









## Results of the testing activities Report on the survey and final assessment

Project information	
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## **Introduction**

The Evaluation Report of the Test Phase of the Leonardo da Vinci (TOI) OPEN SoundS project is here presented.

The report presents:

- ◆ The evaluation model (purposes, issues, actors and tools)
- ◆ A synthesis of the transfer test plan
- ◆ A description of the test process and its tools
- ◆ The Conceptual Framework of reference of the learning environment
- ◆ The outcome of the test resulting from the analysis of the data gathered from entry and exit questionnaires submitted by students and teachers from the various countries partners in the project during their activities.

# 1. The evaluation model of OPEN Sounds

## 1.1 Purposes

The main targets of the evaluation were:

- ♦ ***To back the management of the project*** and to be able to make changes and improvements, in reply both to emerging issues and to new development opportunities, while constantly analysing and assessing the processes implemented (formative evaluation). The ***formative evaluation approach*** involved various actors who personally created and/or tested the products, the processes and the services supplied by the project throughout its duration.
- ♦ ***To generate learning among the actors involved.*** The project partners, the target groups and all the other actors interested in the project activities were directly engaged in the continuous process of project evaluation, to spot critical points and areas of improvement. Said action helped all the subjects involved – either as single actors or as part of a group – develop awareness of the educational and training potentialities of the project.
- ♦ ***To verify if the set targets and the expected results were achieved and the type of impact produced (summative evaluation).*** The final or summative evaluation refers to a traditional approach to evaluation, which verifies the congruency between the targets set at the start of the activity and the results achieved at the end of the experience. In this regard, the feedback came directly from the final addressees (target groups of students and teachers), either in formal and institutionalised circumstances, such as during the test, or in informal situations, when the actors involved were asked to express their opinions (workshops during the presentation seminars).

## 1.2 Issues

The main issues being evaluated were:

- ♦ The general project
- ♦ The multilingual platform for a collaborative production of creative musical products
- ♦ The effectiveness of teaching and of the knowledge and skills achieved by students during the activities
- ♦ The potentialities of the training model in the view of the strategic targets set by the Agenda 2020 (ET 2020)

The following table shows the evaluation criteria for every content:

Issues	Criteria
Project	<ul style="list-style-type: none"> <li>• Consistency between the set targets and the expected results (achievement of the expected results)</li> <li>• Efficiency of communication systems between partners</li> <li>• Efficiency and work methods (time organisation and resources)</li> <li>• Overall congruency</li> <li>• Coherence of the activities performed</li> <li>• Satisfaction of every partner</li> <li>• Education gained</li> </ul>
Multilingual platform for collaborative and remote music production	<ul style="list-style-type: none"> <li>• Coherence between the technological structure of the platform and the educational targets of the project</li> <li>• Layout</li> <li>• Accessibility, usability and ease of use of tools supplied in the area</li> <li>• Structure organisation of the environments supporting the collaborative development of activities from an educational and technological standpoint</li> <li>• Accurate, complete realization and accessibility to the tutorials and network resources supplied for the development of the activities</li> </ul>
Effectiveness of teaching and of knowledge and skills achieved by students during activities	<ul style="list-style-type: none"> <li>• Effectiveness, innovation and training utility,</li> <li>• Ability to support knowledge and skills development, in particular in the use of digital music technologies and the web, in general, for a lifelong learning</li> <li>• Ability to support motivation and pleasure in learning</li> </ul>
Potentialities of the training model	<p>Methodological and scientific consistency</p> <ul style="list-style-type: none"> <li>- Applicability</li> <li>- Innovation</li> <li>- Portability</li> <li>- Utility</li> <li>- European added value</li> </ul>

### Evaluation of the project

The evaluation by the partners of the processes and phase results was accomplished with semi-structured questionnaires submitted to the partners (June 2012 and May 2013) by way of informal evaluation sessions, always scheduled during the project meetings, and of a continuous and careful management of the communication flow between the partners. The purpose of this practice among partners was to compare opinions about activities performed, effectiveness of methods and procedures, satisfaction for the results achieved.

### Evaluation of the OPEN Sounds learning environment

The multilingual collaborative platform of OPEN SoundS was evaluated through a number of functionality, accessibility and usability tests made as soon as the platform was developed and



before the test began. Further technological and educational aspects were refined through the restricted test, while it was finally used and evaluated in the extended test phase by all the European students and teachers involved, by submitting entry and exit questionnaires laid down for the purpose by the partners.

### **Evaluation of the training effectiveness and of knowledge and skills learnt during the activities**

The whole of chapters 5 and 6 of the present Report is dedicated to the evaluation of the training effectiveness, as well as to the knowledge and skills learnt during the test activities.

Said Evaluation is the priority target of the present Report and was made by processing and scrutinizing data drawn from the entry and exit questionnaires submitted online by the students and teachers taking part in the test activities.

### **Evaluation of the educational and training model potentialities**

The evaluation of the educational and training model potentialities was also made by processing and scrutinizing the data drawn from the entry and exit questionnaires submitted online by the students and teachers that took part in the test activities.

