



CAN-8 Virtualab: A Virtual Language Laboratory and Learning Management System (LMS): A review and Justification for its Adoption in Nigeria Universities

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Abstract

The CAN-8 VirtualLab offers all elements of the learning environment, including content distribution and development, student administration, class and lesson planning, and upholding the confidentiality of student and instructor work. This complete system is simple to use for instruction and testing in a classroom setting as well as for remote learning for members. The system was created with efficiency in mind, so it only takes a few seconds for teachers to assess students' work and focus on the students who need the most assistance. Students also appreciate how easy it is to access classes and how they can get individualised instructor comments as soon as their work is graded. Although the CAN-8 Virtualab can transmit a wide range of educational resources, the system is tailored for language training, making it feasible to deliver training materials in a variety of First Nations languages. There is also a lot of First-Nations Syllabic character support hence a need for the review of this virtual lab as it holds enormous benefit to language education.

Keywords: CAN-8 VirtualLab, language laboratory, learning management system, virtual laboratory

Introduction

English language is the official language of business and commerce worldwide. The four main linguistic skills required to learn a new language must be well-understood. In language laboratories, students learn languages using a variety of techniques, including speaking, writing, listening, and reading. However, giving students the chance to interact with various items in the language lab can aid in their language learning and development. Language labs are used to make the learning environment for languages better, to make the teaching methods more fascinating and effective, and to increase conversational skills while having fun. Language laboratories are a great place to test one's abilities, study under the guidance of teachers, practise speaking, and measure one's speech. Language labs help students become more motivated, overcome their fears, and adjust (Yau & Cheng, 2012; Oz, 2015; Manurung, 2015; Kilickaya, 2015). However, it seems that physical laboratories are becoming less and less common as private universities switch to classroom smartboards (El-sayed, 2022). Carruthers (2015) asserts that common language laboratories have a number of challenges, including ineffective lab teaching resources and negative feedback from the professors and students.

Now, instead of waiting until the students reassemble in a classroom setting to correct students, teachers can now work synchronously and in real-

time with students individually, in pairs, and in groups thanks to the development of virtual laboratories (Mahmoud & Taha, 2022). The virtual language laboratory is equipped with information and communication technology (ICT) tools, which allows students to listen to courses and respond to questions in real-time while an instructor assesses their progress. In this environment, students' language abilities are developed in a meaningful and conversational manner.

Information and Communication Technologies (ICT) applications have evolved into important tools for education and development since technology altered society in the twentieth and twenty-first centuries. ICT has offered language learners excellent learning opportunities in all aspects of their education, allowing them to develop their language skills to be used afterwards in exciting and relevant situations. The virtual language laboratory is an example of how technology can be used in the classroom. Teachers employ virtual language laboratories to foster students' independence in their studies while simultaneously enhancing their language skills (Yi-Lien & Karey, 2017). In virtual language labs, students can concentrate on their individual skills and requirements. In a virtual lab, students can also choose educational resources based on their prior knowledge and, more crucially, their interests. When students use virtual language

laboratories, they are better able to participate in conversations at any time and speak with peers and teachers. Different learning styles can be accommodated and learning can be encouraged through a range of activities while using online language laboratories. Modern technological developments seem to pique students' interest, and they are eager to use them in the classroom (Mozgoyov, 2012).

Moreover, students can also advance their education at their own rate. Hismanoglu (2012) asserts that virtual learning approaches can help students improve their communication skills as well as their teamwork and sharing abilities. A language learning platform that is useful for enhancing communication skills can be created by combining real-world language learning environments with the virtual learning environment. According to Arteaga (2018), virtual learning environments can be successfully included into language communication courses in a variety of ways. An accurate simulation known as a virtual lab enables students to learn in a hands-on setting that is comparable to a genuine lab. In order to do this, Sounds Virtual Inc (n.d.) creates a virtual language laboratory that enables students to access resources for assistive technology without having to travel to a physical location. As a virtual language laboratory to accompany on-campus language courses, virtual environments can give distance learners the resources and abilities they need to practise communicative skills.

Virtual language laboratories enable students to learn without being constrained to a particular location or time, in addition to enhancing their practical abilities (Alemi, 2020). In virtual language laboratories, students actively participate in the process of learning new ideas, solicit prompt teacher response, and ultimately form their own judgements about those ideas. Because of this, using virtual language labs helps children stay motivated and gives them the chance to develop new skills that they can apply in their daily life (Bhattacharjee et al. 2020). In these virtual language labs, which concentrate on imitating actual events, authenticity, precision, individualization, and iterative practise are all linked. Through mixed reality interactions, virtual world encounters can help people learn a new language (Girvan & Savage, 2019). By using a virtual learning environment rather than a conventional one, students can practise in a realistic setting while yet maintaining a low-stress environment. According to Hassan et al. (2016), Iraqi students' positive FL response improved their language skills and competency through interaction with the avatar, which helped them overcome their language anxiety and make English

learning more fun and less stressful. Previous research on the relationship between virtual environments and language learning has demonstrated that this technology can be utilised to improve language learning (Arteaga, 2018; Alemi, 2020).

