco & Yang (2022). Owing to the nature of the content that is unstructured, content analysis of the web-based literature, as it was explored by Kim & Kuljis (2010), offers several benefits of data collection such as that the data is evidently communicative and independent of the persons, unbiased, and conducive for analyzing larger quantities of data. Similarly, the systematic literature review approach "explores previous studies to answer specific research questions based on an explicit, systematic, and replicable search strategy, with inclusion and exclusion criteria (Kitchenham et al., 2009; Xiao & Watson, 2019 as cited in Salas-Pilco & Yang, 2022)."

Since there were hardly any studies found relevant to the present study, this study had to employ various methods of data collection as well as data analysis for obtaining a comprehensive study results, that could provide an overview of the topic under discussion, as the study could become a seminal work in the area of English language teaching with regard to TTT and STT, which eventually could act like an initial source for further studies on the impact of IT on TTT for future scholars. The study followed random sampling method in the collection of data by employing mixed methods approach that comprises both qualitative and quantitative methods. While carrying on-line data collection process, the data collection was based on the relevance of the articles that was determined by the 'cue sentences' and 'cue phrases' that were a combination of the phrases such as 'information technology (IT),' 'teacher talk time,' 'English Language Teaching (ELT),' 'EFL,' 'ESP', 'integration of IT and ELT etc.' The cue sentences and phrases were created logically for exploration of the articles available online that contain the content relevant for answering the following two research questions.

1. Is there any relation between the integration of IT in ELT and the quantum and quality of TTT?

2. In what ways integration of IT in ELT could improve and optimize the quality of TTT in ELT classes?

The analysis of the data is carried out considering the features of communicative classroom talk, as they were recorded by Thornbury (1996), that included 'referential questions', 'display questions', 'content feedback', 'wait time', and 'student-initiated talk' as influential factors of TTT and STT.

Since, the data collection involved both qualitative and quantitative approaches, it can be understood that the quantitative method of research supports in arriving at definitive conclusions based on the numerical data obtained through well-structured survey instruments

that can be analyzed in finding out the validity of the assumptions in specific numerical values (unowacademics, 2014). On the other hand, qualitative method of research is helpful in obtaining the non-numerical and categorical data that can be obtained by using unstructured or semi-structured survey instruments with open-ended questions, and the data can be used for interpreting, describing, and generalizing the phenomena that keeps operating in some observable contexts (Pickell, 2021).

As the study was carried out in combination of both qualitative and quantitative methods, the data collection process included questionnaires, face-to-face interviews, web content analysis as well as systematic literature review process. Further, it can be noted that by obtaining and analyzing the quantitative data, it would be easier to determine the present status of the ratio of TTT and STT, and the ideal ratio of TTT and STT, as they are perceived by practicing teachers. Whereas, the quality of teacher-talk, and the dependent student-talk need to be explored and understood by using qualitative data as the features of teacher-talk such as the type of language that teachers use in their interactions with their students, and the design features or properties of language that need to be used during their interactions to promote communicative competence, the relevant data can be obtained by using open-ended and unstructured questions so that the responses can be used for analyzing and inferring the ideal teacher-talk features. On the other hand, the online data analysis and the systematic literature review approaches were used both quantitatively as well as qualitatively as a background information that can be used for foregrounding the valid inferences drawn from the analyses of the data collected in other ways. Mostly, the online data was used for interpretations of the study outcomes that are obtained via the data obtained from the quantitative and qualitative questionnaires.

2.2 Quantitative Method

Appropriate Quantitative part of the study comprises distribution of the questionnaire that was developed using google forms and distributed to EFL teachers at the Institute of Languages of the University Tabuk, besides the distribution of the questionnaire in person to some other teachers. The questionnaire comprised both the quantitative and qualitative questions that were given in table1 and table2 below. However, responses were received from 8 teachers via google forms, and from 16 teachers in person. The total number of the teachers that participated in the survey was 24 (n = 24) including the 8 teachers whose classes were observed for qualitative information. The quantitative data was used to generalize about the ideal quantum of TTT and STT. The quantitative questions comprise 5 Likert-items, and 4 other questions created for obtaining information about the percentage of teachers with their teaching practice patterns regarding their quantum of TTT and the way they integrate IT in their classes. And so, the analysis of the responses was done separately and are presented with the Likert-items as a group, and the other questions in separate tables.