In particular, this stage performed an integrated analysis and a correlation between the targets of the conceptual and operational framework, that shaped the learning environment of Open SoundS, and the results of the questionnaires submitted by students and teachers from the three countries partners in the project and hubs of the European network of OPEN SoundS, at the initial and closing stages of the test activities. It should be stressed that the users in Italy, Denmark and Great Britain, and also in Spain, come from rather different social and cultural backgrounds: therefore, the test is a core element for the evaluation of the educational and training potentialities of the learning environment developed with OPEN SoundS. The very differences among the testing contexts represented a key element to analyse the model in terms of portability, applicability, utility and innovation.

## **1.3 The actors of the evaluation**

The following table shows a synoptic picture illustrating the **actors** of the evaluation and the **issues** evaluated:

<b>ACTORS</b>	<b>ISSUES</b>
Students and teachers from the Schools, Academies, Universities and vocational training institutions part in the training network involved in the test	Training effectiveness, and knowledge and competence achieved by the students during the activities Potentialities of the training model
Teachers and students	Access, fruition and functionality of the platform Coherence between technological structure of the platform and educational targets of the project Coherence, congruency and effectiveness between the possible training paths, available support tools and project targets
Project partners	Effectiveness and quality of communication procedures,

	planning of deadlines, phase results, meetings and any other activity relating to the project management
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**1.4 Evaluation tools**

The following table shows the **tools** used for the evaluation:

<b>TOOLS</b>
Entry questionnaires for teachers and students
Exit questionnaires for teachers and students
Questionnaires for the project partners
Questionnaires completed by the teachers during the presentation seminars of the platform
Evaluation of the collaborative platform OPEN SoundS performed with the teachers during the presentation and sharing seminars that introduced the beginning of testing activities at a national level

The entry and exit questionnaires can be found in the appendix.

## 2. Plan of the transfer test

### 2.1 Strategic educational sectors and targets

The **final evaluation report**, therefore, illustrates the making of the Open Sounds project, with particular attention to the opinions and remarks prompted during the testing phases of the transfer to system, the transfer action itself and the dissemination of the results.

The Leonardo da Vinci **project (TOI) Open Sounds**, dedicated to the *New Education Technology* in the *Musical* field, was approved in the framework of the transfer to innovation system which, in this case, concerned the pilot project Leonardo da Vinci MODEM.

Three strategic educational sectors, and their respective actors, were chosen as addressees of the transfer action and test:

- a) **The educational and training system**, in IT, UK, DK, with particular reference to music high schools and IFP systems (technical and vocational institutions). Said system involves young people up to 18 years old: the main actors are **music students**, their **teachers of music technologies and/or musical instruments**, plus other teachers nevertheless interested in the use of digital technologies in the sound/music fields
- b) The **tertiary training** in IT, UK, DK with particular reference to **students** (aged from 18 to 23) **and teachers of Music Academies and Universities**;
- c) **The system of regional vocational training**, in particular the public and private one in Italy, with attention to vocational institutions acting in the field of technologies applied to sound arts and their students and teachers.

Consistent with the scope of the project, the targets of the test action concerned - in different ways - students and teachers, with the following chief purposes:

- build the first structured European training network for the development of creative musical projects with collaborative, remote and transnational features;
- test the extension of a model of informal learning, and its integration in a creative key, in educational paths/processes meeting the expectations of the society of knowledge and information, as well as the individual educational and vocational needs of students.
- convey to the students, from different educational and training music-related contexts, the cultural and operational skills to work in environments technologically advanced and with reticular features, understanding not only how these work but also the languages and codes used;
- increase students' chances, quality, opportunities and job versatility in the labour market
- strengthen the sense of active citizenship through collaborative practices which will involve a significant number of young music enthusiasts in the partner countries

- promote ideas regarding new paradigms/didactics/methodologies/tools and means related to the various development steps of the experience connected to the digital creation of music at different ages.

To accomplish the above targets during the project's development, the following was performed:

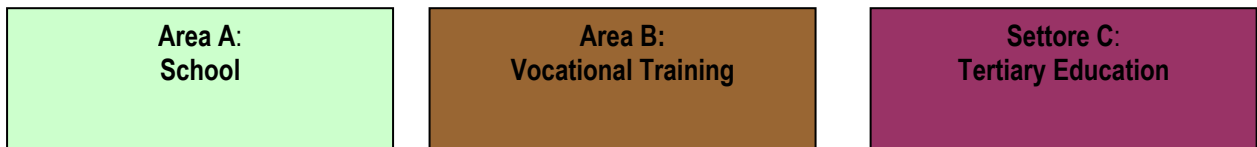
- a) Studies and reports on the main functional, technological, educational features of the learning environments for remote cooperation in music used by large communities of musicians and manufactures of digital technologies, with particular reference to those existing in the countries partners in the project;
- b) The re-planning, re-organisation and reinforcement within the new platform OPEN SoundS ([www.opensounds.eu](http://www.opensounds.eu)) of the tools already available on the MODEM platform
- c) Development of the platform OPEN SoundS which works in five languages - Italian, Danish, English, French and Spanish - and is dedicated to music produced by virtual and transnational working teams. The platform is accessible inside the project's portal [<http://www.opensounds.eu>],
- d) Construction and animation of vast test networks made up by students and teachers active in the various educational chains referable to music in the three countries of the partnership;
- e) Development of tutorials and structured paths, accessible in the TOOLS area of the platform, to access web resources supporting shared music production activities;
- f) Users, students and teachers from the various countries, organised in *target groups*, testing the access to working environments, tools and support materials;
- g) Tutoring and supporting the test in the various countries through seminars, either with attendees or through remote assistance;
- h) Promotion of many dissemination and valorisation activities/tools targeted to spread ongoing transfer and test actions;
- i) Setting up of dedicated tools for collecting and monitoring entry expectancies and exit results from the test activities performed on the platform;
- j) Planning of medium/long term actions to sustain the transfer to innovation system.

