



Application of Innovative Pedagogical Theories for promoting Active and Adaptive Learning to suit Digital Humanities in the process of improving English Communication Skills among First Year students at the Diploma Level in Tamilnadu.

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Abstract : Recent research challenges conventional pedagogical approaches i.e., face to face teaching in a classroom atmosphere and advocates for more nuanced, context-sensitive teaching methods for students in the digital era. Hence, as per the need of Gen Zers who live with AI, the Directorate of Technical Education, Chennai has reviewed and revised the current landscape of English language pedagogy. This paper examines the reforms implemented in English communication skills courses, both academic and Advanced Skill Certification, and examines the pedagogical strategies used to support active and adaptive learning at the diploma level in Tamilnadu. In addition, the paper covers the assessment process, which encourages students to take an interest in honing their four fundamental skills— listening, speaking, reading, and writing. It also recognizes the efforts made to implement the three different forms of learning—traditional, blended, and exclusively online.

Index Terms - Pedagogical strategies, Active Learning, Adaptive Learning, Diploma Level, Innovative Practicum, Advanced Skill Certification courses, Traditional -Blended - Fully online mode of learning.

I. INTRODUCTION

The instructors are forced to adapt their pedagogical tactics to the needs of our Gen Z learners. The way that educators teach, both in theory and in practice, is known as pedagogy (pronounced "pdh-duh-gow-jee"). It is the study of how students acquire knowledge and skills in an educational setting while also taking into account the interactions that occur during the learning process. Conventional pedagogy has historically referred to a face-to-face teaching-learning setting; nevertheless, this has given rise to digital pedagogy. Hence, The Directorate Of Technical Education in Chennai has exposed the first year diploma-level students to all three forms of learning, since 2023 -2024 —traditional, online, and blended—through academic and Advanced Skill Certification (hereafter ASC) English language courses, catering to the needs of Gen Zers who have already incorporated AI into their life. Due to the fact that active learning is essential to student learning and happiness, the diploma program's current learning environment requires student engagement. This paper highlights the pedagogical strategies, three modes of learning and the assessment process implemented for the first year diploma students in Tamilnadu.

II. BACKGROUND AND LITERATURE REVIEW.

The syllabus for the subject English Language for the First year Students has been revised with the help of Active and Adaptive Learning Techniques for the diploma students. Moreover, two different types of courses have been introduced. One is Academic (Traditional) namely Communicative English I and II (hereafter CE I & II). The other one is ASC courses such as Basic English for Employability (Blended) (hereafter BEE) and Microsoft Digital Skills (Fully Online Mode) (hereafter MDS) encourage not only Active and Adaptive learning but also support to clear the barrier namely digital divide. The Assessment under these ASC courses also encourages students to understand their level of proficiency in English, which is unbiased.

II.1. Literature Review for Active Learning , Traditional Learning and its Assessment:

Active Learning (hereafter AL) approaches in English Language Teaching have gained attention for their potential to enhance student engagement and language acquisition. While traditional lectures may lead to passive and inattentive students due to

language barriers, AL methods encourage engagement and provide immediate feedback to teachers. (Kazi & Kazi, 2018). AL methods have shown positive impacts on students' abilities.(Amir & Suryana,2018). Key elements of active teaching methodology in English language classes include student interaction, initiative , explorative talk and diverse evaluation methods. (Doric & Petkovic, 2022). Implementation of these strategies has resulted in increased student enthusiasm, a livelier classroom atmosphere and improved learning outcomes. (Huraiyah,2020). Integrating ICT, integrated-skills approaches and formative assessment in general English courses leads to significant improvements across various language skills. (Waluyo, 2020).This underscores the importance of incorporating technology-enhanced AL strategies in English language education to meet evolving needs of learners and global workforce requirements.

II.2. Literature Review for Adaptive Learning , Blended and Online Learning and its Assessment:

Adaptive Learning (hereafter AdL) systems have shown promise in improving English Communication Skills across various proficiency levels. Adaptive learning systems aim to personalise content and assessment based on students' characteristics, including learning styles (Sfenrianto et al., 2018, Hosny & El-Korany, 2022).

