

Voice Recorders: Pocket-Sized Language Labs

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In this paper we discuss the use of digital voice recorders, a tool not initially developed for language learners, but one that provides a number of benefits for language learning. To exemplify how voice recorders can be effectively utilized, we examine a semester-long task-based project. We argue that voice recorders are a useful addition to this project as they allow students to collect authentic material and repeatedly listen to this material at their own pace and speed. Other benefits discussed include allowing teachers to effectively differentiate listening and spoken tasks and increasing student autonomy and motivation. Common problems in using these devices are also addressed.

本稿では、本来、言語学習者のために開発されたものではないが、言語学習者に多くの利便性を提供すると考えられるボイスレコーダーの使用について論ずる。この方法がいかに有効であるかを示すために、一学期間にわたるプロジェクトの検証を行った。ボイスレコーダーを使用することで、学生は、インタビューを通しての実践的な会話を録音することができ、内容を自身のペースおよびレベルに合った速さで繰り返し聞くことができる。また、学生のレベルに応じたリスニングおよびスピーキングの課題を与えることが可能であり、かつ、学生の自主性や意欲向上を助けると考えられる。また、このようなデバイスを使用する上での一般的な問題についても考察する。

THIS PAPER concerns the use of voice recorders as an aid to language learning. A project that makes extensive use of voice recorders will be described. This will lead to a discussion of other ways in which voice recorders can be used and issues that language teachers need to consider if they intend to use them in class.

Perhaps we first need to clarify what we mean by voice recorders. Although the general meaning of *voice recorder* covers various kinds of equipment (cassette tape, digital MD, or digital integrated chip [IC] recorders), in this paper we are specifically referring to the use of modern digital (IC) voice recorders.

Digital voice recorders have been an excellent resource for our project. They are smaller than MD recorders—easily fitting into any pocket or the palm of a hand. Compared to the older cassette recorders, IC recorders make recording simple and playback instantaneous. We have often observed students in the classroom making a recording and listening to it immediately, curious to see how they sound. As well, unlike when using cassette recorders or MD recorders, dubbing from IC recorders is usually a matter of dragging and dropping computer files because many IC recorders have USB plugs. This allows the teacher and each student to have



their own copy in a few seconds. The files can then be played (and possibly manipulated) on any number of devices: desktops, laptops, tablets, mp3 players, smart phones, or other voice recorders.

Voice recorders also function as mp3 players, but they have a number of functions that make playback easier than with an mp3 player. The models we use have a looping function, variable speed playback, and the ability to cut a single track into two separate tracks at any selected point in the recording. The looping function can be used to repeatedly play back a small snippet of a recording that is particularly difficult to hear. The variable speed playback allows students to slow down the playback of the audio, which can help the students catch what is being said as they listen to a recording multiple times. Finally, the ability to cut tracks allows longer tracks to be cut into a number of shorter, more manageable tracks. For example, a 15-minute interview consisting of five questions and answers could be cut into five tracks of one question and answer each, simplifying the cueing up of the later questions and answers.

Language Labs?

The title of our paper refers to language laboratories, which needs some further explanation. As documented in an excellent analysis of the history of language laboratories (Roby 2004), the heyday of the audio-lingual method was in the 1960s. Most self-respecting high schools and language schools at that time had a purpose built room, the language laboratory. In this laboratory students could dissect the language in a curriculum heavily biased towards listening at the expense of more traditional approaches to language. The scientific image that the word *laboratory* evokes soon lost its appeal as studies began to question whether this methodology actually led to significant language gains (Smith, 1969). The Smith study, for example, showed that students studying using the audio-lingual method did not do

significantly better on standard language tests than those studying through a grammar-translation method. Due to the huge cost of setting up and maintaining these language labs and due to a shift towards a communicative methodology, language labs fell out of favour by the 1980s.

When PCs became widely available, language labs were not updated but replaced with multimedia rooms. Although it is possible to use modern computers in much the same way as language laboratories (recording one's voice and listening to pre-recorded dialogues), this is often not the case as the multimedia room is no longer viewed as being primarily for language study. As a consequence, much of language teaching has returned to general classrooms. Indeed, such classrooms fit the current post-methodology era that we now teach in. Classrooms nowadays have movable desks that allow pair and group work, or can be pushed to the side for the occasional poster-presentation session. Language teachers these days would probably feel restricted with a room where students sit at fixed desks in cubicles facing the teacher, unable to easily talk to other students.