The following chapters explain the actual implementation of the main phases of the project and include the most interesting, relevant and useful remarks for a conclusive evaluation.

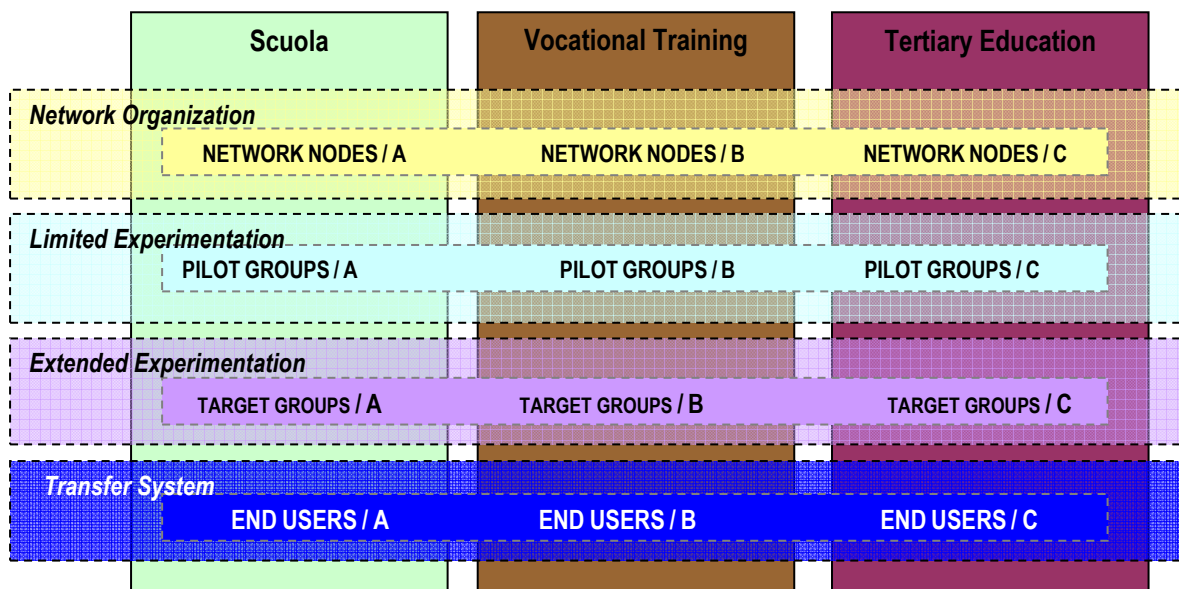
## 2.2 Articulation of the testing phase

The testing phase embodied the core of the entire project and was addressed to *target groups* who represent three different sectors, the characteristics of which were analysed in the document dedicated to *Transfer networks*.

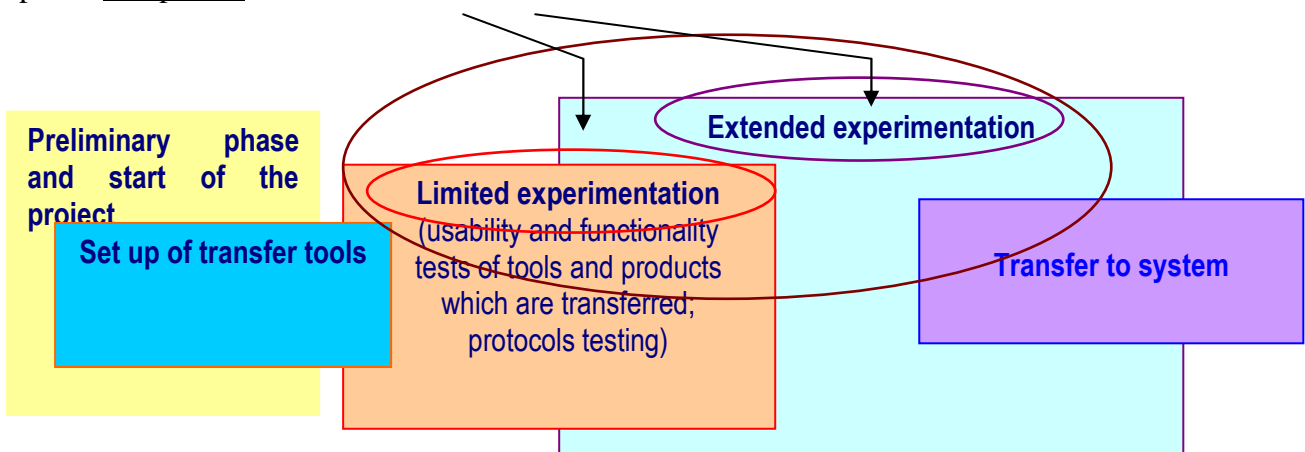
The three sectors, as already stated, are:



Each *target group* acts as a nucleus of the transfer testing network set up in the different activity fields and in the three European countries partners in the project: Italy, Great Britain and Denmark.



