



Curriculum for sound engineering, speech and language training

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Introduction

Training plans for speech and language training and audio engineering are used as the basis for this curriculum. This content is supplemented by teaching content specific to the blind and visually impaired.

If it is not possible to obtain qualifications or validate skills and abilities in a country, the establishment of a certification body for knowledge, skills, abilities and social competences should be aspired.

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Partners:

Bundes-Blindenerziehungsinstitut Wien: <http://bbi.at>

Centrum dla Niewidomych i Słabowidzących Kraków: www.blind.krakow.pl

Vienna Business School Schönborngasse Wien: <https://schoenborngasse.vbs.ac.at>

1. General educational objective

- The aim is to obtain a certificate that is valid throughout the EU. If this cannot be achieved, a certificate from a relevant certification body in the individual countries should be sought.
- The curriculum is a cross-school form of assistance in preparation for work in the primary labour market and is aimed at trainees with blindness or visual impairment, taking into account an inclusive setting.
- The training programme is aimed at people aged 15 and over. Internships and other subjects are organised according to national regulations.

On completion of their training

(<https://www.ris.bka.gv.at/Dokumente/Bundesnormen/NOR40234935/NOR40234935.pdf>), trainees have the following competences:

- Taking an active and responsible role as an entrepreneur, employee or consumer
- Developing creative and sophisticated solutions for the digital requirements of the working world
- Being able to obtain and evaluate information
- Working in a team and taking responsibility
- Lifelong learning through further education and training and learning from and with each other
- Social learning, socially responsible behaviour
- Show empathy, appreciation and motivation

2. Didactic principles

Teaching and learning objectives

The trainees

- use language that is easy to understand
- know the technical possibilities and limitations of sound recordings in different situations and environments
- know about the historical development and the current state of music in different countries
- know elements of music theory

- play one or more musical instruments beyond the beginner level
- have improved their hearing for the perception of speech, music and sounds in the course of their training
- can evaluate, edit and improve existing sound recordings
- are familiar with the legal aspects of audio and video production
- know business models of work in the audio and video industry

The following cross-module skills and abilities must be taught and practised:

- Safety in handling technical equipment for the production of audio and video
- Independent preparation of material for speaking and of schedules for audio and video production
- Willingness to practice with concentration
- Creativity in dealing with hardware and software, especially with regard to accessibility
- Conversion to various audio, video and text formats
- Social and emotional competence in working with other people involved in productions

Lesson planning

The planning of the lessons depends on the training time requirements in the individual countries, the number of trainees, the availability and type of equipment in a recording studio, etc.

Teaching methods

The teaching methods are adapted to the customs of the individual countries.

3. Teaching principles

The school has been given educational tasks ("teaching principles") that cannot be assigned to a single subject, but can only be dealt with on an interdisciplinary basis (<https://www.ris.bka.gv.at/Dokumente/Bundesnormen/NOR40234935/NOR40234935.pdf>). The teaching principles include development education, education for gender equality, European education, education for entrepreneurial thinking and behaviour, health education, reading and language education, media education, political education, sex education, environmental education, transport education and business and consumer education. Another teaching principle is the development of social skills (social responsibility, communication skills, teamwork skills, leadership skills and role security) and personal skills (independence, self-confidence and self-esteem, stress resistance and an attitude towards a healthy lifestyle and lifelong learning).

4. Timetable

The timetable is organised according to the circumstances of the individual countries.

5. School-autonomous curriculum regulations

The schools of the individual federal states can issue autonomous school regulations.

6. Additions specific to the blind and visually impaired

The following hardware and software priorities must be taken into account across all modules:

- Setting up a digital workplace that takes individual needs into account
- Operation of a screen reader

- Use of magnification software
- Introduction to the use of a reader

7. Contents of the individual modules

There are 5 compulsory modules. The qualifications/partial qualifications must be recorded in a separate certificate.