Table 1. Questionnaire for Quantitative Method - Likert Items

1	As an instructor of English language, I found that Information technology plays a crucial role in teaching English.
2	I believe that TTT is a matter of concern in ELT.
3	I believe that teacher talk needs to be of good quality, and the talk has to be to the minimum possible class-time and need to contribute to more of student talk.
4	I believe that there isn't any relation between TTT and teacher effectiveness in ELT.
5	Technology integration in EFL teaching contributes in minimizing teacher talk and improving the quality of teacher-talk.
6	Ideal Teacher-Talk-Time in EFL classes would be…. = 100 %; > 75 %; > 50 %; < 50 %; < 20 %; 0 %
7	I often use the following sources of technology in my classes, and I found that they it helped me most in reducing as well as improving my teacher-talk. Websites — Mobile Apps — Instructional Teaching content — Authentic teaching content
8	Most of my talk happens at times of …. giving instructions — providing feedback — explaining the concepts — giving instruction, providing feedback and explaining concepts
9	Technology helps me in reducing my teacher talk in …. giving instructions — providing feedback — explaining the concepts — giving instruction, providing feedback and explaining concepts

2.3 Qualitative Method

For qualitative research part of the study, observation of English classes of eight teachers was carried out and noted-down the contents related to the kind of interactions teachers held with their students, and gathered information related to the points at which they keep-talking or stay-observing silently, and the points were noted after having clarifications for their stops and silent observations once they finished their classes. The classes were observed also to understand why teacher-talk is required at some points of the class, and why not at other points so that it would be possible to estimate and generalize the minimum required quantum of teacher-talk-time for providing, instructing, and engaging the students in their assigned

activities. In addition to the data obtained from the class observations, additional data was also collected by distributing the following questionnaires to some of the teachers and obtained responses from 16 teachers and the responses were included in the data for analysis.

Table 2. Questionnaire for Qualitative Method - Open ended and close ended questions

| 1	Could you please tell us in a few words about the way that you use technology for reducing your teacher talk?
2	Could you please mention the kind of technology or the name of technology that you find it more useful in improving teacher quality, and in reducing teacher-talk-time?

3. Data Analysis and Discussion

An analysis of the quantitative data clarifies that all the teachers are of the opinion that IT plays crucial role in ELT. A great majority of the teachers (about 75%) are in favor of reducing their TTT while increasing their STT and having understood the importance of IT in minimizing their TTT, are in favor of integrating IT for reducing their TTT further. It can be noted that although many of the teachers (about 65%) agree that TTT is a matter of concern, a considerable percent (35%) of teachers, although they don't disagree, are doubtful about the role of TTT and STT in ELT. On the other hand, responses regarding the quality of teacher talk reflect that although about 75% of the teachers recognize the importance of the quality of their teacher talk, we can see that about 25% of the teachers are not so concerned or doubtful about the importance of the quality of teacher talk.

As the responses to question 6 of the quantitative list provided in table-3 demonstrate, about 50% of the teachers prefer to have their TTT between 25% and 50%, while the other 50% of teachers are in favor of having TTT between 50% to 75% of the class-time. The responses to the question indicate that despite the dominantly prevalent advocations of student-centered ELT practices currently there is a considerable percent of teachers that may seem to have been reverting in favor of the traditional teacher-centered practices as expressed by Burrows (2018) and Rezaee & Farahian (2012). However, most of the teachers strongly agree that they need to reduce their talk-time further, indicating that most of the teachers are talking for more than 20 minutes in their 60-minute class session. It also needs to be noted that, during interview discussions, considerable number of the teachers say that it's not possible to determine the teacher effectiveness based on their TTT in the classroom, which indicates that although teacher-talk-time needs to be reduced to increase their student talk-time, (STT) it doesn't mean that more of TTT always determines the teacher effectiveness, and it could be understood that there might arise some classroom contexts that demand more of TTT occasionally to make the classes more meaningful with the explanations required for supporting communicative competence further.

