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TECHNOLOGY-ENHANCED LEARNING (TEL) FOR THE JAPANESE LANGUAGE : AN ONLINE COLLABORATIVE APPROACH

M.K.Patkar
Research Student
Department of
Computer Science,
Shivaji University,
Kolhapur,
Maharashtra, India

V.S.Kumbhar
Assistant Professor
Department of
Computer Science,
Shivaji Univesity,
Kolhapur,
Maharashtra, India

K.G.Kharade
Assistant Professor
Department of
Computer Science,
Shivaji Univesity,
Kolhapur,
Maharashtra, India

R.K.Kamat
Vice-Chancellor
Dr. Homi Bhabha
State University,
Mumbai,
Maharashtra, India

ABSTRACT : This paper presents an online collaborative approach called Technology Enhanced Learning (TEL) that uses a multimedia-rich and engaging approach to teaching Japanese in English-speaking countries. TEL can be an effective language-learning method for adult learners who want to "pick up" curricular information in curricular areas without going through years of expensive training. Through a series of active learning sessions and self-study, the approach allows learners to interact in creating online content on topics including kanji writing practice, hiragana and katakana development, grammatical points, cultural information associated with Japan, and much more. The learners develop their knowledge by reading pre-written articles in the Japanese language, discussing them with peers in a message board format, and then translating them into English for uploading. The Learning progresses as the learners interact with one another. The paper presents a step-by-step learning process to demonstrate how TEL can be implemented in university courses.

Keywords : Technology Enhanced Learning (TEL), Japanese, Language Acquisition, Online Collaborative Approach, University Classroom

I. Introduction :

Since the Internet boom, Web 2.0 and online collaborative activities have become integral to many people's lives. Millions of online users worldwide are connected through various websites, and users can create content at the same place where it is viewed or used since their works are located on their personal computers or websites. This has made new Web 2.0-based language learning possible.(Algabri H. K et al., 2021)This is a boon for those who want to learn Japanese because Japanese is one of the most difficult languages to learn. The development of websites, blogs, and videos allows learners worldwide to connect and interact on various topics, including the Japanese language.(Katkar S.V et al., n.d.) As the number of online resources for learning Japanese increases daily, there is a need to develop a Technology Enhanced Learning approach that uses these resources. This paper presents an online collaborative approach called Technology Enhanced

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Learning (TEL) that uses a multimedia-rich and engaging approach to teaching Japanese in English-speaking countries(Algabri, H. K. et al., 2021).

The paper presents a step-by-step language learning process that shows how TEL can be implemented in courses that use Web 2.0 technology intending to promote Japanese language communication through active Learning, which aims to facilitate immersion into the Japanese language by interacting with the learners, thereby avoiding passive and audio based methods of communication.(Mendagudli, M. G. et al., n.d.)

II. History of Language Learning :

It has been 1965 since the first call for a change in language teaching. Since then, numerous books have been published to advise students on studying a foreign language. Since then, computers have become increasingly easier to use and an important part of people's lives. People can communicate with each other by using computers, emails, phones, and many more.(Spolsky, B. 2010)

In the early 1960s, language learning mainly consisted of rote Learning, which trained students with skills to "vocally reproduce" words, phrases, and sentences within a text. The belief was that by repetition of these words and phrases, a student would eventually understand what they said themselves. Although this method was largely successful, it did not involve translational ability because all the Learning involved memorization. If the student could not "vocally reproduce" language and translate it, they would be hard-pushed to communicate in a foreign language. A student was required to listen only and repeat after the teacher without any questioning, thus limiting their ability to learn. The teacher would tell what the students had done in class and how well they had done. The students were expected to listen and repeat what they were told. Although this system was effective, it did not allow students to learn actively. (Patil, B. P et al., n.d.)

