

# Digital Voice Recorders



*A group of Primary School Students is producing a film for the FÍS film project and wish to add commentary to some scenes. A Digital Voice Recorder is very suitable for this task. Its portability and ability to record high quality audio make it an ideal tool for the 'roving reporters'.*

## What is a Digital Voice Recorder?

Sound, including speech, music, and recordings of various types can play an important and fun part in education. With digital voice recorders, pupils can record and listen to the unique sounds of different environments and share them with others. Digital voice recorders allow pupils to download recordings to a computer for increased sharing potential through email and other means. Digital voice recorders are slim, compact in size, and portable. They are ideal to be passed from pupil to pupil or taken home or on school field trips, allowing the sounds that are captured to play a part in the learning process.

Digital voice recorders offer a low-cost solution for those seeking to produce high quality recordings. Furthermore, they offer advanced editing functions, including move, divide and combine, as well as providing a random access function. Some MP3 players have digital voice recording built in while others work with external units to record. Students can download educational material as MP3 files for playing on MP3 Player. More personal digital devices such as mobile phones and PDAs have a voice recording features. Other formats used include WMA and AVI.

## Possible Educational Uses

Recording, playing, and editing good quality audio is a highly motivating activity for students and may help to address different learning styles more effectively. There are a number of possible educational uses for voice recorders and MP3 players some of which are outlined below:

- Recording student musical performances and compositions and tracking their development
- Recording responses to and reviews of student assignments
- Recording class activities so that students with hearing impairments or learning difficulties can review them at a later time (with permission from the teacher)
- Creating audio content for school Web sites and multimedia presentations
- Recording interviews with subject matter experts and field notes
- Improving oral language development and other foreign language skills
- Developing audio to accompany textbooks, particularly for learners with special needs
- Using voice recorders in conjunction with voice recognition software for students with special needs. They can be used with voice recognition software such as *Dragon Naturally Speaking*.
- Downloading content as MP3 files from scan/read software such as *Read and Write Gold* or *Kurzweil*.
- Use of digital voice email function for visually impaired persons.
- Creation of revision material for students to listen outside of school

Digital voice recorders/players can be used independently in a wide range of educational contexts or they can be used in conjunction with other technologies, and be connected to computers to transfer recordings. Audio editing on a PC is also possible using editing software. In general, this

type of software has the same, or very similar, functionality as the editing functions on digital voice recorders/players.

### Technical Considerations

Digital Voice Recorders include a minimum of 512MB memory for mid range DVR and have multiple recording modes usually WMA and MP3. With a 512MB model it is generally possible to record 68 hours of material in SP (standard Play mode). There is an overwrite function inbuilt and automatic digital pitch control. The higher end of the market has a voice email function. Most DVR come with USB 2.0 connections for high-speed transfer to your computer.

Specifications of various products varies, however, most specifications include features such as remote control, screen display, rechargeable Lithium ion battery, shock resistant memory, high quality sound, AC adapter and a carrying case.

Recorders use various digital compression techniques when storing music. These techniques compress the data by a factor of approximately 5 to 1.

Products have a range of functionalities including:

- Multiple Use Voice Recorder: Recording meetings, lectures, personal notes, to-do lists and more.
- 512MB Built-in Memory: Typically can store up to nearly 70 hours of voice recording with 512MB memory.
- Stereo Recording/Playback: Capable of recording in stereo, for high-quality digital recording and playback.
- Multiple Recording Modes: Recording in XHQ (eXtra High Quality), HQ(High Quality), LP (Long Play) and SP(Standard Play) gives you the flexibility you need to store the maximum amount of files of the quality you specify. There is a trade-off between quality and size of the file. For broadcasting or further editing of the audio file, higher quality setting should be used. SP or LP should be used where quality of the recording is not as important as capturing a long recorded session such as a lecture.
- Voice Activation: Recorders will respond to your voice to turn on, start recording and more.
- Large, Back-lit LCD: Finding the digital voice and music files you need and organising is easy with the large LCD.

### Purchasing Considerations

The cost of a Digital Voice Recorder can vary dramatically, with prices starting at €40 and reaching over €500 for a high-end model. MP3 Players can vary from €50 to €500.

A number of additional factors may influence price and the following issues should be considered prior to making a purchase:

Get a recorder that supports recording to MP3s - which is the most flexible of all of the digital formats. You can use MP3s with virtually any music listening or editing software you can imagine - and on Macs and IBM compatibles.

Get a recorder that supports USB transfer - and that without any special driver software. This will allow you to transfer the contents to any computer that has a USB interface.

Get a recorder that does not require special software - if it requires special software, it limits you to using that recorder with a specific computer.

With these requirements satisfied, you can use the voice recorder with virtually any computer with any audio software, and not have to worry about getting special software.

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Other relevant questions:

- How does the school intend to use Voice Recorder/MP3 Player?
- Will it be used for recording or as a player?
- Will it be necessary to buy a cable for connection to a PC?
- Is it compatible with a Mac?
- What is the lifespan of the battery when the machine is in use?
- Can it be used with a stereo system or is there a need to purchase additional accessories for this purpose?
- Is editing software included in the price?
- Is it compatible with Voice Recognition Software?

## Relevant Web Sites

Introduction to Digital Voice Recorders

<http://www.youtube.com/watch?v=NgldpGd-8PU>

Useful introduction to DVR in a video format

PC Magazine Review of Digital Voice Recorders

<http://www.pcmag.com/category2/0,1874,805487,00.asp>

The web site includes a number of up to date product reviews and prices.

Blog on Digital Voice Recorder

<http://ideamatt.blogspot.com/2007/01/notes-on-using-digital-voice-recorder.html>

Notes on using a digital voice recorder for taking reading notes

*Note: While the advice sheets aim to act as a guide, the inclusion of any products and company names does not imply approval by the NCTE, nor does the exclusion imply the reverse. The NCTE does not accept responsibility for any opinions, advice or recommendations on external web sites linked to the NCTE site.*

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