Active Listening through Active Learning Strategies Management

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Abstract: Listening is a fundamental skill acquired by any language learner. Nevertheless, listening skills are not explicitly taught in school; reading and writing take the informal lead education, and listening skills take a back seat. Learner motivation plays a significant role in comprehending audio data, such as lectures, speech, interviews, telephonic conversations, etc. This paper discusses how listening skills are given the least importance in the current education system. Listening skills are most often taken for granted and considered to be acquired quite naturally. Therefore, the paper will highlight the difference between active and passive listening and the strategies employed to enable learners to enhance the skill to improve other language skills, especially speaking skills. The paper will also discuss the factors that impede active listening and listening comprehension. To conclude, the paper sheds light on using various active learning strategies in conjunction with technology to kindle motivation among the learners and improve their listening and speaking skills.

Keywords: Active Listening, Active Learning Strategies, Speaking Skills, Listening Comprehension.

1. INTRODUCTION

Although listening is essentially the first language skill acquired by any human being, it is given the least importance when teaching the English language in Indian schools. No board tests students on listening and speaking skills consistently. Besides, listening skills are taken for granted and believed that is acquired naturally by learners; therefore, there is a shortage of focus in this area. The difference between hearing and listening is the concept of understanding and perceiving the information shared through communication; hearing is a biological ability to perceive the sounds without paying attention to what it was or where it came from, it is a mundane activity. On the other hand, listening is an activity that is done consciously. However, listening can be of two types Active and passive listening. Passive listening is when you listen to a song while typing a text, you may be enjoying the music but not paying any attention to the lyrics or what it means.

Active listening is making a conscious attempt to understand the content that is being spoken for a purpose. Active listening is a quint-essential skill required by any person and is used throughout one's life. For example, teacher lecture, News on TV or Radio, announcements in public areas, instructions, etc. In each of these cases, one closely listens to the content to understand the content wholly for specific details from the audio-data presented. Presently, listening skills are ignored vastly by many academicians and are the

least practiced skills in school. This skill gains more demand in a professional course like B.Tech. Most engineering students take up jobs in MNCs and are then trained to listen and comprehend a speaker. They are given language training during the course and intensive training during the first month of their employment. At this stage, the ignored skills (listening and speaking) are rekindled. This applies to many other professions, such as the aviation industry, Hotel management, Service centers, etc. Studies show that teachers are not trained to teach this particular skill as they are trained in other skills. A study by Swanson [6] suggests that teachers are not competent enough to teach listening skills; his survey of 15 textbooks used in teacher training course revealed that only 82 pages mention listening out of 3,704 pages.

2. LITERARY REVIEW

Some sample of definitions of listening as elicited by various researchers of the field is, listening is an ability to understand spoken language (Rankin, 1926). Listening is aural assimilation of spoken symbols in a face-to-face speaking audience situation, with both oral, visual cues presented (Brown & Carlson, 1955). A unitary-receptive communication process of hearing and selecting, assimilating and organizing, and retaining and covertly responding to aural and non-verbal stimuli. Thomilson's (1984) definition of listening includes 'active listening,' which goes beyond comprehending literally to the speaker's emphatic understanding. Empathy is another aspect that is essential to listening; it is a courteous attempt to identify and understand the speaker's perspective (Gordon, 1985).

A study by Wilt (1950) states that 45% of human communication is dedicated to listening, and 30% of communication time is utilized by speaking, reading, and writing takes 16% and 9%, respectively. Despite taking the majority, listening skills are given the least importance in our schools, probably because of the additional teaching and technological aids required. It is not formally tested during summative assessments. Nevertheless, the school's curriculum focuses on reading, writing, grammar, and vocabulary skills. Although listening and speaking tasks are integrated with the course syllabus, that content is either overlooked or kept aside to be dealt with later. The priority, once again, is given to the main content that is tested.