On the other hand, responses to the questions 8 and 9 of the quantitative questionnaire indicate that although all the teachers mentioned that they use their TTT for presenting the target language content, for giving instructions on classroom activities, and for providing feedback, most of the teacher talk is spent on explaining the concepts. In addition, some

teachers in the interviews say that apart from using their TTT for the above mentioned three reasons, they also use their TTT for providing explanations of grammar rules and to facilitate their students understand the sentence patterns easily. But most of teachers expressed that they avoid explanations on grammatical rules and instead they say that they encourage their students to discuss and elicit the grammar rules. Responding to the questions on the role of the teachers in their classes a great majority of them say that they assume the role of a facilitator, and most of the times they keep observing their students' interactions, their involvement, and their efforts in completing the given activities. As some teachers say, sometimes they need to participate in their students' interactions, and keep controlling the direction of the conversations. However, most of them say that they don't have to intervene into the discussions of the students because the teachers' intervention may hamper their involvement free of influences. The responses to the questions related to the type of interactions that would be ideal between students and teachers, about 50% of the teachers say that the regular IRF (initiation, response, feedback) interaction patterns, the other 50% support the information generating referential questions.
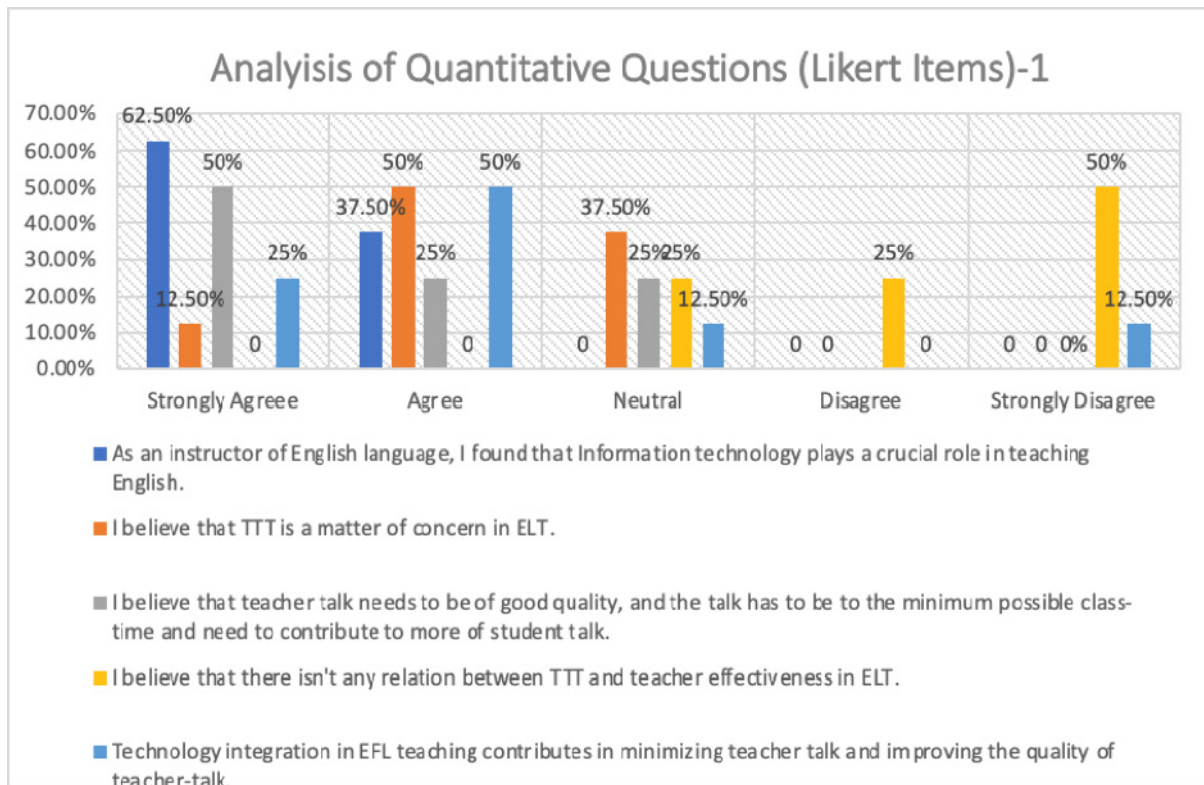
Picture 1. Responses to questions 1 to 5 of the quantitative method