That all changed in the second half of the twentieth century when audio and new technologies were applied in language teaching. Audio devices were developed to allow the student to listen and repeat after a tape recorder or teacher who recorded their pronunciation. The tapes helped students with their pronunciation but did not allow them to understand the language they were learning.(Manoban, A. 2021)

The use of computers in language learning started to become more prominent in the middle of the twentieth century. Spolsky & Young (2008) offer a detailed history of how computers were used in language learning. They focused on developing a computer-assisted language learning (CALL) system and its use. In 1977, Rod Ellis proposed an approach that uses computers and multimedia technology to teach languages to solve many problems related to traditional methods. One of the problems of conventional methods is that the students are expected to focus on a

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new language for several hours every day, and their ability to learn the target language decreases as their interest in the recent language decreases. Ellis (2008) claimed that by using computers, students could be motivated to speak the languages they were learning more and improve their knowledge because they had an opportunity to use them. Ellis (2008) also suggested that learners were empowered by using computers and forced to work when communicating with others. Another problem with traditional methods was that students would only speak English when learning languages. Ellis (2008) proposed a system in which learners must communicate using English and their learning language. Using the computer, students would be forced to learn a new language by interacting with each other and translating their sources from English. The learners would have an opportunity to interact with speakers of other languages because they could use the computer while they learned.(Ellis, R.)

III. Implementation framework for Web 2.0-based TEL : A Collaborative Approach :

This section presents a technology-enhanced Learning (TEL) framework based on the collaborative approach. In TEL, unlike traditional teaching, learners are regarded as active and competent participants in constructing their knowledge and sharing it with others. TEL can be an effective means to enhance access for learners in many fields of practical and theoretical knowledge. Likewise, in Japanese language education, which has been traditionally teacher-cantered and class-based, information technology has been limited because of the dominance of print-based media such as textbooks and workbooks.(ZubaProkopetz, R.2021).This paper discusses the potential of Web 2.0 (W2.0) and the collaborative approach for effective TEL in Japanese language education by taking a research project as an example. We call this framework TEL based on the collaborative process. The characteristics of the framework are: (1) it is based on a paradigm shift in how educators think about Learning and teaching; (2) it is W2.0-based; (3) it involves learner participation with social networking tools; and (4) it is based on a cooperative rather than a competitive model of learning within a unique community of learners who share a common interest and goals related to the target language. In our project, learners develop and share dynamic multimedia e-portfolios to demonstrate their language ability and competence. (Sacha Kiffer 2021)

IV. Details of The Tel Framework :

The Web 2.0-based learning environment consists of five hierarchical levels: The TEL framework was tested with a project on developing knowledge on oral fluency of beginner learners of the Japanese language based on their own experience. A total of 32 beginners students participated in the project, among whom 40% (n =

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12) were female and 60% (n = 20) male, with a mean age of 21.3 years (SD=1.7).(Lam, R. 2020) It is shown graphically as follows,
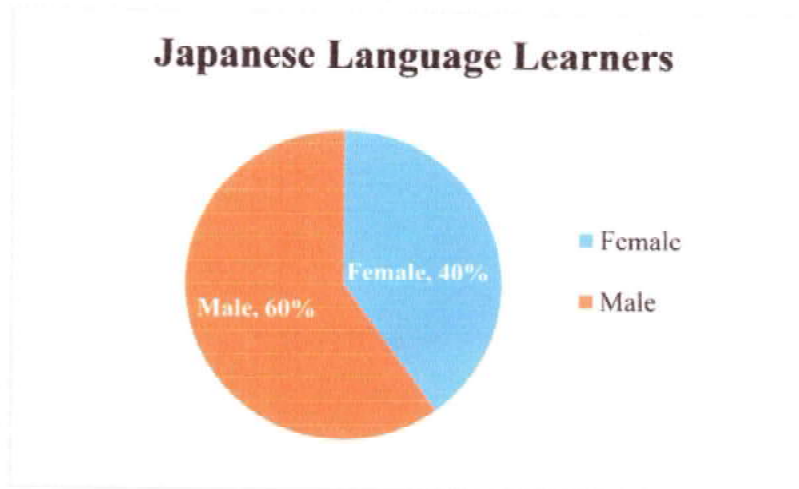
Japanese Language Learners

Fig. 1: Participation of learners during the project

They came from various backgrounds, such as universities, preparatory schools, internships, and summer camps. The learners visited the project website and registered as members. Members can operate at any of the levels within this framework. They can also become co-creator, authors, editors, or publishers for the materials of their choice in the collaborative environment. The learner could also comment on, rate, and like others' work to share their knowledge openly. (Naikwadi, B.H. et al. 2021) Learners were encouraged to share what they know and what they intend to learn to help each other learn more efficiently in a socially networked way. As described below, we discuss how such a level-based and W2.0-based collaborative approach can be implemented in Japanese language education. (Sulistyo, T. et al. 2020)

Another learning opportunity for learners is to share their experience with the target language by producing and sharing e-portfolios. These e-portfolios are dynamic media tools in the form of digital photos, videos, blogs, wikis, or web pages that can be accessed from any location and at any time. According to Takahashi (2008), dynamic multimedia portfolios include static ones, such as digital photos and videos, blogs, and active media, such as web pages. (Soodeh Babaee2020). These dynamic media are for tracking and sharing learners' progress. Learners can develop their e-portfolio with interests or topics concerning the target language learning. The content of their e-portfolios may be diverse such as learning materials, blog entries, academic papers, movie reviews, and personal reflections.