The test, as extensively illustrated already in the *Plan of the transfer activities* [p. 4], was split in two phases.



The **whole duration of the test was of 8 months**, 2 months of restricted testing and 6 of extended testing, as shown in the table here below:

sub-phases – duration [period]	Subjects involved	Targets
1) <u>Restricted testing</u> - <b>2 months</b> [15 Oct./15 Dec. 2009]	<i>Pilot groups</i> (restricted number of users)	<b>Focused testing of the various features of the platform</b> , as to contents, operational tools and processes applied
2) <u>Extended testing</u> – <b>6 months</b> [15 Dec. 2008/15 Jul. 2009]	<i>target groups</i> (representative of a variable number of users which fluctuates between the 2% and 10% of potential final users, depending on the boundaries of the transfer action)	<b>Fully test the use of the platform</b> for a final transfer to system of the contents, tools and processes related to the use of digital sound technologies in the educational field

Each of the two phases was therefore characterized by its specific functionality: the scope was more focused (and thus more delimited) in the initial phase of the *restricted testing*, while it proved far reaching when moving on to the *extended testing*.

## 2.3 The testing phase within the project

The *test* had to weigh and measure in advance the functionality and effectiveness of the transfer action of the project as a whole, whose specific targets were, among others:

“test training actions of remote music production and sharing within transnational virtual studio communities, aimed at supplying students, from the IFP systems in our partner countries and ours, with immediate and engaging tools to access key skills useful in the labour market of music or any related sector.

In particular, the goal was to test the extension of a model of informal learning, and its integration in a creative key, in educational paths/processes meeting the expectations of both the society of knowledge and information, and the individual educational and vocational needs of students”

To accomplish these targets the project hypothesized a transfer action specifically addressed to teachers and students attending schools of different ranking, as well as Artistic and Music High Schools and Universities, to test, through appropriate procedures, contents and processes apt to develop the above skills.

The course of the transfer action started with the **functionality tests of the collaborative platform**, submitted to a very **restricted group of user types** supervised by high profile experts, from the two Universities and the two companies of software developers involved

as partners in the project; it was then extended to the **Pilot Groups and the actual Target groups**, structured in specific *national transfer networks*.

Every aspect and phase of the entire process are fully and extensively described not only in the present document but also in the “Transfer Plan” in the paper dedicated to the presentation of the “Transfer Networks” and in the “Test Plan”.

#### **RESTRICTED GROUPS OF USERS AND FUNCTIONALITY TESTS.**

While no specific skills were requested to be **eligible** for *the functionality tests* (only the basic knowledge of the Internet use), the teachers and students from the three above-described areas chosen to **form the pilot groups** were requested to possess basic, intermediate and advanced skills in the use of computers as well as in the musical and educational fields.

Said skills were entry-checked by submitting dedicated questionnaires and in any case had to ensure:

- High operational independence (namely technical) to be applied in the virtual training environments set up to test practices of music production shared through digital and network technologies;
- The ability to use *knowhow* from previous experience or achieved during testing activities, either in the music production strictly speaking or in activities supporting the *target groups* (monitoring and tutoring).

Finally, the composition of the *target groups* regarded the expectations as a whole, as determined on one hand by the creative, vocational, professional profiles (final or in progress) of the individual users and, on the other hand, by personal cultural background.

In any case, the groups composition had to allow and ensure a dynamic approach to the observation/analysis of training processes and the skills being used or acquired .

#### **TARGET GROUPS AND EXTENDED TEST**

The forming of the *target groups* for the extended test took in account the features of each sector and involved samples sufficiently representative of the different national realities which, although somehow standardized by the web, still preserve local and cross-local traits.

The creation of the *target groups* also had to regard a numerical consistency compatible with the operational tools set up for the transfer test and had to prove, at the same time, vast enough percentage-wise, as to the final prospective user base. The actual target of the transfer action was to reach the **10% of the hypothesized users of the transfer to system** coming from the three areas above mentioned:

SCHOOL SECTOR  
VOCATIONAL TRAINING SECTOR  
TERTIARY TRAINING SECTOR (AFAM)

## TRANSFER TO SYSTEM

At the end of the test extended to the *target groups*, the "transfer to system and dissemination of the final results" phase will finally follow (phase 8 of the project) for a period of at least two years following the project's lifespan.

This phase, just started, will not only consolidate and enlarge the network already set up for the test, but will also launch new and more widespread networks to be promoted through new contacts and, in particular, through an increasing involvement of third parties interested in the testing (for instance the national network for quality and development of the Italian Music and Coreuta Schools), plus activating communication and distribution channels, such as pages about the project on Facebook or Twitter.