Table 3. Responses to question 6 of quantitative method

		100%	> 75%	>50%	< 50 %	< 20 %	0%
6	Ideal Teacher-Talk-Time in EFL classes would be….	0%	25%	25%	38.00%	12.00%	0%

Table 4. Responses to the Quantitative Question 7

7	I often use the following sources of technology in my classes and I found that they it helped me most in reducing as well as improving my teacher-talk.			
		YouTube, Free EFL work sheets, English Teaching Blogs etc.	Dictionaries, Vocabulary games, Language activities etc.	Language learning resources such as iTools, Quills.org,	TED talk, BBC, CNN, Movie clips etc.
	Websites	25%	50%	25%	0
	Mobile Apps	25%	50%	25%	
	Instructional Teaching content	63%	37%	0	0
	Authentic teaching content	0	37%	13%	50%

Table 5. Responses to quantitative questions 8 & 9

		Giving Instructions	Providing Feedback	Explaining Concepts	Giving Instructions; Feedback & Explaining Concepts
8	Most of my talk happens at times of	25%	12%	0	63%
9	Technology helps me in reducing my teacher talk in	25%	0	25%	50%

Table 6. Common Responses observed to questions 1 & 2 of qualitative method.

1	"I-tools helped a lot explaining and giving them instructions. Some examples of the relevant topics are already solved there to help the learners easily and they do not need extra instructions to solve any activity. Excluding this giving feedback on the blackboard is also helpful during the learning process."; "Instead of modeling and explaining everything for students, I use videos, for Instance, that better explain the ideas of concepts." I use e-course book and I give student chance to do the exercises; "After using a specific type of technology I ask simple questions to check the ss understanding because asking questions reinforces the learning for the student as well as makes them talk"
2	Smartboard, computer, YouTube, Free EFL work sheet, language content resource via websites; e-course -dictionary; Blackboard and i-tools; Teaching aids; projector; Videos

The existent TTT in EFL classes range from 19 minutes to 47 minutes. The data points noted for the analysis of existent quantum of TTT that included the TTT of the teachers whose classes were observed as well as the teachers that participated in the face-to-face interviews are provided below. The total data points indicating the quantum of TTT at present in the classes of 24 teachers are noted as 19, 20, 23, 25, 27, 30, 35, 42, 45, 47, 70 minutes after removing the repeating data points. As the outlying data point 70, and the repeated data points that could reflect the mode of the data are deleted for simplifying the analysis, the final number of data points had become 10, which was taken as the sample size (n = 10) for estimating the population quantum mean of TTT. The following details of the statistical analysis of the data provides the predictions for the prevalent estimated mean quantum of TTT in EFL classes that can be used for finding evidential support in further research works.

Standard Deviation, s: **10.382142788889**

Count, N: 10
Sum, Σx: 313
Mean, x̄: 31.3
Variance, s^2: 107.78888888889

Steps

$$s = \sqrt{\frac{1}{N-1}\sum_{i=1}^{N}(x_i - \overline{x})^2},$$

$$s^2 = \frac{\Sigma(x_i - \bar{x})^2}{N-1}$$

$$= \frac{(19 - 31.3)^2 + \ldots + (47 - 31.3)^2}{10 - 1}$$

$$= \frac{970.1}{9}$$

$$= 107.78888888889$$

$$s = \sqrt{107.78888888889}$$

$$= 10.382142788889$$

1. Since the sample data is less < 30 (n=100) margin of error was calculated as per the t-table with 95% confidence interval.

2. Standard Error of the Mean (SE) = s / sq.rt of N = 10.3821 / sq.rt of 10

3. Margin of Error (ME) = (t-critical value) multiplied by (SE)

4. Margin of error (ME) as per t-table and t-critical value' 2.26215716279827

5. ME = 7.42963754279885 (95% confidence interval)

6. When the population mean of the TTT is assumed to be = 25 minutes.

7. Test statistic T = 1.9189 (Which is in the 95% region of acceptance: [-2.2622, 2.2622].

8. The 95% confidence interval of Group-1 is: [23.8731, 38.7269].

9. The p-value equals 0.08721, (P(x≤1.9189) = 0.9564). It means that the chance of type I error, rejecting a correct H0, is too high: 0.08721 (8.72%). The larger the p-value the more it supports the null hypothesis (H0).