1. Language and speech training

Educational and teaching tasks:

This module covers the essential knowledge, skills and abilities associated with speaking. **Speaking** requires students to increasingly adapt to the respective speaking situation and to experience different performances of standard language and heritage languages. In suitable forms of dialogue (partner, small group, class discussion, etc.) and speech (spontaneous, prepared and text-based speech), students should experience the effects of different verbal and non-verbal means of expression. **Speaking** requires pupils to increasingly adapt to the respective speaking situation and to experience different performances of standard language and heritage languages. In suitable forms of dialogue (partner, small group, class discussions, etc.) and speech (spontaneous, prepared and text-based speech), pupils should experience the effects of different verbal and non-verbal means of expression. Simple methods of observation and recording should help to describe conversational behaviour and thus make them aware of it. Opportunities to speak, including in real-life situations, should be utilised as often as possible. Oral competence is a fundamental prerequisite and a goal of all education. The development of personality and language skills in the private and public sphere should be promoted through dialogue education. In this context, it is necessary to allow pupils to gain an insight into the different conditions and processes of oral communication and to act appropriately to the situation, person and subject, as well as to explore the possibilities of different forms of conversation and speech. In addition to the oral aspect of personal communication, the media forms of communication must also be taken into account.

The candidates have a medium to high level of expertise

- reading (different Braille systems, enlarged print) in relation to understanding words and meaning
- when speaking in terms of pronunciation and intelligibility of their language
- in understanding the technical language associated with sound engineering, audio and video production
- understanding technical terms and specialised literature in other languages, especially English
- when conducting interviews
- in the moderation of small discussion groups
- when creating and speaking audio descriptions
- when creating and speaking in podcasts
- when synchronising videos (only suitable people with visual impairments).

Subject matter:

1. Language training

- Correct use of breathing, voice and body language.
- Practice

2. Speech training

- Voice training for speech and to some extent for singing
- Training for professional speaking
- Get to know areas of application in which professional speaking is necessary, such as advertising, documentaries, moderation, speaking on the radio, interviews, podcasts, audio books, radio plays, audio description, dubbing, reading and speaking, translating and speaking from a second language, ...
- Practice

2. Recording technology

Educational and teaching tasks:

This module covers the essential knowledge, skills and abilities associated with audio and video recording. Knowledge and safe handling of the elements of the workplace is essential for this.

The candidates have a medium to high level of expertise

- When recording vocals and speech
- For simple multi-track recordings
- When mixing multiple audio sources
- When merging audio and video sources (mainly people with visual impairments)
- Knowing the function and use of tools when editing audio and video.
- In the knowledge of different styles of sound design

Subject matter:

1. Elements of the workplace (example see appendix)
 - Computer
 - Types of speakers
 - Types of headphones
 - Types of microphones
 - Mixing consoles (hardware and software solutions)
 - Digital Audio Workstation (DAW)
 - Screen reader
 - Magnification software
 - Midi devices (e.g. keyboard)
 - Effect devices
 - Setting up and dismantling the workstation
 - Troubleshooting in the event of problems
 - Practice
2. Recordings
 - Voice recordings
 - Vocal recordings
 - Recordings from other sources
 - Simple multi-track recordings
 - Midi recordings
 - Sound generation with the help of Midi and Midi devices
 - Fast and safe operation of hardware and software

- Quality inspection of own and third-party recordings
- Practice

3. Theory, practice and instrumental lessons

Educational and teaching tasks:

This module covers the essential knowledge and skills associated with music theory and instrumental playing.