In a study by Burley Allen (1982), it is stated that the language skills that are used in real life are inversely related to the skills that are being focused on in the classroom. According to him, students get 12 years of writing, 6-8 years of reading, 1-2 years in speaking, and 0-1/2 year in listening. This was termed as "Inverted Curriculum" [6]; although this statistic may not be precise in India, listening skills are given the least priority is a reality. Studies have proven that educators believe that listening skills are developed naturally. Studies found that the weightage given to listening skills in the syllabus is more than what students are usually exposed to in classrooms.

Some researchers state that listening and reading, both receptive skills, may apply similar methodologies and learning strategies to enhance the skills. According to Choates and Rakes (1987), four steps would lead to improved listening skills. Firstly, the text concept should be made familiar by linking it to the students' existing knowledge, then developing a purpose of listening, using visual aids to reinforce concepts, and finally asking questions that would lead to both literal and critical response. Many other researchers asserted that developing a listening purpose would bolster the students' engagement in the listening activity.

Recent studies in listening skills suggested that listening is a multidimensional construct that consists of affective process, behavioral process, and cognitive process. All the three processes collectively build better listening skills. The effective process is where the learner is motivated to listen to others by the topic in discussion or presented, Behavioral process is a Verbal or non-verbal response such as eye contact or asking open-ended questions to

understand the subject or conversation better, Cognitive process is where a learner engages in comprehension, interpretation, and evaluation. This knowledge calls for the active participation of the learners in the learning environment. Thus, my study aims at understanding the role of active learning in enhancing listening skills. From various empirical studies, one understands that when the receptive skills (listening) improve invariably, the productive skills, in this case, speaking skills also will show some slight improvement. I hypothesize that if this improvement is consciously tended to by designing learning strategies, the improvement would be conspicuous.

3. FACTORS THAT IMPEDE IN CONDUCTING LISTENING SKILLS

As a part of my study, I have conducted brief interviews with the English teachers in the institution where I conducted my study. The data collected from the interviews with the teachers suggest that teachers believe certain common factors are why listening skills are given less importance. The reasons are as follow:

- The students are tested only on reading comprehension, writing, poetry analysis, grammar, and vocabulary. They are not tested on listening and speaking skills.
- The syllabus is so vast that it takes an entire academic year to cover the examination syllabus. There is hardly any time to conduct listening and speaking skills.
- Lack of technology/facility. (The school is a government-run institution, and the classes do not have any smartboards or computers to play the audio loudly.)
- Even if the arrangements are made, preparing the class for a listening activity disrupts the classroom management and therefore consumes more time without a desirable outcome.

As mentioned earlier, the points are summed by as this is what the teachers collectively think about when conducting listening or speaking tasks in the class. There are various other reasons why conducting speaking is a challenge. However, the focus of the study is listening skills. Being a teacher who has taught once, I was afraid of the chaos it would cause when conducting a listening and speaking session.

As discussed earlier, various studies have proven that teachers lack enough strategies and knowledge in training students in listening skills [6]. Therefore, the study advocates the efficacy of active learning strategies to make listening and speaking a regular class activity.

4. CHALLENGES THAT LEARNERS FACE WHILE ATTEMPTING LISTENING COMPREHENSION TASK

After a listening test was conducted in the class, a survey was conducted to understand the students' challenges while comprehending a listening task. From the data collected, the major challenges faced by students were most common among all the students who have taken the text, which is presented below:

Speed of the Speech

The speaker in the video or audio may be fast in speaking as the audio picked for listening are authentic and not recorded for a student's listening comprehension. The majority of the students found that the speech was too fast, and before they could make sense of the content, the audio is way ahead, and they lose complete track of the speech. Like in reading comprehension, a student cannot possibly go back to figure out the context of a particular statement or word, thereby making listening comprehension a more complex task. Besides processing the content, the listener will have to simultaneously comprehend the accent, tone variations, body language, and verbal cues while also comprehending the speech's content.

Limited Vocabulary

One of the major challenges is the limited knowledge of vocabulary that a student possesses. When the vocabulary is limited, most of the time goes into understanding a word and inferring the meaning. If the message is to be inferred, it would be utter chaos in the students' minds. Reading a text gives students to refer back to the context in which the word was used, but in listening, it is difficult.