10. **Since the p-value > α, H0 cannot be rejected.**

11. The sample mean can be very close to the expected mean (25).

12. The observed effect size d is medium, 0.61. This indicates that the magnitude of the difference between the average of the differences and the expected average of the differences is medium.

(*Source of Calculations: https://www.statskingdom.com/standard-deviation-calculator.html*)

Distribution: T(df:9)
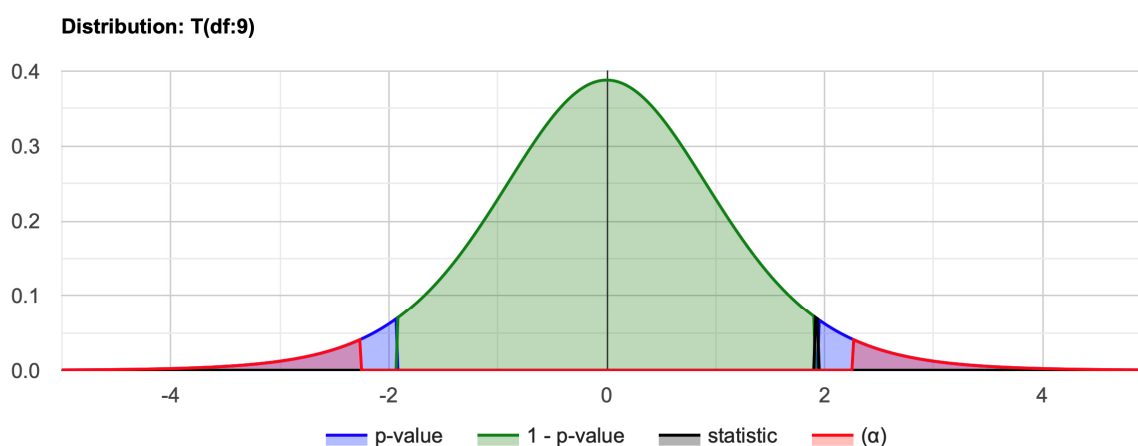
Picture 2. The graph of the t-table for the estimated mean quantum of existent TTT

The data analysis further clarifies that almost all the teachers find that the quality of teacher talk must be mostly focused on the target language related and must be a model of standard language without grammatical inaccuracies and with the required variance in the use of vocabulary within the legibility range of the students. Replies to the question related to the stages of their classes where they can reduce their TTT, most of them say that it is possible to

reduce their TT at every stage of. their lesson plan, and the possibility of reduction depends on the teachers' beliefs about teaching, the teaching method they follow, and the quality of talk that teachers plan to use in their classes. And it's quite interesting to note that all the teachers emphatically say that they need their TTT at times of target language presentation, providing instructions, concept checking and providing feedback. Even though they plan to reduce their teacher talk time further, their class management activities are going beyond their control of their class-time-management. Some of them in the face-to-face interviews expressed the necessity to plan their lesson plans much better and practice further to implement the lesson plans and need to be reflective on the deviations that happened during the actual lesson process, so that they can plan much better in their future classes.

An inquiry into the kind of technology that helps them in reducing teacher talk, almost all of them expressed that technology is much supportive in not only reducing their TTT but also in improving their teacher quality. The technological applications that most of the teachers mentioned to be useful in reducing TTT and improving their teacher talk, as they were mentioned in table 6, include videos from different websites such as YouTube and TED talk, online worksheet, iTools developed by Oxford university press etc. Teachers say that they are using the videos and the other resources for modeling and for explaining the concepts. Once they find the right kind of resources from IT sources and provide them to their students, their job is just to monitor their progress. Students would involve in their discussion, and they learn the TL in a collaborative manner with occasional support from teachers during the class time. According to most of the teachers, it's easier to find great teaching resources online for presenting the teaching content, for providing explanations on any of the language related issues, and for modeling the target language and even for proving feedback. From all the discussions with teachers, it is understood that the only point at which teachers need to render their TTT is while giving instructions on the lesson contents, and while administering the lesson activities such as grouping the students and motivating them to take initiation to engage in the lesson activities.