The current study was an attempt to supplement the traditional language laboratory with one of the most cutting-edge technological interventions in recent years with a review on the CAN-8 virtual lab, which is a virtual lab as well as a learning management system (LMS), since virtual laboratories have shown to improve language skills in the prior review of literature.

A cloud-based language learning platform called CAN-8 VirtuaLab focuses on oral production for any world language through the delivery of dynamic teacher-led curriculum. A paperless and borderless learning environment with advantages for both teachers and students is created by the CAN-8 Virtualab, an integrated set of capabilities (Sounds Virtual Inc, n.d.). The CAN-8 system, which is based on the idea of a virtual classroom, gives students an engaging educational experience and gives teachers a convenient set of tools to collaboratively manage, assess, and give feedback to students (Peter, 2013).

Features of CAN-8 VirtuaLab

The CAN-8 VirtuaLab has four (4) primary components: a component for students to access this curriculum, a component for teachers to register and group their student, a component to monitor, encourage, and grade them (Sounds Virtual Inc, n.d.).

The Planner: Templates and simple drag-and-drop functionality for text, pictures, and audio make it easier to create personalised curricular materials. Learning third-party software is not necessary thanks to the inbuilt audio editor. To quickly produce class materials, instructors can simply record new information into CAN-8 or combine old material. To create proficiency evaluations, placement tests, or assessments, further capabilities like listening limitations, synchronised text and audio, and a variety of feedback options are also available.

The Tracker: Students no longer need to manually submit their work for review thanks to the Tracker. As soon as a student moves on to the next question, the instructor has immediate access to all of the students' responses, whether they were written or verbal. They can be examined immediately or at a later time, from any location. For each response, specific oral feedback and exportable marks can be provided.

The Manager: CAN-8 manage students in a safe and efficient manner, put students into courses

and give them specialised lessons according to their language or proficiency. This element gives the instructor complete control over student registration, maintaining the confidentiality of all work and grades and limiting access to the students' materials to only authorised staff members. To assess usage and confirm that the allocated work was completed, CAN-8 offers comprehensive reports.

The Player: Students can access their assigned lectures, take tests, and take part in recorded group discussions once they have checked in to the website. Any feedback submitted by teachers is announced to students upon login, and they can click on these notifications to access the activity that contains the message.

Applications of CAN-8 VirtualLab

Different ways to use CAN-8 according to Sounds Virtual Inc. includes the following:

1. **Language training:** Since 1993, several colleges and universities in North America and other parts of the world have been using CAN-8 as a tool for language instruction. CAN-8 provides a wide range of tools and alternatives to help students with oral production and comprehension because it recognises that practise is the key to fluency. When paired with conventional in-class teaching, these tools and options produce a comprehensive learning experience for students.
2. **Placement tests and exams:** All the capabilities required to construct government-mandated exams, self-correcting quizzes, placement tests, and timed evaluations are included in CAN-8.
 - For the purpose of maintaining records, scores and solutions can be exported.
 - Detailed reports that confirm student activity can be produced.
 - It is possible to deliver assessments online with a high degree of control over who has access to them by making tests available to certain groups of users.
3. **Language preservation:** Several First Nation organisations currently use CAN-8 to educate and preserve Cree, Ojibwe, Mohawk, Cayuga, Interior Salish, Mi'kmaq, and other languages and dialects. CAN-8 is the ideal method to protect oral traditions that are in danger of dying out owing to a shrinking native speaker population. It can also be used to teach languages in situations when there is

little to no available educational material. Virtual keyboards that may be customised entirely support non-Roman and syllabic characters to make it easier to type in these uncommon languages.

In addition to being an effective platform for teaching languages, CAN-8 VirtualLab is also a secure testing tool, an invaluable tool for corporate training that calls for industry-specific teaching materials, and the perfect tool for any type of repository for language preservation. When generated materials are utilised remotely, CAN-8's credential-based access and material encryption offer the highest level of test integrity assurance (Sounds Virtual Inc, n.d).

General Benefits of CAN-8 VirtualLab According to Sounds Virtual Inc. (n.d)

A Personalized Study Program: Every student, whether they are in school or are adults, has unique academic demands and obstacles that are not addressed by the standards-based curriculum. Teachers can simply adapt the curriculum to address these needs and concentrate on particular difficulties like pronunciation, understanding, intonation, rhythm patterns, expressions, and dialects thanks to the CAN-8 VirtualLab.

An Adaptable Pace: The software is designed to provide students with activities that simulate conversations and group debates, the programme aims to give students as near an experience to a language-learning course as possible. Each student is given the chance to communicate in their own unique way and practise their language at their own pace for as long as they need to become proficient.

Reduced Workloads: CAN-8 was created to make evaluating student work less complicated while keeping in mind the burden of teachers. As a student moves through their work, the answers are loaded automatically, arranged in a simple-to-read color-coded table, and made quickly available to the instructor. This saves the instructor important time.