This approach has been found to enhance vocabulary, grammar, listening, speaking, reading and writing skills.(Al-Sarayrah,2023 & Tan, 2024). Incorporating machine learning and natural language processing techniques can further improve the accuracy of adaptive learning models, enabling targeted training in weak areas. (Zhai, 2023). Adaptive Algorithms, such as the Weighted Feature Clustering Adaptive Learning (WFCAL), optimise instruction by clustering learning and tailoring content to their specific needs (Tan, 2024).

Overall Adaptive Learning Technologies cater to the individual learners' strengths and weaknesses.

Blended learning has gained prominence across various educational contexts, as evidenced by several systematic reviews. Bizami et al. (2022) highlight the integration of innovative pedagogical principles with technological tools, emphasizing cognitive factors that enhance immersive learning experiences. Jowsey et al. (2020) focus on pre-registration nursing education, identifying themes such as active learning and communication, which positively influence student achievements in distance learning environments. Ramalingam et al. (2022) explore blended learning in English as a Second Language (ESL), revealing themes like collaborative learning and technology-based methods, while calling for more comprehensive reviews in this area. Collectively, these studies underscore the effectiveness and evolving nature of blended learning across diverse educational settings.

Fully online learning offers numerous advantages, including flexibility, accessibility and individualised instruction tailored to students' needs (O.Begicheva et al., 2023: Chand et al., 2022). This method of learning plays a vital role in providing knowledge and skills necessary for success in the digital age, addressing skill gaps and enabling individuals to adapt to the changing job market. (Barman & Roy,2023). Online education fosters self-discipline, creates a focused environment and promotes efficient use of time.

III. Qualitative Method: Document analysis : content analysis

Merriam (1988) pointed out, 'Documents of all types can help the researcher uncover meaning, develop understanding, and discover insights relevant to **the research problem**' (p. 118). Documents provide a means of tracking change and development. Where various drafts of a particular document are accessible, the researcher can compare them to identify the changes. Even subtle changes in a draft can reflect substantive developments in a project, for example (Yin, 1994). The researcher may also examine periodic and final reports (where available) to get a clear picture of how an organisation or a program fared over time. The analysis of documents was instrumental in refining ideas, identifying conceptual boundaries, and pinpointing the fit and relevance of categories (Charmaz, 2003).

IV. **Data presentation:**

The revised scheme helps students learn English intuitively, develop language patterns and think in English. Instead of giving importance only to the writing skills, here, in the new syllabus, theory paper has been converted to a **Practicum**, a new innovative methodology, which is the most important requirement of polytechnic college students. In this practicum, all the four skills such as Listening, Speaking, Reading and Writing(hereafter LSRW) have been given equal importance under Traditional method of learning. It enables the students at the Diploma level to shed their inhibitions, to gain confidence in their approach and enhance them to face their career commitments with globalised standards. Apart from that, to clear the Digital Divide, the DOTE, Chennai has introduced ASC courses such as BEE, a blended learning course and MDS, a fully online course.

The new curriculum which encompasses all the four skills both in Academic and ASC courses:

Listening: Under listening skill, lyrical poems, short stories, conversation, scientific and technological passage, speeches of great personalities and listening to weather reports are included in the syllabus.

Speaking : Under Speaking skills, word game, useful day to day expressions, just a minute, introducing oneself and others, describing a product, describe oneself, converse a dialogue for the given situation, speech based on the given word cloud , frame sentences for the given homophones, attending mock interviews and group discussion are included in the syllabus.

Reading: Under Reading Skill, four types of sentences (Declarative, Imperative, Interrogative and Exclamatory) with intonation, Tongue twisters, story books and technical magazines that are borrowed from the college library, ethical passages, articles from newspaper, idiomatic expressions, Interpreting Graphics (pie chart, bar diagram, flow chart) into verbal are covered.

Writing: Under Writing skill, Academic letter writing, email writing, Sentence making using the given substitution table, note taking, paragraph writing, TEEL model paragraph writing, Punctuations, collocations of technical words, comprehending the info graphics or picture into a paragraph, Advertisement writing, completing the incomplete story and writing newscaption for news reports.

Theory: Poems and simple basic grammar have been included.