The candidates have a medium to high level of expertise

- In the fundamental understanding of the diachronic and synchronic development of music in different countries
- In the theory of harmony
- In the knowledge of homophony and polyphony
- In the composition and effect of rhythms
- Playing one or more instruments

Subject matter:

1. Diachronic and synchronous development of music in different countries
 - Historical development of the forms of music-making and the instruments used
 - Today's music styles
2. Music theory
 - Harmony theory and effect - high/low, transposition technique, naming intervals, triads, tetrachords and more, keys, chords and inversions, circle of fifths, chord progressions, cadences and other chord progressions in various musical styles, ...
 - Beat and rhythm - naming the time signatures, rhythmic exercises on one's own body (clapping), recognising rhythms, placing them in a rhythmic grid, metronome, ... and with instruments), ...
3. Notation
 - Basic knowledge of musical notation depending on accessibility for people with blindness or visual impairment
 - Knowledge of different types of notation: tonal, rhythmic, graphic, chord notation, ...
 - Simple exercises for reading and writing sheet music
- Practice
 - 4. Instrumental playing
 - Learning an instrument beyond the beginner level
 - Acquisition of knowledge about the different types of sound production
 - Connection of melody and its harmonisation in different musical styles
 - Describe and play common chord combinations
 - Creatively develop, write and record your own pieces
 - Basic knowledge of acoustics, especially the effect of different conditions in rooms
 - Gain knowledge of your own instrument in connection with miking and recording technology
 - Practice

4. Post-production and ear training

Educational and teaching tasks:

This module covers the essential knowledge and skills associated with the processing of existing data sources. Listening as quality control is particularly important. Knowledge of editing options is key to improving/modifying existing audio sources.

The candidates have a medium to high level of expertise

- Understanding input and output and how to use a digital audio workstation (DAW)
- In the routing of signals during recording and playback
- In the use of effects and other influencing options (e.g. equaliser)
- Recognising damaged or poor quality material and attempting to improve it

Subject matter:

- Familiarisation with the possibilities of the Digital Audio Workstation (DAW)
- Editing individual tracks
- Using equalisers and effects
- Adjustment of shifted or damaged recording parts in the rhythmic/temporal grid
- Import and export of various formats (Wave, AIFF, MP3, etc...) and their provision for exchange.
- Ability to share audio and video material for group collaboration
- Basic knowledge of audio/video dubbing and synchronisation, especially for audio description and video synchronisation
- Ear training in terms of recording technology
- Listening to and knowledge of effects and other sound processing measures such as equalisers, compression, reverb, modulation effects etc. and their impact on sound processing
- Assignment of recordings to styles such as classical, rock, pop, rap, ...
- Recognising instruments and instrumentation as well as musical forms, stylistic characteristics etc.
- Knowledge of and use of common sharing music platforms and the consumption of music (conscious listening)

5. Business and legal matters

Educational and teaching tasks:

This module covers the essential knowledge and skills related to legal and financial aspects.

The candidates have a medium to high level of expertise

- Knowledge of relevant laws, especially copyright laws, in various countries
- In founding, establishing and cooperating with companies in various countries

Subject matter:

- Common working conditions in the music industry
- Difference between employment and self-employment



- Search for activities through self-promotion and offers
- Health and social insurance
- Accounting and tax returns (tax advice)
- Copyright and use of audio and video material
- Contact with role models, especially with people who are blind or visually impaired

8. Appendix - Example of a workplace

The minimum requirements for a workstation are a laptop or stand-alone device with a screen reader and/or magnification software, common DAW software, an audio interface, monitors, headphones and a microphone. A laptop is preferable to a stand-mounted device due to its flexibility, allowing you to work from any location. In most cases, it is powerful enough for recording.

DAW software with corresponding screen reader or magnification software is required: ProTools, Logic or Garage Band (only on Apple) or Reaper. Cubase, for example, cannot be operated with a screen reader.

The screen reader must be set so that the workflow is hindered as little as possible.

The audio interface must support at least two channels of input and should have a simple controller function for the DAW as well as 48 volt phantom power for condenser microphones. Appropriate USB, XLR and jack cables are required for this.

The microphone should have good characteristics for voice (Shure SM7 for broadcast or common condenser microphones for voice and vocal recordings), as well as wind/pop protection or reflection filters to adapt the recording situation to the spatial conditions.

USB keyboard for midi functions, virtual instruments, drum and percussion etc. are required to generate audio content.

In general, it should be well planned which equipment should or must be available for the teacher's workstation and which for the learner's workstation!

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