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Learners can also create a friends list of learners who share common interests and projects they have worked on together. This collaborative approach is flexible and allows learners to achieve more than they could in a single project or individually.(TuomiIlkka, 2018)

V. Collaborative TEL Framework : Features

As described above, the collaborative TEL framework includes several key features and elements: As we consider the collaborative approach, learners must have a common goal and mission. In our development reported in this paper, learners are encouraged to form or join like-minded people with similar interests. The mutual goal of each group is discussed and agreed upon. Then each group selects one or more topics they would like to learn to achieve their common goal.(Language Learning Centre Annual Report2017) These topics can be diverse, including social skills, effective communication skills, cultural insights on a specific region or country in Japan, oral fluency or even pronunciation, etc., depending on their specific purposes as learners. The topics the learners use may be more specific or of general interest to some learners than others. For example, the target learner's mother tongue is English, but she would like to learn about Japanese culture to become closer to her Japanese boyfriend. (Chougale, N. P., et.al 2021).Japan's common theme was "cultural insights on a certain region or country". Thus the group selected three topics related to this theme: "Japanese history and culture", "Japanese food", and "Japanese traditional arts." Each group defines a person as a team leader (TL) responsible for gathering relevant information and resources that might be useful for their group project. TLs develop their plan and schedule of action based on their group's agreed-upon common goal and mission(Margaret J. Marshall,2017) This can be, for example, a plan for a collaborative e-portfolio or planning for a photo and video exhibition. Each group member can freely design and create his/her multimedia e-portfolio and upload it at their own pace. The content of the e-portfolios may be diverse such as learning materials, blog entries, academic papers, movie reviews, and personal reflections. Learners are encouraged to share what they know and what they intend to learn to help each other learn more efficiently in a socially networked way. As learners complete their projects, they can participate in the group project by commenting on others' work or giving ratings of one's work to share openly.(Mathew Montebello,2016)

A. Pseudo code for TEL : The workflow of TEL can be illustrated by using pseudo-code as follows;

START

        Form or join a Japanese group

        Select common interest in the Japanese language

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Select team leader

The team leader selects a plan and schedule

Discuss common interest

Share language knowledge

Complete the project

Participate in other projects

Provide ratings

END

Discussion scenarios are mentioned in the following tables: As mentioned earlier, learners select common interests and do discussions based on the specific topic. e.g., If common interests are Japanese Culture or Japanese Food, language discussion will result in relevant vocabulary, books, or website links. (Ahmet Erdost Yastibasa,et.al 2015)

Table 1 : Learning through Common Interest

Common Interest	Vocabulary	Website Links	Books
Japanese Culture(Bunka 文化)	Shakai,iubi, Wabi	https://www.japanvisitor.com	Daido Moriyama Ikigai,Marigoto Japanese
Japanese Food (Shokumotsu 食物)	Taberu,asag ohan,bangoh an	https://www.tofugu.com	Kuniko's Recipes Futomaki Sushi Roles
Japanese Traditional Arts(Dentō geijutsu伝統芸術)	Shodo Ikebana Ukiyo Shikki	https://theculturetrip.com	Ikebana Masters Book on Ikebana

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Japanese Movies (Eiga 映画)	Engi,kamera, sutori,sakka	https://www.skdesu.com	Yotstusnba,Kodomo to Yomu Nihonno Mukashi Banashi

VI. Summary and Conclusion :

As described above, the W2.0-based collaborative approach is a new concept yet has some applications in many areas. One of the uses of this framework is to teach foreign language learners more effective interaction skills. Not only can this be effective in helping learners integrate into the host culture, but it can also give them an effective way to learn languages through social interaction and peer evaluation. This collaborative approach is essential for learners who are not used to communicating with their peers or others and may have difficulty establishing good social relationships in their host country or region. (C. K. Ang,et.al 2015)