V. Data Interpretation and Discussion:

Various types of Pedagogical strategies that are applied in learning the basic four skills of CE I & II, BEE & MDS :

- 5.1. Active Learning: It is a student-centred method of instruction that motivates students to engage physically and mentally with the material being covered in class. It can involve a range of tasks that get them thinking, talking, researching, and producing.
- 5.2. Adaptive Learning: It is a technique to use data-driven instruction to adjust and tailor learning experiences to meet the individual needs of each student. AdL systems can track data such as student progress, engagement, and performance, and use the data to provide personalised learning experiences.

Some of the key strategies applied for Active and Adaptive Learning In CE I & II and ASC Courses are :

5.1.1. For Active Learning:

Communicative Activities such as role plays, language games, discussions, debates, group projects, and problem solving tasks encourage all the students to participate actively.

Pair and Group Work: To promote student interaction and collaboration along with the reinforcement of their language skills, conversation and group discussion have been introduced.

Authentic Materials: Students have been given exposure to utilise authentic materials such as news articles, videos, podcasts, and real-life texts and thus they are exposed to genuine language use and cultural contexts.

Language Input and Output Balance: This method ensures a balance between language input (exposure to new vocabulary, grammar structures, and examples) and language output (opportunities for students to produce language). This balance allows students to build both receptive (Listening & Reading) and productive language skills (Speaking & Writing). Students visit the Library regularly to borrow books.

Use of Technology: This method incorporates technology tools and resources, such as language learning apps, online platforms, interactive multimedia, and virtual communication tools, to enhance engagement and provide additional language practice opportunities.

Flipping the classroom: It would enhance students' knowledge retention in comparison to only traditional classroom learning. Perception of students towards online learning is vital as they felt it as personalised learning and easy navigation (Bedir, 2024), user-friendly (Bangga-Modesto, 2024), improves motivation in online core language courses (Arellano, 2024) and the need for regular content audits and updates (Qi, 2024).

Multimodal Approaches: It involves different learning styles such as visual, reading, auditory, writing and kinesthetic. The goal is to engage multiple sensory systems simultaneously. This approach engages students through a variety of modalities, including LSRW, as well as incorporating visual aids, gestures, and real-life examples. This caters to different learning styles and reinforces language learning through multiple channels.

5.1.2. For Adaptive Learning:

Content Distribution: Adaptive content provides feedback to student's specific responses such as hints, review materials or further scaffolding.

Data Collection and Analysis: The system monitors and collects data on the learner's performance as the learning process begins. Advanced algorithms and tools of Microsoft analyse the data to identify patterns, learning styles and competency levels. By applying the new methodology of Practicum and ASC credit courses, students, irrespective of rural and urban, are able to gain confidence in expressing ideas, and plans, interpreting the same in social and professional situations. They are able to frame grammatically correct sentences with clarity and coherence both in oral and written communication. They enhance the skill of analysing and evaluating the information with supporting ideas logically and coherently. They are able to communicate effectively using appropriate vocabulary and grammar in every situational context. Active and Adaptive learning strategies with all the three modes of Learning such as Traditional, Blended and fully online mode, provide adequate exposure and opportunities to imbibe, develop, practice and use LSRW skills and seek digital opportunities for further language development outside the classroom.

Assessment: Assessment has shown promising results in improving student outcomes and assessment efficiency. Regular Assessment and Reflection incorporate formative and summative assessments to gauge student progress and provide targeted feedback. Both traditional and adaptive learning assessment encourage students to reflect on their language learning journey, set goals, and actively monitor their own progress. The different assessment architectures led to superior learning performance among diploma level students in Tamilnadu.

Traditional assessment methods are designed to measure a student's knowledge, skills, and abilities in a structured environment. They include tests, quizzes, and written assignments. Teachers employ a battery of exams together with other processes to provide a comprehensive assessment of students' learning.

Jürgen Rudolph et al.,(2023) discussed "the future of learning, teaching and assessment in higher education in the context of AI Chatbots such as ChatGPT" in his paper "ChatGPT: Bullshit spewer or the end of traditional assessments in higher education?" He proposes that traditional methods of valuation must also be included even in this digital world. The purpose of traditional evaluation techniques is to gauge a student's knowledge, skills, and abilities in a controlled setting such as "physical closed-book exams where the students write by hand, using only pen and paper" (Cassidy, 2023) Written assignments, examinations, and quizzes are among them. Teachers employ a battery of exams together with other processes to provide a comprehensive assessment of students' learning.