The tools supporting the dissemination and valorization action towards the system are extensively described in the **extensive and dedicated "Dissemination Plan" which supports the entire project's action.**



### 3. The testing process and the supporting operational tools

#### 3.1 Method and organization

The main transfer operational tools were:

- the *portal OPEN Sounds* [<http://www.opensounds.eu>], in all its areas and functionalities
- the platform for collaborative and remote production of music accessible from the portal [<http://www.opensounds.eu>],
- the multilingual Tools and Web Resources (tutorials, web resources, etc.) accessible in dedicated areas of the platform
- testing networks of students and teachers created by the partners from the various countries, and the networks of interest linked to the project, found in the main web social networks (Facebook, Twitter, My Space, etc.)

In the following chapter, a dedicated paragraph clarifies the function of each tool within the project. This information is accompanied by pictures and examples of the possible uses.

As already pointed out in previous documents, the portal OPEN SoundS represents the inner core of the transfer to system of the innovative products and processes tested and validated with the Leonardo da Vinci MODEM project and the successive European projects which, in time, developed and extended the model and the products.

A series of web resources complete this tool, as for instance the database of the musical collaborative portals found in the portal <http://www.opensounds.eu/practices>: through these resources OPEN SoundS will address the user to broaden as much as possible the range of opportunities regarding training, self-training and shared elaboration/planning in the specific sector of *musical education*, constructively open to the roles new sound technologies can cover in the development of lifelong learning of general and specific key skills.

##### 3.1.1 The portal OPEN SoundS

The portal OPEN SoundS <http://www.opensounds.eu>, **accessible in Italian, English and Danish**, is the core of all the implemented processes, models, products and activities. Through the portal Open Sounds, students and teachers can:

- enter a virtual training environment dedicated to the production of music in a collaborative, remote and transnational key;
- collaborate with the first Network of European students created to make and share music remotely in an educational system;
- to access training and sources of information, so as to master with awareness and strategic approach both music and web digital technologies within an educational and vocational framework.

## La struttura

The structure is arranged in four areas with distinct features:

1. **Project:** institutional information on the OpenSounds project, addressed to general visitors of the website; the area also includes a detailed description both of the targets of the project and the partners involved.
2. **Community:** a space dedicated to the users of the website, focused on creating and showing the public a *community* of students and other subjects who cooperate transnationally; the area also interfaces with Web 2.0 tools to create a multiplication effect of the channels, useful for dissemination purposes.
3. **Collaborate:** the core of the portal is the area allowing access to the collaborative platform dedicated to remote and transnational music production and to the construction of a European network of tester and user students attending primary, secondary and high schools and the public and private vocational training systems.
4. **Know How:** databases of helpful information for the users are accessible from here, as, for instance, databases of the main collaborative music portals found worldwide on the web or of the best practices in music and digital technologies many sectors, ranging from education to research, the development of new software, etc.; outcomes of European projects in the field of music digital technologies.

The complete scheme of the Portal's navigation menu in the English reference version is the following:

### **Project Area**

The navigation menu of this area allows access to the following sections:

- **Studies and research; Transfer; Test; Valorization; Partners**

Home Progetto Community Collabora Know How Danck ENGLISH ITALIANO

Studi e ricerca Trasferimento Sperimentazione Valorizzazione Partners Login

### Progetto

SHARE

Il progetto MODENA, ultimato nel 2008, ha messo a disposizione del sistema dell'IFP in Europa un modello molto avanzato della formazione in Rete: la possibilità di produrre e condurre musica in remoto all'interno di comunità di studio virtuali transnazionali. Il progetto OPEN SOUNDS è nato per riorganizzare e trasferire il materiale collegato a MODENA a studenti presenti in diversi contesti educativi e formativi europei dove vengono utilizzate le tecnologie digitali a supporto dell'educazione musicale e/o per creare nuovi profili professionali operanti nel mercato della musica.

L'azione di trasferimento messa in campo da OPEN Sounds è indirizzata:

- al sistema dell'istruzione e formazione italiano, con particolare riferimento al sistema IFP (Istituti tecnici e professionali e quello dei Istituti musicali) e a quello della formazione professionale regionale (adesso formative territoriali);
- al sistema del Lifelong Learning inglese e Danese, paesi Europei partner del progetto.

Obiettivo principale di OPEN SOUNDS è quello di trasferire agli studenti presenti in questi diversi contesti strumenti operativi, pratiche e processi collegati all'uso delle tecnologie digitali musicali in chiave collaborativa e remota. In particolare si tratta di sperimentare l'adozione di un modello di apprendimento informale e la sua integrazione in chiave creativa, in percorsi / processi didattici rispondenti alle richieste della società della conoscenza e dell'informazione così come ai bisogni formativi individuali e vocazionali degli studenti.