Lack of Background/Conceptual Knowledge

The students' limited knowledge of the subject is also one of the major reasons why a student may not follow the audio data. This happens in comprehending an unknown passage, too, as the text's subject in many unfamiliar concepts explained in the video or text becomes difficult to comprehend. In listening, if a student fails to comprehend, s/he may find the following information to be overwhelming and would completely be abandoning the attempt of comprehension.

Lack of Learning Strategies

Learning strategies play a crucial role in accomplishing a task. The approach one adopts to learn will have major significance in the learning outcome, and the same applies to listen. A learning strategy should be made available to students to follow a pattern; they should be guided in a particular direction in comprehending the listening task. Reading the comprehension questions first before listening to the task as a glance at the question will give the students an idea of which information to look for is a strategy that would give some purpose. Therefore, there should be a learning strategy available for students to apply while attempting listening comprehension. Teachers should have a few strategies up their sleeves to engage students in strategic learning. The above-mentioned major reasons that bars learners from improving their listening skills and strategies need to be devices or adopted to improve the skills.

5. ROLE OF ACTIVE LEARNING STRATEGIES IN ACTIVE LISTENING

The active learning method is where the teacher involves students directly in the learning process, and learners are actively engaged, thus making the class a student-centric classroom. According to Bonwell and Eison [3], students participate actively when they are engaged in an activity besides passively listening to a lecture in a teacher-centered classroom. Active learning is based on constructivist beliefs; the primary belief is that the learners build their knowledge slowly from their existing knowledge, therefore making a deeper understanding of the concepts. Constructivists also believe that learning happens in a social context where students engage in meaningful conversations with peers or teachers in the target language. This involves students in a lot of active listening and engages them in real conversation, limiting the teacher talk. Active learning makes students more accountable for the work that they are involved in; it not only encourages students to think strategically as it banks on Bloom's taxonomy, which is a step-by-step cognitive process rising from lower-order thinking skills to higher-order thinking skills.

According to Bloom's taxonomy (1988), listening comprehension is generally administered to focus on lower-thinking skills such as remembering and understanding the two fundamental thinking skills. The activities only nudge students to look for specific information and restrict them from understanding the audio data in its entirety. Active learning approaches will enable students to engage in a more complex cognitive process with higher-order thinking skills such as evaluation and creating. Active learning also encourages students to reflect and develop their meta-cognitive skills, thus understanding the importance

of formulating a learning strategy in attempting a task. Student-centric learning, inquiry-based learning, and experiential learning are other major approaches that align with the active learning method; this enables learners to apply the knowledge acquired in a real-life situation, making them an autonomous learner.

Some misconceptions associated with this approach are that to conduct an active learning session, students will have to learn the concept themselves, and the teacher role is nullified. In reality, teachers play a significant yet subtle role in the active learning process. Active learning requires teachers to plan approaches suitable to their learner group and understand the learner group's dominant intelligence while selecting resources. S/he will have to plan a wide range of learning/teaching strategies that involve a strategic plan for scaffolding, student-friendly assessments that are regularly planned and conducted, teacher metacognition (a constant reflection of their classroom practices and redesigning the strategies based on the needs of the learners), lesson planning, etc.

According to an empirical study conducted by John Haitte (2011), he classifies a teacher as an activator rather than a facilitator, as an activator, the teacher is promoting learning through various strategies like direct questioning, the Socratic seminar method, and many more where the teacher and the resources that she uses will activate the learners' interest and learning. He also states that the effective size is greater when the teacher takes his/her role as an activator than a facilitator. Another major misconception about active learning is the chaos and possible disruption of classroom management and class strength. Teachers are afraid that planning an active learning class may wreak havoc and disrupt the general decorum with many students; however, studies say that with learner-focused questions. Clear instructions and meticulously planned activities that conduct students step-by-step to autonomy will make it possible to regularly conduct active learning sessions in class. Picking suitable audio/video resources to link the students to the concept is also a great exercise in engaging them in active listening.

6. ACTIVE LEARNING STRATEGIES THAT HELP IN CONDUCTING ACTIVE LISTENING

Some active learning strategies can prove to have shown improvement in the students' listening comprehension skills. Although there are numerous strategies listed under active learning strategies, the following proved exceptional in enhancing listening skills.