Further, the table-4 provides the details of the websites, mobiles apps, digital instructional teaching content and the digital authentic teaching content that are available online just with internet as a resource. The table displays various online resources for teaching and learning and shows the teachers preferred applications for different aspects of their lesson activities. The teachers say that they just need to be creative enough to make use of the various online resources that could support them in minimizing their TTT and optimizing the quality of their teacher talk.

In the interview sessions many teachers talked about the use of digital tools, and the necessity of the related training sessions in enhancing the resourcefulness of the students in tapping the benefits of technology. In tune with the findings of Erkan (2019) and Siefert et al. (2019), many teachers hold that the use of digital tools and technology integration can enhance the students' learning experiences in English classes apart from the possibility of increasing STT, and the interactions amongst the students. One of the teachers say that by using technology teachers can assign the lesson activities online, including the instructions on what and how to do via the digital tools, and keep monitoring the groups with the minimum quantum of teacher inventions.

However, the use of digital tools and technology needs the students and some teachers to be trained about the usefulness of using technology and the technological skills for creating technology integrated lesson plans and class administrations. The other concerns in utilizing the affordances of technology are related to the affordability of technology. That mean all the students may not have access to technology due to the constraints such as financial deficiency and lack of exposure or enough technological training.

4. Conclusion

The study findings clarified that most of the teachers are aware of the teaching models and frameworks that were developed considering several linguistic and language theories proposed by the theorists like Stephen Krashen's, Jeromy Bruner and Noam Chomsky (Balboni, 2018, pp.9-11). The findings revealed that, in tune with the understanding of most of the teachers as well as with the guidelines provided in the language education frames works such as the Common European Framework of Reference for Languages of the European countries or the Common Standards framework of the United States, most of the teachers hold that CLT needs to follow the student-centered approach to English language teaching. And, as the core concept of CLT is to develop communicative competence (Hymes, 1972) among the English language learners, it is understood to be imperative to involve the learners in communicative acts within the language classrooms also. To facilitate student participation in communicative acts in English classes, it is indispensable that the language teachers need to provide as much of their classroom time as possible to their students to participate and practice communication in their target language.

It is already established that the objective of facilitating the practice of communication in TL, for the students in ELT classes, requires that teachers reduce their TTT as much as possible, simultaneously increasing their efforts to the increase their STT. This study further reinforces the statement, and while commenting on the awareness of the teachers about the importance of limiting their TTT, the study also highlighted on the teachers' awareness about the importance of the quality of their TT that needs to fulfill the purposes of providing introduction of the TL or the lesson content in a class, of triggering motivation needed for the students to participate in communication activities, and also of monitoring the progress of the students by providing the feedback in the positive way that encourages the students further to engage in communication practices. The findings revealed much positive support from the integration of IT in the lesson plans. It can be understood that IT integration, owing to the availability of volumes of unfathomable data relevant to EFL teaching-learning content, can even nullify the EFL teachers TTT simultaneously improving the student outcomes. The findings further revealed that although most of the teachers are of the view that they wanted to reduce their TTT, the usual time of their TTT is acceding what they planned in their TTT, which indicates the need for much better lesson planning, and practice further to gain better control over their lesson plans and class-time dynamics.

Another aspect of TTT to be noted is that although the teachers are in favor of reducing their TTT they point out the requirement for improving the quality of TT, improving their resourcefulness in using IT and integrating IT in their lesson plans, which can further reduce

their TTT, and improve their teacher effectiveness apart from providing more time for their student-talk. With regard to the quality of language and the interactions needed between teachers and students, it can be inferred that whether the teachers use the regular IRF or inferential questions (Cullen, 1998), the questions; need to be easier to understand and so the language has to the simple; need to initiate and generate discussions, need to be related to the day to activities of students; and need to be interesting and motivating to the students to actively participate in discussions with their classmates. Further, it can also be inferred that there is a great need for bringing about awareness among EFL teachers about the importance of reducing TTT and increasing STT through the integration of IT in their lesson plans either through Inservice teacher-training programs or by incorporating the training interventions in educational programs.

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