In the collaborative language education project, learners were encouraged to share what they know and intend to learn to help each other learn more efficiently in a socially networked way. As described above, we discuss how such a level-based and W2.0-based collaborative approach can be implemented in Japanese language education. (Liviana Ferrari,et.al 2012) This study used the collaboratively-supported Japanese teaching model to improve level 2 learners' oral communication skills. In the pilot program, we invited learners to join the online discussion boards and test surveys used as a part of our collaborative approach. To examine the usefulness of this approach, learners completed a pre-test and post-test on their listening and speaking skills (Farhang Jaryani,2011). After that, they participated in the online discussions and completed another survey after six weeks. Results showed that all students improved their listening comprehension scores, while three students' speaking scores increased significantly. Furthermore, students' post-test survey results showed that the collaborative approach was highly effective; the students were happy to participate in the collaborative teaching method and actively participated in the discussions. (Patricia W.et.al 2009).We find evidence that the learners were improved by learning with each other.
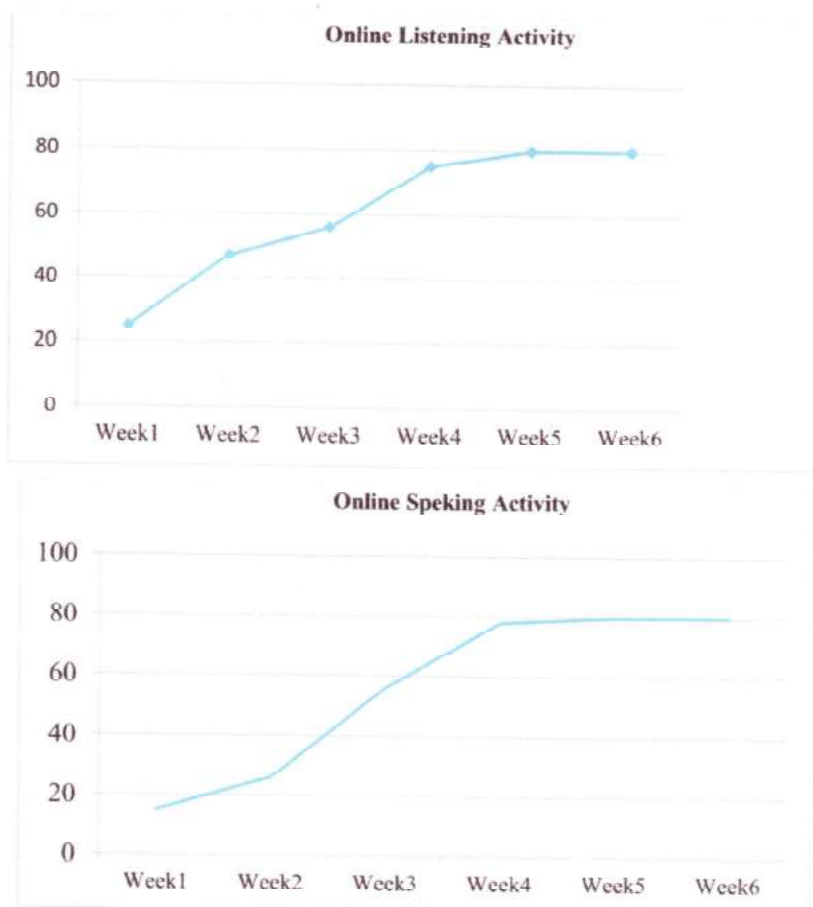
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Online Listening Activity

Online Speking Activity

Fig.2 : Improved Online Listening and Speaking Activities

The W2.0-based collaborative approach introduced here is a new concept with some applications in many areas. This is mainly because W2.0 is best suited for problem-based Learning and network-supported interaction among peers (users of online platforms), promoting topic understanding, peer evaluation, and interdisciplinary discussion. The above approach is quite flexible and can be applied to various educational activities.

In sum, the collaborative approach introduced in this paper is an innovative approach to improving listening and speaking skills and a new model to integrate technology education into teaching. The key point here is that learners are encouraged to interact with each other, share their knowledge and ideas, discuss

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problems, communicate daily, and help each other improve their language abilities by providing feedback. The most important thing is integrating technology into the teaching process to practice speaking and listening effectively whenever they need help from others.

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