Reciprocal Teaching

Reciprocal teaching is initially developed for students who find difficulty decoding skills and comprehension skills by Palincsa, Ransom & Derber (1989). However, it gained the attention of various researchers and academicians who found the approach invaluable in teaching reading comprehension. It was not explicitly stated by the academicians who developed the strategy as a constructivist approach. Still, each stage spirals from testing the prior knowledge to the identification of purpose, or theme of the text to analysis, thus slowly raising the bar to higher-order thinking skills. The four stages are:

- Predicting
- Questioning
- Clarifying
- Summarizing

This strategy also displays scaffolding in the form of modeling. Teacher students dialogue and support, which is gradually withdrawn, making the learner a more autonomous learner. This strategy was a principal idea for improving reading comprehension; it also works the charm in listening skills. Students listen to the data to understand the text's purpose and

meaning in its entirety and then follow the same four stages. In listening, before presenting the audio-visual input, students are shown the title and introduction of the input to test their prior knowledge. Later, they in groups question each other based on their understanding of the data heard, discuss the possible answers, and consider others' opinions. Clarifying is the third stage where students discuss with their peers or teachers what they didn't understand. This may include understanding if any unknown vocabulary used or an obscure concept is encountered in the data. Finally, having made a complete sense of the input, students will write a summary, including all the main points. This process enabled learners to acquire a learning strategy to comprehend a listening task.

This strategy can be used to teach prose or even comprehend a telephonic conversation. The activity being a group activity will encourage peer learning and understanding the parts that are not clear with the group's peers. For this kind of activity, the suitable group type would be heterogeneous groups, and students are engaged throughout the discussion.

React to Video

This is another active learning strategy that can be employed in engaging learners in audio/audio-visual aid picked for the session. In this activity, the teacher gives the task beforehand and precise success criteria shared with the students, so they know what they are looking for in the resource presented. This will engage learners actively, and they are consciously participating in the listening task and comprehending the information. According to the study conducted by Munsterberg and Bigham (1892-93), involving the reaction to oral, visual, and combined oral, visual presentation, the result suggested that the oral-visual presentation was superior to either of the single presentations. Videos can be used for guided-learning, critical thinking, in-depth subject discussion, and conceptual understanding to promote active learning and improve active listening skills among the learners.

Graphic Organizers

Graphic organizers enable learners to organize the received information and comprehend the content better. There are so many theories that back the use of graphic organizers; otherwise, visual maps entirely perceive the information. Keywords and key concepts are easily identified by the students while processing the information. Graphic organizers specifically designed to facilitate learning and instruction of the context are visual and spatial symbols that describe the content, structure, and the key conceptual relationship of the text using line, arrows, and circles (Darch & Eaves, 1986). GOs provides a framework to organize the new information to the existing knowledge. Some of the theories that support GOs are Dual coding theory, Schema theory, and Cognitive load theory. Dual coding theory suggests that individuals align information, both verbal and non-verbal cues. Schema theory explains that students can connect the existing schema to the new schema easily with GOs' help. Cognitive load theory states that information overload may cause the information to lose. Still, the GOs help in reducing the cognitive load, and therefore, Graphic organizers are the best to encourage meaningful learning instead of rote learning.

It is best to use GOs in listening comprehension as the learner may not have the leisure to go back and listen to the recording again like one does while reading a text. Students will understand the comprehensively and link it to their prior knowledge, thus making the acquired knowledge meaningful and apply in a new context.

Listen to Understand and Listen to Speak

Extending a listening activity to speaking activities allows learners to internalize the concepts and allows them to understand the depth of understanding of the concept by the students. This will allow the teacher to understand successful methods, teaching resources, learner styles, etc. Listen to understand is to understand the speakers' intention

comprehensively and not look for specific details. Even if the task demands the students to look for specific details, a student should be taught strategies where s/he comprehends the text entirely and extracts the information from that. This also means that the students should infer the meaning of abstract ideas and understand the speakers' verbal and non-verbal cues. For example, while listening, some of the verbal cues one can look for to understand better the speaker are content to work, discourse markers, pauses, intonations, tone, sarcastic statements, etc.; on the other hand, some of the non-verbal cues are facial expressions, hand gestures, eye contact, etc.

