Two Programmes to Demonstrate the Use of Digital Technology in Language Learning

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Abstract

The study presented here is part of an extensive study conducted by IT for Change between 2015 and 2017, across 16 government schools in south Bengaluru. This paper discusses the findings from four of these schools. Through a discussion of two programmes, the paper shows how digital technology can be used effectively in the classroom to enhance the language competencies of students. The programmes were designed collaboratively with teachers. The study captures the opinion of four teachers, who were collaborative partners in the study. The paper concludes that appropriately designed digital tools enable students to learn a language and helps to foster collaboration and leadership qualities among them. This is a revised version of the paper presented at the seminar "Teachers in the Scenario of School Education", held at Mysore in April 2018.

Introduction

Meaningful use of digital technology in language learning helps to develop essential language skills and provides opportunities to all students to participate equally in learning. It enables students to think and speak spontaneously and foster a learner-centric classroom learning experience. This paper is part of a study jointly conducted by IT for Change and language teachers in 16 government high schools in South Bengaluru from 2015 to 2017 (Annual Report 2014-15). Of these, four schools located respectively in Dommalur, Ejipura, Jayanagar and Tank Garden were selected for this paper. The purpose of the study was to demonstrate to teachers how to use digital resources such as mobile phones, computers, and some self-made online language applications through two programmes that use digital tools for enhancing the language skills of students.

The study was conducted in four Urdu medium schools in class 8 with Kannada as the second language. The paper describes how digital media was used to enhance the language competencies of students and improve their leadership and collaborative skills. The study started with a baseline assessment of the listening, speaking, reading and writing abilities of students. The findings of the baseline assessment are not presented here since it is not the purpose of the study to evaluate the impact of digital resources on the language competencies of students. The paper consists of two parts; the first part discusses the use of digital resources in the two Information and Communication Technology (ICT) programmes, namely, *Nudi Sampada* [A treasure trove of words] and *Bhitti* [Newsletter]. The second part of the paper discusses the teachers' views on how these two ICT programmes have influenced students.

Design of the Programmes

The two programmes are based on the belief that the use of technology in language learning is a pedagogical process rather than a technology process. The design of the programmes reflects the four pedagogical principles of the National Curriculum Framework (2005) namely,
(i) to link knowledge with outside school environments,
(ii) to focus on meaning-making (and not rote memorization),
(iii) to enrich the curriculum by going beyond textbooks, and
(iv) to adapt assessment practices to classroom learning and specific needs of students.
The State curriculum was analysed, and curricular adjustments were made to suit a specific classroom and levels of learning to support the pedagogical process. The curricular analysis and adjustments were conducted by a team which comprised language specialists, teachers from the school under study, teachers from other schools and members of the study team. The emphasis was on using a variety of digital formats such as audio, image, video and text, to strengthen language skills.

The Process

The two ICT programmes, *Nudi Sampada* and *Bhitti*, were jointly developed by our team and the teachers. Since the team had been working with the teachers for over two years, the teachers were familiar with the digital resources as well as the members of our team. This familiarity proved helpful in jointly developing the design of the programme. The teachers suggested that the programme was suitable for Class 8 students since they were not burdened with preparing for the Senior Secondary Leaving Certificate Examination (SSLC). The teachers

explained the programme to the students of Class 8 and provided support to them throughout its implementation. They also helped to publish the output of the programmes. The two programmes are briefly detailed as follows.

Nudi Sampada [A Treasure Trove of Words]

The *Nudi Sampada* Programme was implemented in class 8, at the Dommaluru School. The purpose of the programme was to increase the repository of words and creative expressions through digital quizzes and poetry recitals. The students took responsibility for the creation of digital quizzes for other students of their class and in a few other classes. They consulted books in the library and went through the textbooks of 6, 7 and 8 classes to create quizzes along with their answers. They also motivated students of other classes (6, 7, 8, and 9) to participate in the digital poetry recital programme using audio resources. These activities allowed for creative self-expression, mutual dialogue, exchange of ideas, and social adjustment among students. Students of other classes (6, 7, 8 and 9) who did not participate were invited as audiences for such recitals and quizzes.

The students enjoyed the process of creating quizzes. They also got a lot of admiration and praise from other students. These two experiences contributed to an increase in the use of digital resources. Besides the quizzes and the poetry recital, the students also took responsibility for the publication of the resources at the end of the programme. With the help of teachers, they uploaded videos of quizzes, poetry and other digital resources. The use of technology added a fresh dimension to pedagogy and sparked the students' engagement with learning.

Bhitti [Newsletter]

The second programme under ICT was that of the school magazine at Dommaluru School called *Bhitti*. Digital media was used for content collection for the magazine. Here again, students took the lead. They decided the content and were also responsible for creating and distributing it. The teachers facilitated these sessions. The editorial team functioned on a rotation basis, which ensured that every child got the opportunity to be part of the editorial team. The content of the magazine consisted of hand-written pieces in any language the students felt comfortable in, along with relevant photographs. Writings in several languages paved the way for multilingual learning and learning beyond textbooks. With the help of teachers, the hand-written content was converted to digital content and the digital version of the magazine was prepared. The magazines were then distributed to other schools through WhatsApp and Telegram. Subsequently the magazines were published on the school's website.