We do not anticipate or recommend a return to the kind of audio-lingual methodology that was popular in the 1960s, but we do see value in two of the basic principles that came out of that era: (a) listening to a considerable amount of authentic language is beneficial for language learners; and (b) students ought to be provided with opportunities to try and use this language for themselves. As Elton Hocking, a pioneer of this methodology, put it, "sound brings language to life, and life to language" (Huebener, 1963, p. 140). What we do recommend is that teachers consider current improvements in technology that allow students to record speech and listen to it inside and outside regular classrooms.

In a newly emerging field of research, the use of portable devices (such as iPods, cell phones, voice recorders, or laptops) is now referred to as m-learning (mobile learning) or MALL

(Mobile Assisted Language Learning). M-learning, an offshoot of computer-aided learning (CALL), is defined by the portability and “any-time, anywhere” nature of the devices used. In Kukul-ska-Hulme & Shield’s (2008) general discussion of what they see as the under-researched field of m-learning, they specifically noted that “digital voice recorders that might appear to be more suited to individual learning activities have been suggested as ideal tools to support collaborative learning” (p. 283).

The Peace Park Interview Project

In this section, we will illustrate the use of voice recorders by introducing a major project that we do at our university that uses recorders extensively. Our university is a small private university in Hiroshima with a mostly technical focus. All of our students are non-English majors and it would be fair to say that the majority are false beginners. The students are encouraged to take at least one elective English course to fulfil their graduation requirements.

At our university, we use voice recorders as a central element of our 1st-year speaking course. At the centre of the course is a two-stage project:

- (a) Students go to Hiroshima Peace Memorial Park and interview English speakers;
- (b) Students give a presentation (using presentation software) about their interviews.

In the first half of each semester, we prepare the 200 students (eight classes) for their interviews. In groups of three or four, the students choose a topic for their interview and they are guided through the process of creating questions for the interview. During this preparation period, we use voice recorders in several different ways. Early in the semester, the students are provided with written instructions in English for the recorder and they are expected to learn how to use it. In other lessons, they do

interview role-plays and mock interviews using the recorder. By halfway through the semester, the students have prepared questions for their interviews and have practiced interviewing each other in class using the voice recorders to record the answers.

At the Peace Park, each group is given a recorder and told to approach English speakers and interview them. Many of the interviews are with native English speakers, but some are with non-native English speakers (particularly good role models for our students). The interviews are usually quite short—consisting of approximately five or six questions. Each student usually interviews one or two English speakers. Students do the interviews in groups because it allows them to participate in more interviews, as either an interviewer or as an observer. In this way, one student usually experiences four or more interviews in an environment that may feel safer (both physically and emotionally) than if they had conducted independent interviews.

After the interviews are finished, the group’s interview recordings are transferred to the teacher’s laptop computer and to each group’s USB flash memory. This is important for two reasons. First, by saving the data this way, the teacher can easily verify that each student took on the interviewer role and evaluate how successfully they negotiated the interviews. Second, by having their own digital copy of the interviews, the students can listen to the recordings whenever they wish. This also gives them the option to integrate particularly relevant audio clips into their final presentations.

In the second stage of the project, the students use the voice recorders less as a tool for speaking and more as a tool for listening. Through the interviews, the students have created their own authentic listening material. So the first task in this stage is to transcribe the interview answers. We initially ask the students to do this in the park when the interviews are still fresh in their minds. The voice recorders facilitate the transcribing task because they also function as mp3 players. In the park the students

listen on the same voice recorder they used for the interviews. However, for later classroom use, the teacher can transfer the recordings to any voice recorder for use as a player.

Discussion

This section will be divided into four parts. Initially we will expand on the positive aspects of using voice recorders as a language learning tool that have already been touched upon in the example project provided above. Next we will briefly highlight some of the issues that teachers ought to be aware of if they decide to invest in a set of voice recorders. Then cell phones are discussed as a potential alternative to voice recorders. Finally, we will also address the question of purchasing voice recorders.

Voice Recorders: A Versatile Tool

An obvious use for voice recorders is an interview project such as the one described above or another project at Doshisha Women's College which had students use voice recorders to interview groups of American students visiting their campus (Chan & Kim, 2011). The main difference between the Doshisha project and ours is length. Doshisha students only had one class to prepare for their interview and there was no formal follow up. Our project, on the other hand, uses seven classes for preparation, followed by student presentations based on the answers they received during the interviews. The length of the project is of course dependant on student ability and the teaching objectives in each context. The two projects are similar in that they both view interviewing foreigners as an exciting and rewarding task. Through raising awareness that engaging strangers in conversation is possible, students are given the opportunity to take control of their learning. With suitable preparation, we find many of our students are generally more motivated in their language studies through the successful completion of this

kind of task. Voice recorders are a versatile tool that enables this experience.