Listening to speak is training students to reflect on what they have just heard and given their thoughts or opinions about it. This improves the learners' thinking skills and applies the concept they just learned in the real context and understood various classroom discussion perspectives. This practice will also encourage learners to use vocabulary (new vocabulary) they probably picked from the speakers and use it themselves in a context. If this is made a practice, learners also engage themselves in active listening to engage in meaningful conversations with their peers. Therefore, listening to speak activity will encourage learners to improve their listening and, ultimately, their speaking skills. The above mention active learning strategies are exceptional tools in enhancing the listening skills of the learners.

7. RESOURCES FOR LISTENING IN AN ACTIVE LEARNING SESSION

Resource picking is yet another significant task in teaching. "One size fits all" teaching approach has known to be a flawed practice, as students are different, and so are their learning styles. Students have a unique learning style and have dominant intelligence that is different from others. According to Howard Gardener's theory of multiple intelligence, students have different dominant intelligence; they all do not possess a single IQ. Based on the dominant intelligence, students have their learning styles and respond to a specific resource better than the other. Active learning enables teachers t to pick resources or device activities that encourage students of different learning styles to be involved. Some of the learning styles are visual, spatial, aural, verbal, logical, and social.

With cutting-edge technology, there are many resources one can find and use in the class to improve the students' listening skills. However, it is always better to expose students to authentic material and once can look up movie clipping, TedX talks, YouTube videos, interviews, News-reports, documentaries, inspirational speeches, songs, conversations, instructions, recipes, guide/tutorial videos, etc. use of these resources for other subjects like art, science, and Social studies will help a great deal in improving the language and listening comprehension of the students.

8. CONCLUSION

Active learning's principal idea is those engaging students actively in meaningful tasks in groups, pairs, or even individual activities call for varied resources. This can be used to the advantage of teachers and use authentic listening material in the classroom for the students to listen and comprehend, thereby exposing them to various content and types. Teachers need to devise strategies that suit their crowd and eventually understand the learners' dominant intelligence to use suitable resources. Therefore, the active learning method is best suited to teach listening and promote speaking skills in regular classes. There need not be separate sessions allocated for listening and speaking. That is when students become conscious and resist; if it is a regular practice to impart the content in the syllabus through these methods, these skills will invariably improve, and most of the barriers that are believed to be impeding the attempts to enhance listening skills are addressed by adapting to active learning strategies.