Learning from the Two Programmes

The two programmes show that digital resources such as audio and video clips, images, and text provide multiple possibilities for students to meet the core competencies of language. For instance, students used mobile phones and computers to listen to songs and stories, to record songs, replay and edit sounds, recite or retell them, as well as download and print them. Digital tools were also used to display and discuss images and videos, create word lists and write short essays using these lists. These digital resources simultaneously catered to the needs of multiple language-speaking groups in the same class. Students were motivated to write on any topic in any language they felt comfortable in. After

participating in this programme, the eagerness to learn was markedly visible among students. The number of students who completed their homework increased, and more students were able to express themselves in class without hesitation. A few students who were having difficulties in word identification were able to write simple words.

The use of digital resources enhanced the self-expression among the students. For example, students listened to an audio description of how a thief was caught by a policeman while trying to enter a house. They first imagined the story, then said it out loud, and finally wrote about it. The opportunity to write based on their imagination allowed for a more creative expression. The use of digital resources also created opportunities for students to develop leadership capabilities, coordination and collaboration skills. It gave students a distinct advantage compared to traditional classes without access to such resources.

Teachers' Opinion

We talked to teachers who were part of the digital study team to get a flavour of their opinion on the use of digital resources for language teaching. The teachers gave their opinion in Kannada. The highlights from the teacher's responses have been paraphrased in English and presented as follows. The real names of teachers have been used here, with their consent.

• Kannada teacher of Tank Garden School - Srimala Bhatt
The digital resources focused on teaching concepts with an emphasis on understanding, creative expression and appreciation in Kannada, English, and Urdu, and on allowing students to express their opinions. Students listened to bird and animal sounds and were asked to identify them. To improve their writing abilities, students used digital technology to create a sequence of pictures and talk

about the story conveyed by them. This process triggered and sustained the interest of students. The use of digital resources also allowed the use of multiple languages and made learning more effective.
For the Kannada version of this teacher's opinion, click on https://karnataka education.org.in/KOER/en/index.php/GUH S_Tank_Garden#.E0.B2.95.E0.B2.A8.E0.B3. 8D.E0.B2.A8.E0.B2.A1.2FKannada.

• Head Teacher of Tank Garden Urdu High School - Nahid Fatima
In the beginning, our students were struggling to read Kannada. Now, their reading has improved slightly. One can say that the use of digital technology has brought about this change.

• Kannada teacher of Ejipura Government High School - Saroja
I had earlier thought that digital technology lessons were limited to math and science. However, after learning the possibilities of using it for teaching various aspects of language as well, my enthusiasm has increased. There is certainly a change in students' learning.

For knowing more about teachers' opinion on digital technology and the community of learning, click on these two links:
a) https://www.youtube.com/channel/ UCqgyxozUJgAxjBoSJNKbqWA
b) https://karnatakaeducation.org.in/ KOER/en/index.php/GHS_Dommaluru#. E0.B2.B6.E0.B2.BF.E0.B2.95.E0.B3.8D.E0 .B2.B7.E0.B2.95.E0.B2.B0.E0.B3.81.E0.B2. 97.E0.B2.B3_.E0.B2.A8.E0.B3.81.E0.B2.A1. E0.B2.BF_.2F_Teacher_speak

Challenges

Despite the potential of technology in teaching, learning, discussion and evaluation, there are specific challenges. These include erratic power supply, lack of access to computers and internet in schools, scheduling problems due to lack of extra classrooms, lack of awareness of technology, inadequate knowledge of

integrating technology in the curriculum and the limited scope of seeing immediate results from the use of technology for learning. These challenges, however, do not undermine the value of integrated technology pedagogy as a meaningful approach to learning.

Conclusions

- This study shows the value of integrating technology with pedagogy. The creation of a digital learning resource environment made it possible for each student to participate in the learning process.
- The group activities, interactions, discussions, debates, and analyses conducted by the children facilitated collaborative learning in the classroom.
- This approach helped students reach their potential, overcome their shyness or initial hesitation. It also closed the gap between teachers and students and increased their joint engagement in the learning process.
- School teachers reported an improvement in attendance as well as greater interest among students to learn.
- When compared to other approaches, it may not be out of place to say that a technology-based pedagogical approach is more teacher and learner-friendly.

The use of technology in pedagogy is full of challenges. Notwithstanding these challenges the technology-pedagogy integration is scalable since most schools in the city have computer and internet facilities, allowing them to adopt this approach. The main requirement is for teachers to be familiar with the use of ICT for pedagogical purposes.

References

IT for Change. *Annual Report 2014-15. Looking back at a fruitful year: Education*. https://itforchange.net/Annual%20Report%202014-15/

National Council for Educational Research and Training. (2005). ರಾಷ್ಟ್ರೀಯಪಾಠ್ಯಕ್ರಮನೆಲೆಗಟ್ಟು [*National Curriculum Framework* 2005](S.S. Yadurajan, Trans.). NCERT.