Voice recorders can be utilized in the second language classroom in other ways as well. As this device is similar in size and shape to other devices students carry around (like cell phones or iPods), it is often viewed as more of a toy than an educational tool, which can be advantageous in encouraging students to play around with language. Voice recorders can also assist in classroom management. They can give students a greater sense of urgency to complete a task such as reading a dialogue or asking a partner a series of questions. The teacher can spend less time monitoring reluctant students and devote more time giving individual feedback. Table 1 shows a number of possible areas in which voice recorders can contribute to language learning.

The list in Table 1 is not exhaustive and creative teachers will undoubtedly find other uses for voice recorders. Table 1 is intended to prompt teachers to start thinking about the activities or tests that they currently use, and try to imagine how voice recorders might be incorporated into their lessons. As Table 1 suggests, teachers should not restrict themselves to the more obvious speaking and listening activities. One idea was mentioned in Kukulska-Hulme and Shield (2008), in which students of French at Dublin University used voice recorders as storage or playback devices. In class they downloaded language files from websites that matched topics that they were working on and the voice recorders allowed students to take these files home and work on them in their own time. In another example, Tsung-Yu and Yu-Ling (2010) reported on an ambitious learning project undertaken in Taiwan. In this project, students participated in an educational game, part of which entailed students using voice recorders to perform a story telling relay race. That voice recorders were used as part of this educational game underlines their motivational role. When these students were later tested on their spoken ability, their responses to questions

Table 1. Suggestions for Using Voice Recorders

Speaking	Listening	Reading	Writing	Assessment
to interview speakers of English (both native and non-native) in or out of the classroom	to analyze authentic conversations at student's own pace	to supplement printed text with an audio version	to transcribe authentic conversations	to efficiently test a large number of students on their spoken ability
to record in-class role-play activities	to practice speeches (intensive listening can help with speech memorization)	to allow students to tell stories they have created and share with others via a class blog		to improve objectivity when marking spoken tests
to give learners specific pronunciation feedback	to differentiate listening materials within mixed ability classes			to facilitate teachers making tests of listening ability

were recorded using voice recorders. This allowed the teachers to listen multiple times to students' answers and so to evaluate them more objectively.

Testing spoken ability is one area where teachers can use voice recorders to solve some common problems. In an evaluation of spoken test validity, Koizumi and Hirai (2012) explained that one problem was finding enough interviewers or time for the direct assessment of speaking. They noted that a good solution would be to record the tests. In our own context, we have also used voice recorders to reduce the time necessary for a spoken test. During a 15-minute session, fifteen pairs of students were expected to create, perform, and record a five-minute role-play. This replaced the assessment of individual pairs, which typically required 90 minutes. Although the marking burden for the teacher remained the same, there were two main benefits: (a) the teacher could mark more objectively because of the possibility of repeated listening; and (b) scheduling was more flexible: 30 students could be tested on their spoken ability in a shorter time.

Potential Concerns

While there are many benefits to using voice recorders, we should also note a number of concerns. First, students need to learn how to use them effectively, particularly prior to the project interviews. Checking the battery and noting that the recording light is on before recording are good habits to instill in students. Also, students should be shown good microphone techniques because environmental noise can make transcribing difficult if not impossible. Poor understanding of the device that prevents the completion of task may be demotivating for students as well. Second, teachers need to be aware that regular use of voice recorders generates a great amount of material which could result in a great amount of marking. Teachers should have a clear idea of which recordings they intend to mark because listening to and commenting on every recording made by students is impractical. Instead, the purpose of using voice recorders will often be to motivate and to provide an interesting variation on normal classroom activities. Here, peer assessment could ease teachers' marking burden and double as a listening activity

for students. Finally, teachers need to consider the cost of the recorders. Investing in them can require a significant amount of money. This will be discussed more fully below.

Cell Phones: A Cost Effective Solution?

One possible means to circumvent the cost of voice recorders, yet still receive the benefits, is to use cell phones. Most cell phones, especially smart phones, have a voice recording function. If the students are all suitably equipped, this might be a cost-effective solution. However, there are arguments against the use of cell phones. Unlike cell phones, voice recorders cannot be used to text messages, play games, or surf the Internet. A voice recorder's limited functions can help students stay on task. Furthermore, as the students each play the role of an interviewer, such as in the project outlined previously, it may help if they "look the part" when approaching potential interviewees. The student has a realistic prop for their role as an interviewer and the interviewee should be given an unspoken yet clear message of intention. A final point concerning the use of cell phones is that they often save the data in different formats, which makes the management of files problematic. If students are to submit an mp3 recording to the teacher at the end of a class, all the devices have to be capable of doing this. Importantly, given that cell phones are the property of individual students and store personal information, collecting them at the end of class for evaluation is not a viable option.