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9. REFERENCES

- [1] Anderson, A., and Lynch, T. (1988). *Listening. Oxford:* Oxford University Press
- [2] Armstrong, T. Multiple intelligence in the classroom. 3rd ed. Virginia, pp.5-12, 2009.
- [3] Bhopendra Singh, S. Suman Rajest, K. Praghash, Uppalapati Srilakshmi and R. Regin (2020). Nuclear structure of some even and odd nuclei using shell model calculations. *Proceedings of the 2020 2nd International Conference on Sustainable Manufacturing, Materials and Technologies. AIP Conference Proceedings*, 2020, https://aip.scitation.org/doi/abs/10.1063/5.0030932
- [4] Brown, J.I., & Carlsen, G.R. (1955). *Brown-Carlson Listening Comprehension Test*. New York: Harcourt, Brace and World.
- [5] Brownell, J. Teaching listening: Some thoughts on behavioral approaches. *The Bulletin*, 19-24, 1994.
- [6] Choate, Joyce S., and Rakes, Thomas A. "The structured listening activity: a model for improving listening comprehension," *Reading Teacher*, 41(2), November 1987, pp. 194-195
- [7] D Datta, S Mishra, SS Rajest, (2020) "Quantification of tolerance limits of engineering system using uncertainty modeling for sustainable energy". *International Journal of Intelligent Networks*, Vol.1, 2020, pp.1-8, https://doi.org/10.1016/j.ijin.2020.05.006
- [8] Darch, C., & Eaves, R. (1986). Visual displays to increase comprehension of high school learning-disabled students. *The Journal of Special Education*, 20, 309–318.
- [9] Desfiandi, A., Suman Rajest, S., S. Venkateswaran, P., Palani Kumar, M., & Singh, S. (2019). Company Credibility: A Tool to Trigger Positive CSR Image in the Cause-Brand Alliance Context in Indonesia. *Humanities & Social Sciences Reviews*, 7(6), 320-331. https://doi.org/10.18510/hssr.2019.7657
- [10] DeVito, J.A. The elements of public speaking (7th ed.). New York, NY: Longman, 2000.
- [11] Dr.P. Suresh and Suman Rajest S (2019), "An Analysis of Psychological Aspects in Student-Centered Learning Activities and Different Methods" in *Journal of International Pharmaceutical Research*, Volume: 46, Issue 01, Page No.: 165-172.
- [12] Dr. P.S. Venkateswaran, Dr. A. Sabarirajan, S. Suman Rajest And R. Regin (2019) "The Theory of the Postmodernism in Consumerism, Mass Culture and Globalization" in *The Journal of Research on the Lepidoptera* Volume 50 (4): 97-113
- [13] Dr.S. Suman Rajest Dr. Bhopendra Singh, P. Kavitha, R. Regin, Dr.K. Praghash, S. Sujatha, "Optimized Node Clustering based on Received Signal Strength with Particle Ordered-filter Routing Used in VANET" Webology, Vol.17, No.2, pp. 262-277, 2020.
- [14] E Laxmi Lydia, S Kannan, S SumanRajest, S Satyanarayana "Correlative study and analysis for hidden patterns in text analytics unstructured data using supervised and unsupervised learning techniques" in *International Journal of Cloud Computing (IJCC)*, Vol. 9, No. 2/3, 2020.
- [15] Ganguli S., Kaur G., Sarkar P., Rajest S.S. (2020) An Algorithmic Approach to System Identification in the Delta Domain Using FAdFPA Algorithm. In: Haldorai A., Ramu A., Khan S. (eds) Business Intelligence for Enterprise Internet of Things. *EAI/Springer Innovations in Communication and Computing*. Springer, Cham