A Versatile Tool: Teachers can interact with their students, take part in class discussions, and provide oral comments, all of which can be very helpful in assisting and motivating each student along their unique learning continuum. The CAN-8 VirtualLab enables for the design of placement tests, quizzes, and assessments, making it much more than merely a practise tool.

Enhanced Security: Sites with curriculum materials that must be kept confidential, such as government departments or corporate offices, may easily implement a private in-house cloud server. The

fact that the training materials cannot be accessed from outside the internal network guarantees the highest level of security. To guarantee that users' names, answers, and marks are only accessible to authorised workers as stated by the system administrator, CAN-8 has multiple levels of protection. By limiting users' capacity to duplicate lesson content, CAN-8 keeps your curriculum securely saved on the server and prevents students from sharing it with their peers.

A Cost Saving Solution: Institutions can easily share the CAN-8 platform among several departments and campuses and use it for multiple languages. CAN-8 sites can sell or trade their developed material with other CAN-8 clients to maximize returns on investment. Network based licenses allow cost-effective sharing of resources with no per-student or per station restrictions on utilization.

Benefits for Instructors and Students

The CAN-8 VirtuaLab is an intuitive and comprehensive package that includes the crucial elements for teachers and students to create a customised learning environment for each individual learner. Peter (2013) states that both students and instructors can benefit from;

Students: The emphasis of the student activity in the CAN-8 VirtuaLab is oral production. Students have access to speaking and listening exercises as well as more conventional learning tasks including multiple choice questions and written responses. There is no waiting for classes to load or for student-recorded work to be stored because all content is broadcast in real-time right to the learner as it is required. The students can work at their own pace without being hindered by delays that make learning difficult.

An environment for learning with several uses is created by the CAN-8 VirtuaLab. Students may follow instructions given to them remotely or may be given the freedom to choose which activities to do. The CAN-8 VirutaLab can be used in a variety of ways, such as as a pronunciation coach, for conversation practise, to help teach grammar and comprehension, or to evaluate language proficiency.

Instructors: From the perspective of the instructor, the CAN-8 VirtuaLab is made to lighten the weight of instruction and free up time to be spent with students who need it the most. The instructors can assess the students' oral responses using a computer from any location with an Internet connection and provide tailored comments. The CAN-8 student-tracking tool makes it simple to assess the training's efficacy and identify which students require assistance. The straightforward point-and-click

interface used by the graphical representation of student success data allows instructors to drill down into the students' responses, make pertinent evaluations, and offer helpful feedback.

A complete testing platform is offered by the CAN-8 VirtuaLab for oral and other tests. You can establish time limitations for specific questions, reading assignments, or the amount of time a student has to record a response. As a result, CAN-8 is ideal for use in online diagnostics, tests, and final oral exams. With the help of the CAN-8 VirtuaLab, instructors can modify computer course materials to meet their curriculum rather than the other way around. The system has a user-friendly authoring tool that enables instructors to make classes using unique and culturally appropriate audio, text, images, and video using a straightforward drag-and-drop interface. Templates are supplied for a variety of activities so that lessons can be easily developed using the instructor's current material. This allows for the rapid creation of curriculum that may be as simple or sophisticated as needed.

CAN-8 VirtuaLabLicenses

Sounds Virtual Inc. sell CAN-8 with a licence that permits a set number of connections to the cloud concurrently. The needs of the place determine this number. These connections are not restricted to particular workstations, locations, or users on an individual basis. Up to 65000 people can be registered in CAN-8, and it can be installed on any number of workstations, for in-lab use or remote access (home users). The first thing CAN-8 does when a user launches it is check to determine if a licence is available for use. If so, a licence is assigned to that user and taken out of the pool of licences. When the user exits the application, or the license is idle for a period, the license goes back into the pool, becoming available to other users.

The licensing method offer several advantages as discussed below:

Cost-effective: When compared to individual or per-station licencing, the initial cost of the licence is divided by the number of students and the length of time the system has been in use.

Complete licensing control: The client can alter how licences are distributed. Organisations can decide whether or not students can access the licences in particular classrooms or labs, online, or both. Additionally, licence usage can be planned for particular times and labs. Online users lose access to your licences after being removed from the product.

Support and Maintenance

Sounds Virtual Inc. the owner of CAN-8 gives a full year of free support and maintenance when you buy a CAN-8 system, their technical professionals will provide you with devoted support for operating the CAN-8 system, addressing technical issues with data management chores like server backups, or migrations to different server hardware during the support period. The maintenance component delivers the latest CAN-8 software versions to your location, including all updates and patches, at no additional cost. Each year, this service may be renewed.

Conclusion

By utilising CAN-8 VirtuaLab with high technical advancements and breakthroughs in information and communication technology has overcome the limitations of physical language laboratories. Through the use of CAN-8 VirtuaLab, advancements in intelligent computer-assisted language learning, synchronous computer mediated communication, and device-independent forms of intercultural communication for language learning have all been made. Learning management systems (LMS) a part of CAN-8 virtual learning environments offer special opportunities for communication and collaboration that help teachers mark assessments, keep learners' records, monitor, control, and deliver multimedia content, as well as group, display, review, and collect audio, video, and web-based multimedia content.

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