Prospettiva del progetto in termini di risultati attesi è quella di permettere ai giovani in formazione, presenti nel sistema dell'istruzione e in quello della FP dei paesi partner del progetto, con particolare attenzione a quelli a rischio di abbandono, di:

- costruire il primo, strutturato, network educativo europeo che sviluppa progetti creativi musicali in chiave collaborativa, remota e transnazionale;
- sviluppare competenze digitali e tecnologiche;
- rafforzare il senso della cittadinanza attiva attraverso una pratica collaborativa che vedrà coinvolti un numero elevato di giovani appassionati di musica dei paesi partner;
- accrescere la possibilità, la qualità, le occasioni e gli ambiti di transizione nel mercato del lavoro.

English

Lifelong Learning

Il presente progetto è finanziato con il sostegno della Commissione europea tramite il programma Leonardo da Vinci. L'autore è il solo responsabile di questo sito web e la Commissione declina ogni responsabilità sull'uso che potrà essere fatto delle informazioni in esso contenute.

Credits - Statistics

## Community Area

From the Community Area access is possible to sections:

- **Members; National Networks; Web 2.0; News**

Home Progetto Community Collabora Know How Danck ENGLISH ITALIANO

Membrti Reti nazionali Web 2.0 News Login

### Community

SHARE

La Community di Open Sounds è lo spazio dedicato all'incontro tra gli studenti e i diversi attori interessati alla creazione musicale in dimensione collaborativa, remota e transnazionale.

La community coinvolge:

- studenti presenti nelle scuole, nei conservatori, nelle università, nei centri di ricerca e in reti di interesse settoriali (reti di scuole, produttori e/o creatori);
- studenti della formazione professionale pubblica e privata;
- insegnanti presenti nei diversi contesti educativi collegati alla musica;
- musicisti e altri operatori dell'industria della comunicazione (cinema, TV, pubblicità);
- comunità di professionisti dell'informatica musicale e di sviluppatori di software;
- aziende della filiera produttiva multimediale ed in particolare del settore della musica elettronica (produttori di computer e software specializzati per la musica).

La community di Open Sounds guarda e pensa al fenomeno presente-futuro dell'interazione remota come prassi educativa e lavorativa diffusa.

English

Lifelong Learning

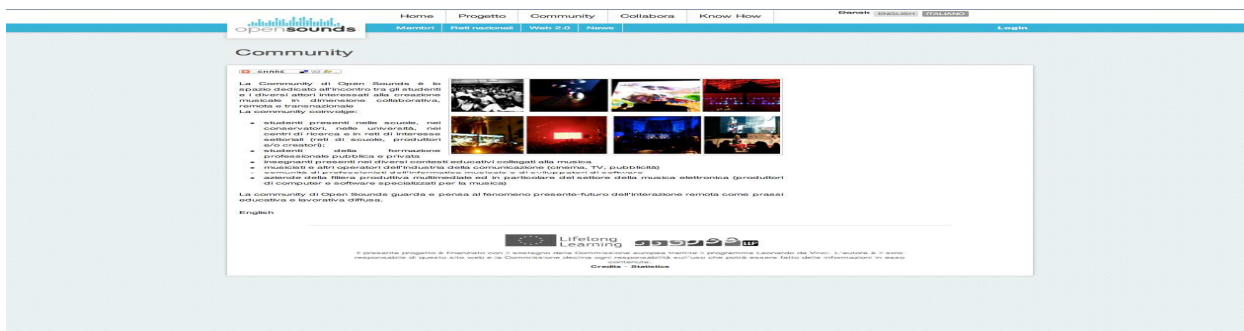
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Credits - Statistics

## Collaborate Area

From the Collaborate Area access is possible to sections:

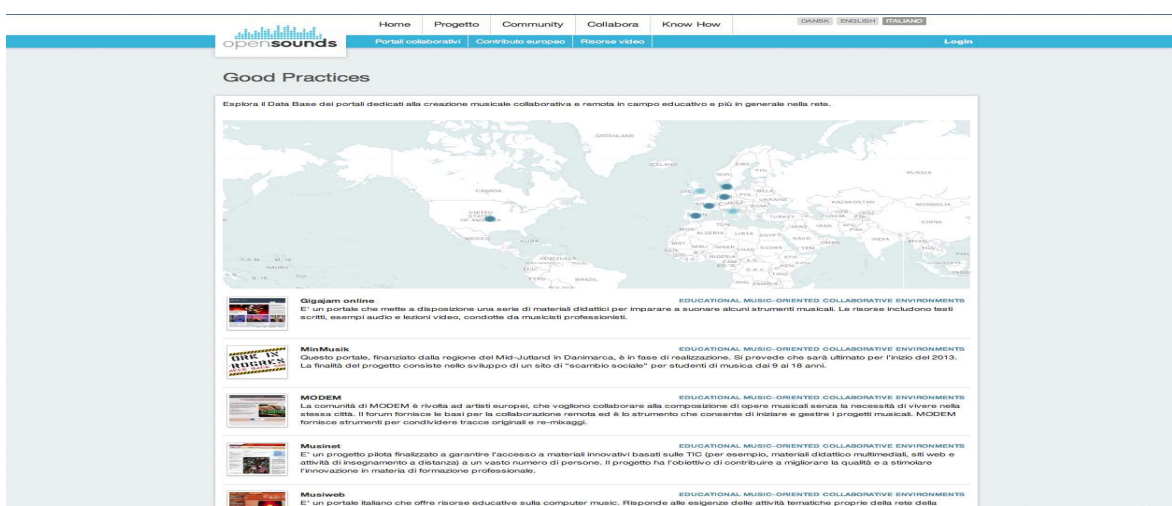
- **Virtual Studio Community; Tools**



## Know How Area

From the Know How Area access is possible to the areas:

- **Collaborative Portals; European Contribution;**



To begin with, the architecture/structure of the portal is based on an access with functions partially conditioned by user registration. Moreover, the **access to the test** is "filtered" by specific tools for a further registration, permitting:

- a) **User registration**
- b) **Traceability of the activities performed.**

Once registered, the user can:

- 1) be a user/visitor with **free access to visualize all the tools and products available in the portal's public area as well as the musical products found in the platform;**
- 2) be a member of a pilot group or a target group and take part in the **transfer test activities**, choosing to act within specific **working areas** matching his/her user profile.

### 3.1.2 The collaborative platform of OPEN Sounds: Virtual Studio Community

The platform dedicated to the music production shared in virtual and transnational working teams is the place where processes and innovative practices are built, and where it is tested and transferred into the European music education system. Therefore, the collaborative platform found in the portal realizes the primary synthesis of pre-existing innovation projects, which are now being reconfigured, extended and transferred to system. It forms the virtual space for the transfer activity in every phase of the test. Therefore, its structure and the way it works ensure a well organised, solid and integrated workflow in all its steps, and for a vast array of users.

Getting into details, the collaborative platform of OPEN SOUNDS provides various access levels and two kinds of contents.

The users of the platform are divided into **administrators, teachers and students:**

- The **administrators can** add a new educational institution to the system and create accesses for the relevant **teachers**, besides supervising and managing all the access and content control functionalities in all the platform's collaborative areas
- **The teachers can** also create customized accesses for students or approve subsequent following requests of access.
- The **students** request the participation in the network activities through their teacher or class group; once admitted to the platform activities, they enjoy absolute artistic and creative freedom.

## Working Areas of the platform

On the platform students and teachers can **create multilingual projects (the platform is in fact developed in Italian, English, French, Danish and Spanish) through a two step path**, as follows:

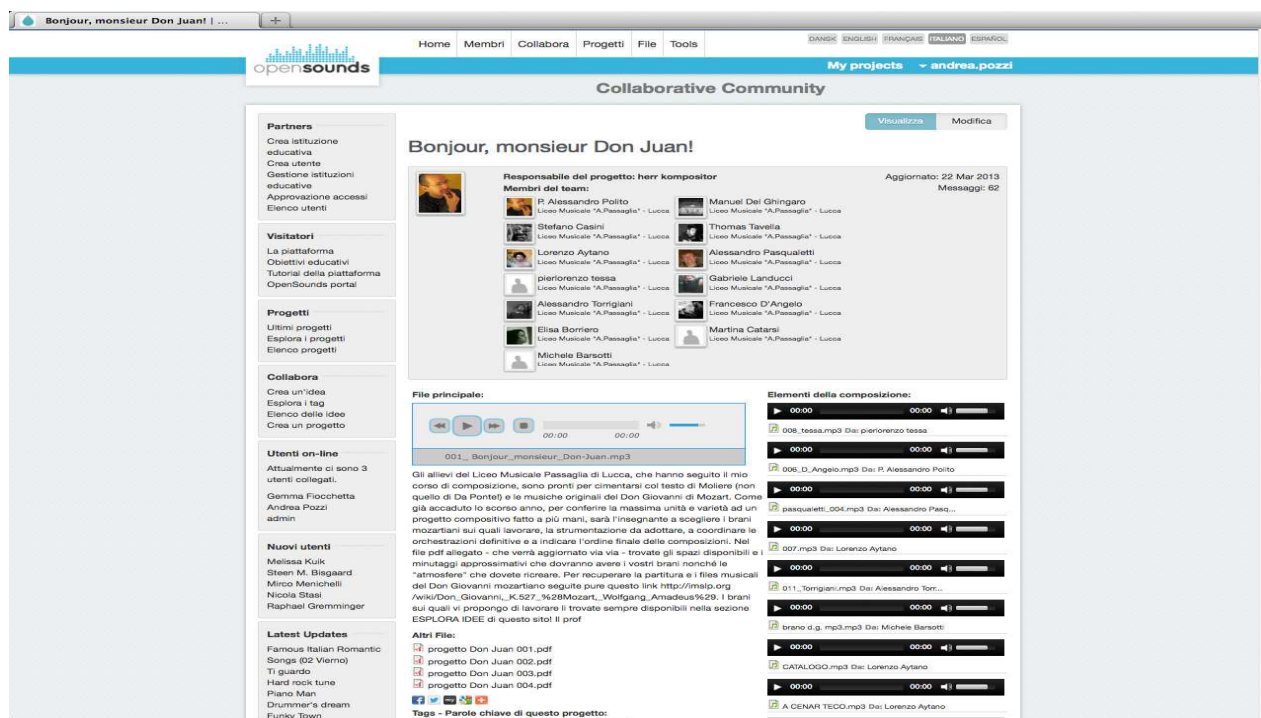
- The first step consists of the creation of a **"idea" type content** allowing an initial idea of project to be sketched by a description, permitting other students from the European network to join in the discussion and form a project group in the area **Create Idea**. A list of all the project ideas is always accessible to visualize the ideas proposed by other students from the network in the **List of New Ideas**, before proposing new ones
- In the second step, the established project group can begin - starting off from the idea - the creation of a content of the **Create Project** "project" type, that is a music production by a number of participants within a dedicated environment that allows:
  - The description of the music project in every cultural and technical aspect;
  - The upload of any kind of audio and text file needed for its realization;
  - The visualization of musical contributions and/or simple comments to the music production made by any student of the team, as well as tracking it down for future consultation.