- [16] Genova, K., Petkov, R. "Multiparametric MRI characterization of brain tumors and tumor-like lesions Pictorial essay" (2020). *Radiology and Radiology*, 59 (2), pp. 131-138.
- [17] Girish Bagale and S. Suman Rajest Roy Setiawan, Vijay D. Kulkarni, Mahmoud Al-Odeh, Nordiana Ahmad Nordin, S. Sam Santhose, Ismail Raisal, "The Impact of Corporate Reputation on Organizational Performance" *Productivity Management*, Vol.25, No.1S, pp. 668-681, 2020.
- [18] Gordon, Ronald D. "Empathy: the state of the art and science." Paper presented at the *International Conference of the World Communication Association*, 1985. 16pp.
- [19] Gupta J., Singla M.K., Nijhawan P., Ganguli S., Rajest S.S. (2020) An IoT-Based Controller Realization for PV System Monitoring and Control. In: Haldorai A., Ramu A., Khan S. (eds) Business Intelligence for Enterprise Internet of Things. *EAI/Springer Innovations in Communication and Computing*. Springer, Cham
- [20] Hattie, J. Visible learning for teachers & students. London: Routledge, 2011.
- [21] Hattie, J. Visible Learning for Teachers: Maximizing Impact on Learning. London; New York: Routledge, 2012.
- [22] Hattie, J., and Timperley, H. The Power of Feedback. *Review of Educational Research*, 77(1), 81-112, 2007.
- [23] Ismail Raisal and S. Suman Rajest Ardhariksa Zukhruf Kurniullah, Anjali Kulkarni, Nordiana Ahmad Nordin, Roy Setiawan, Girish Bagale, Rajesh Deb Barman, "Positive Outcomes of Human Resources Engagement and Impact on Motivation", *Productivity Management*, Vol.25, No.1S, pp. 638-667, 2020.
- [24] K.B. Adanov, S. Suman Rajest, Mustagaliyeva Gulnara, Khairzhanova Akhmaral (2019), "A Short View on the Backdrop of American's Literature". *Journal of Advanced Research in Dynamical and Control Systems*, Vol. 11, No. 12, pp. 182-192.
- [25] Kolb, D. Experiential learning. Upper Saddle River (New Jersey): *Pearson Education*, 2015
- [26] Leo Willyanto Santoso, Bhopendra Singh, S. Suman Rajest, R. Regin, Karrar Hameed Kadhim (2020), "A Genetic Programming Approach to Binary Classification Problem" *EAI Endorsed Transactions on Energy*, DOI: 10.4108/eai.13-7-2018.165523
- [27] M.A.Y. Peer Mohamed Appa, S. Kother Mohideen "An Efficient Approach on Fingerprint Ridge Enhancement Using Trinary Wavelet and Gabor Filter" (2020) *Radiology and Radiology*, 59 (S1), pp. 325-336.
- [28] Md. Salamun Rashidin, Sara Javed, Bin Liu, Wang Jian, Suman Rajest S (2019), "Insights: Rivals Collaboration on Belt and Road Initiatives and Indian Recourses" in *Journal of Advanced Research in Dynamical and Control Systems*, Vol. 11, SI. 04, Page No.: 1509-1522.
- [29] Mladenov, K., Hadzhiyska, V., Vasileva, D., Nikolova, P., Ilcheva, M. "The role of pet/ct in diagnosis and follow up of patients with extranodal localization of lymphoma" (2020). *Radiology and Radiology*, 59 (1), pp. 55-67.
- [30] Mukunda, K. What did you ask at school today? 25th ed. Collins book, 2009.
- [31] Palincsar, A.S. (1986). *Reciprocal teaching. In Teaching reading as thinking*. Oak Brook, IL: North Central Regional Educational Laboratory.
- [32] Petty, G. *Active Learning Geoff Petty*. Geoff Petty. http://geoffpetty.com/for-teachers/active-learning/2019
- [33] Rajasekaran R., Rasool F., Srivastava S., Masih J., Rajest S.S. (2020) Heat Maps for Human Group Activity in Academic Blocks. In: Haldorai A., Ramu A., Khan S. (eds) Business Intelligence for Enterprise Internet of Things. *EAI/Springer Innovations in Communication and Computing*, Springer, Cham