Authentic assessments, which are a component of adaptive learning, measure student development through meaningful

application of information or skills or real-world activities, in contrast to traditional examinations.

The purpose of this exam is to tailor the material and evaluate the unique qualities of each student, including their learning preferences. This has a lot of promise to improve assessment accuracy, personalisation, and learning efficiency in a variety of educational environments by being specifically adapted to the requirements of the learners.

In summary, a polytechnic first-year student's English language proficiency is carefully evaluated on both fronts and is meticulously moulded to enhance their technical abilities.

FINDINGS:

This research study mainly focuses on the reformation occurring in English Language Education at the diploma level in the context of pedagogical theories, modes of learning and assessment. This study adopted content analysis under document analysis. This study explores the general benefits of the new methodology applied but does not elaborate on the specific merits and demerits of the Practicum and ASC Courses, individually.

The practical applications of the reformation in Pedagogy includes the following:

1. Active and Adaptive Learning can improve the quality of English Education and cultivate more English skills to meet social needs.
2. This article appreciates the application of all the three modes of learning in the academic campus itself.
3. This article also appreciates the introduction of a new method of Practicum credit courses which reduces the stress of learning a foreign language among diploma students.
4. The Assessment method proposed at the diploma level provides encouragement among students to learn English more.

IMPLICATIONS:

The review suggests that the digital divide is going to be cleared as the Directorate of Technical Education, Chennai, a Higher Education Department has paved the way for Digital Acceptance through ASC courses. Hence, a study investigating the effectiveness of Digital Acceptance in Higher Education might have practical implications for educators. The review also shows that the role of libraries play a major role in activating the reading skills of our diploma students, which was diminished after COVID 19. There may be an implication for further research on the role of libraries among Gen Zers in improving the reading skills of diploma students in Tamilnadu because of the changing curriculum. Though the students are Gen Zers, with the help of revised strategies, the institutional libraries may get a chance to flourish as our Polytechnic College Students in Tamilnadu visit the library to dust the books and turn the books to taste, chew and digest.

CONCLUSION:

The students get the possibility of actively engaged in improving all the four skills in Active Learning Pedagogy and the introduction of ASC Courses encourages Adaptive Learning and supports the students to learn step by step as per one's capacity of understanding by providing lessons and activities that are relevant to each student. By adding Listening skill exercises in the syllabus, even the rural background Tamil medium Government school students are motivated to listen to and sing English poems. Speaking Skill exercises such as Self Introduction, Describing a product etc., encourages them to speak in English voluntarily, which is the most essential skill that is needed for a technical student. Of all the skills, reading skill exercises drive the students to visit the libraries to borrow books and read with enthusiasm. Comic books and moral stories indirectly motivate them and shape them. Writing Skill, as usual, encourages them to improve their vocabulary as well as handwriting. Apart from that, the assessment methodology also supports the students to create interest in improving all the four skills. As both the AL and AdL theories are applied in all the three methods of teaching such as conventional, online and blended methods for polytechnic students, there is a positive scope for them that they will become not only technically sound but also sound in Basic English Skills. Regarding ASC courses, Authentic assessment emphasises the ability of learners to demonstrate their knowledge in a real and meaningful way. Assessment activities are not merely stating or intercepting knowledge that the learner already knows, but rather performing concretely from the knowledge and skills mastered. It includes tools such as observation and performance tasks. Overall, the Practicum paper is a must-follow strategy to induce interest in the English language among diploma students. While the book has strong content, mixing all the skills in both the papers would not be an appealing one and hence Communicative English - I shall concentrate only on receptive skills (Listening & Reading) and Communicative English II shall concentrate on productive language skills (Speaking & Writing). In the same way, ASC courses also shall go hand in hand with the Academic Courses; henceforth within a year, diploma students shall flourish ideally with all the four skills.

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her students from Chinmaya Vidyalaya Dr. T.S. Vivekanand, First Secretary, Consular and Community Welfare , Embassy of India , Beijing, China has published his collection of poems “ Cog Verse” and dedicated that book to this author in the year 2022.

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