Purchasing Voice Recorders

Since we are of the opinion that the benefits of voice recorders outweigh the financial costs, we would like to provide suggestions on how to accumulate a set of recorders. First, to spread the cost over time, teachers may start by initially purchasing only a few recorders and increasing the number over time

as funds become available. Second, teachers should consider which type of voice recorder to buy and how many would suit their ultimate needs. As with most electronics, there are a range of products in terms of quality and cost. Recorders generally cost 7000 to 20,000 yen. For class use, where the possibility of breakage or loss is high, we recommend the less expensive models. While more expensive models record better sound, if the main purpose is to record people's voices (as opposed to music), lower quality recordings are often acceptable. How many to buy depends on the number of students and the intended use. If the intention is to use voice recorders for pair or group work in class, it is unnecessary to purchase one for every student. If, however, the recorders are to be taken home for intensive self-listening practice, then each student will need their own recorder, or a system for sharing will need to be established. In our interview project, we have approximately 40 recorders for 200 students (a ratio of 1 to 5). As these students are divided into eight classes, we usually have at least one for two students in class. On fieldwork day, however, we arrange for groups to meet at designated times throughout the day, allowing a rotation of our limited number of voice recorders.

Key questions that a teacher will want to ask when choosing a particular model are:

- Is the recording quality good enough for my purposes?
- Does it have enough memory for my purposes?
- Will my students be able to use it easily?
- Is it easy to transfer files to and from a computer?

After choosing a particular model or brand that suits the teaching purpose and budget, it is advisable to continue using that same brand when expanding the program as more funding becomes available. Having different brands makes life difficult for the teacher in explaining to students how to use them and how to process the voice files that they generate. It saves time

for teachers if all of the voice recorders that need to be prepared for class operate in the same way. Naturally this means that time should be spent carefully browsing electronics stores before choosing the initial set of recorders, as this initial selection will influence subsequent additions.

Conclusion

The primary goal of this paper was to raise awareness of the benefits that voice recorders can bring to language learning. A secondary goal was to address issues that teachers may have concerning their use. In this section the benefits of voice recorders will be summarized, and possible areas for research will be proposed.

First, voice recorders provide a number of potential benefits for language learning. Some of these benefits overlap those associated with the old-style language lab, such as the ability to enable students to listen individually to audio texts and the ability for students to record themselves speaking. In this way, recorders can aid both listening and speaking fluency. A benefit quite outside those of traditional language labs is the role recorders can play in the generation of original authentic listening material as exemplified by our Peace Park interview project. Additionally, the portability of these devices and of the recordings created using them allows voice recorders to be put into the m-learning toolkit. These benefits can be provided by voice recorders at a lower cost and with greater flexibility than can a purpose built room. This is not to say that voice recorders should be a replacement for the modern multimedia room, but that they can be complementary to such a room. Many language classes do not have exclusive use of a multimedia room, therefore language projects that require a lot of PC time may encounter scheduling difficulties. Due to their portability, voice recorders can provide students with practice outside the multimedia rooms as they allow students to work on sound

files anywhere. Indeed, the portability of these devices can be seen in the same light as dictionaries, because both can be used anytime, anywhere. This flexibility may encourage students to become more autonomous learners.

Second, other than anecdotal references, there seems to be little serious discussion of voice recorders in the literature. There is a need for teachers to share their ideas on the use of voice recorders and also to critically examine the potential benefits they offer language learning and teaching. Unfortunately, references to this tool and how it might best be used currently lack empirical support. A logical step in rectifying this would therefore be to make comparison studies of learners involved in projects using voice recorders with learners undertaking similar projects without these devices. Research along these lines might try to answer some of the following questions:

- Do voice recorders have a measurable effect on student motivation?
- Do students who use these devices acquire language more effectively than students who do not?
- Does use of these devices encourage learners to work with language more autonomously?
- Could the preparation phase of an interview project be achieved equally well in a class that did not use voice recorders?
- Could students armed only with clipboards and pens collect answers to interview questions as effectively as those with voice recorders?

We anticipate that answers to such questions would allow us to state with greater conviction our view that voice recorders are a useful tool for language learning. Such research might also enable us to identify with greater precision which of the language learning activities suggested in this paper benefit most from the use of digital voice recorders.

Bio Data

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