- [34] Rajest, S.S., Suresh, D. (2018). The Deducible Teachings of Historiographic Metafiction of Modern Theories of Both Fiction and History. *Eurasian Journal of Analytical Chemistry*, 13(4), emEJAC191005.
- [35] Rankin, P.T. (1928). "The Importance of Listening," in the English Journal, 19, October
- [36] Rao, A.N., Vijayapriya, P., Kowsalya, M., & Rajest, S.S. (2020). Computer Tools for Energy Systems. *In International Conference on Communication, Computing and Electronics Systems* (pp. 475-484). Springer, Singapore.
- [37] Roy Setiawan, Kanchan Rani, Luigi Pio Leonardo Cavaliere, Ngo Tan Hiep, Sudipta Halder, Ismail Raisal, Ruby Mishra, and S. Suman Rajest, "References for Shopping Online Versus in Stores What Do Customers Prefer and How Do Offline Retailers Cope with It?" *Productivity Management*, Vol.25, No.1S, pp. 874-898, 2020.
- [38] Sandercock, I. *How Does Active Learning Support Student Success?* Teach Online Resources for Teaching Online. /2013/03/how-does-active-learning-support-student-success, 2013.
- [39] Sharma M., Singla M.K., Nijhawan P., Ganguli S., Rajest S.S. (2020) An Application of IoT to Develop Concept of Smart Remote Monitoring System. In: Haldorai A., Ramu A., Khan S. (eds) Business Intelligence for Enterprise Internet of Things. *EAI/Springer Innovations in Communication and Computing*, Springer, Cham.
- [40] Shvets Yuri Yurievich, Shvets Irina "Threats to economic security in the healthcare system" (2020). *Radiology and Radiology*, 59 (S1), pp. 337-343.
- [41] Singla M.K., Gupta J., Nijhawan P., Ganguli S., Rajest S.S. (2020) Development of an Efficient, Cheap, and Flexible IoT-Based Wind Turbine Emulator. In: Haldorai A., Ramu A., Khan S. (eds) Business Intelligence for Enterprise Internet of Things. *EAI/Springer Innovations in Communication and Computing*. Springer, Cham.
- [42] Suman Rajest S, Dr. P. Suresh (2018), "Absurd Realism And Structure In Thomas Pynchon's The Crying Of Lot 49" in *Journal of Advanced Research in Dynamical and Control Systems*, Vol.10, SI.11, Page No.: 571-580.
- [43] Suman Rajest S, Dr. P. Suresh (2018), "The Problematizing of History Concentrated on The Poetics of Historiographic Metafiction by Postmodernism and How It Influences Postmodern Fiction" in *International Journal of Pure and Applied Mathematics*, Vol.119, SI.16, Page No.: 2457-2469.
- [44] Suman Rajest S, Dr. P. Suresh (2018), "Themes and Techniques from Modernism to Postmodernism: The Dubious Continuance of Gravity's Rainbow" in *International Journal of Pure and Applied Mathematics*, Vol.119, SI.16, Page No.: 2373-2384.
- [45] Suman Rajest S, Dr.P. Suresh (2019), "The Dialog on Postmodernism Intertextuality, Parody, The Talk Of History And The Issue Of Reference" in International Journal of Recent Technology and Engineering, Vol.7, Issue-5C, Page No.: 244-251.
- [46] Suman Rajest S, Dr.P. Suresh, "21st Century Learners' Student-Centered Learning Various Stages" in *International Conference, Age and Content in Journey of Language by VISTAS (Tamil Department)*, Volume: I, Issue I, April 2018, Page No.: 474-492.
- [47] Suman Rajest S, Dr. P. Suresh, "American Postmodern Novelist Thomas Pynchon's The Crying of Lot 49: Structure and Absurd Realism" in *Proceedings of the IOSRD*, 73rd International Conference on Future Trends in Engineering and Business (IOSRD), Volume: 73, May 2018, Page No.: 32-41.
- [48] Suman Rajest S, Dr. P. Suresh, "Impact of 21st century's different heads of learning skills for students and teachers" in *International Journal of Multidisciplinary Research and Development*, Volume: V, Issue IV, April 2018, Page No.: 170-178.
- [49] Suman Rajest S, Dr.P. Suresh. "Necessary Heads which are used for writing a Scholarly Journal" in *New Man International Journal of Multidisciplinary Studies*, Volume: V, Issue III, March 2018, Page No.: 5-21.

- [50] Suman Rajest S, Dr.P. Suresh, "The "Four Cs" Education For 21st Century's Learners" in *Research Guru Online Journal of Multidisciplinary Subjects (RGOJMS)*, Volume: XII, Issue I, June 2018, Page No.: 888-900.
- [51] Thomlison, T. Dean. "Relational Listening: Theoretical and Practical Considerations." Paper presented at the *Annual Meeting of the 5th International Listening Association*, 1984. 30 pp.
- [52] Thomlison, T. Dean. Relational listening: theoretical and practical considerations. Paper presented at the *Annual Meeting of the 5th International Listening Association*, 30. [ED 257 165], 1984.
- [53] Wilt, Miriam E. "A study of teacher awareness of listening as a factor in elementary education." *Journal of Educational Research*, 43 (8), April, 1950, pp. 626-636.
- [54] Witt, M. (1950). A study of teacher awareness as a factor in elementary education. Journal of Educational Research.
- [55] Zlatarski, O., Kirova, G., Lekova-Nikova, D., Krasteva, P., Koleva, V. "A PCR-negative, IgG/IgM antibodies-positive SARSCoV-2 patient: A false-negative dilemma" (2020). *Radiology and Radiology*, 59 (2), 115-120.