In the environment dedicated to shared creation - **Create Project** - , as previously pointed out, it is possible to upload any kind of musical file and, more in detail, **any type of Audio and MIDI file, samples, as well as scores, patches and composition schemes. Files**



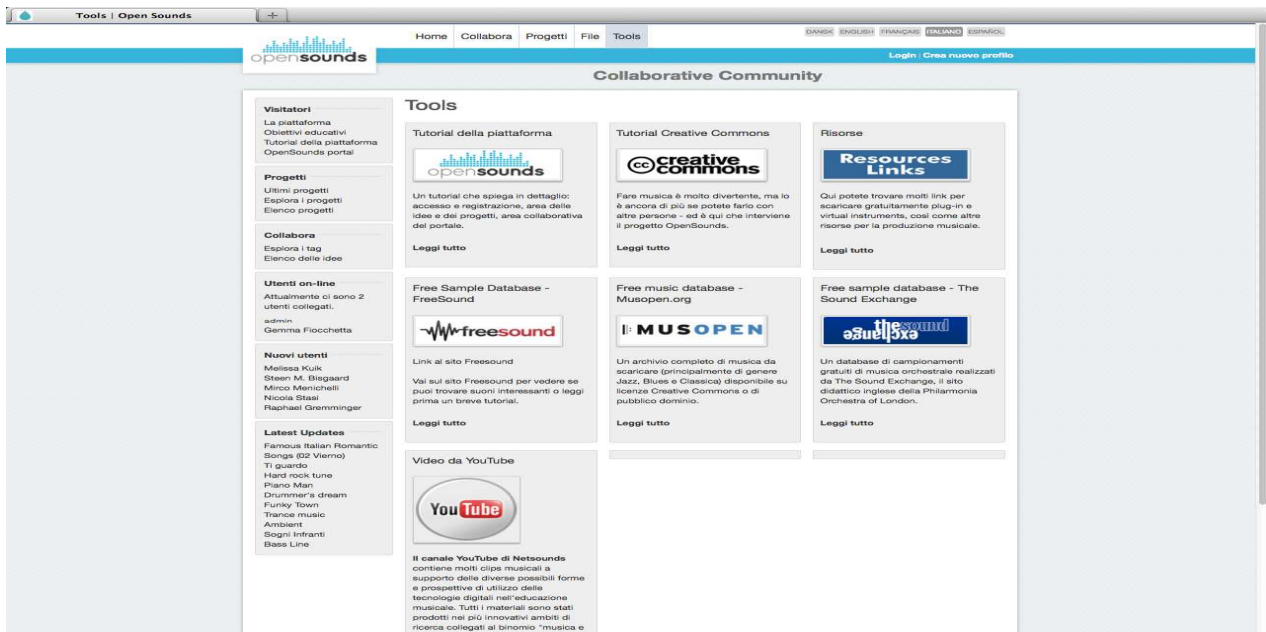
cannot be larger than 100 MB. The allowed file formats are: **wav, mp3, aif, aiffogg, wma, aac, flac, m4a, ape.**

The visualization of every aspect of the project, **description, technical features, files employed, individual contributions and posts** is selectable in the Project area of the **Browse Projects** navigation menu.



The collaborative musical activities are supported thanks to multilingual resources accessible in the **TOOLS** area. More specifically, access is allowed in this area to:

- tutorials about the platform's use and the collaborative, virtual and transnational development of creative music projects
- tutorials about the use of Creative Commons
- tutorials about the use of the Free Sounds database
- presentation and access to other databases of free sounds ([The Sound Exchange - Musopen.org](#))
- resources for the training in the digital music production field.



The platform was built with Drupal 7 technology and is available in Italian, English and Danish. Besides basing the system in Drupal, models available with Open Source license were integrated; moreover, customized functions for portal registration management were inserted, and Drupal's user interface was improved for educational purposes.

All the above mentioned products are also accessible through dedicated links/references thematically arranged, considering both user type and product type being transferred.

The contents in the learning environment thereby help develop creative music products together with supporting tools dedicated to shared elaboration/planning, as well as encouraging and backing the users' workflow and training, who will therefore find in the platform a performing and integrated working environment.

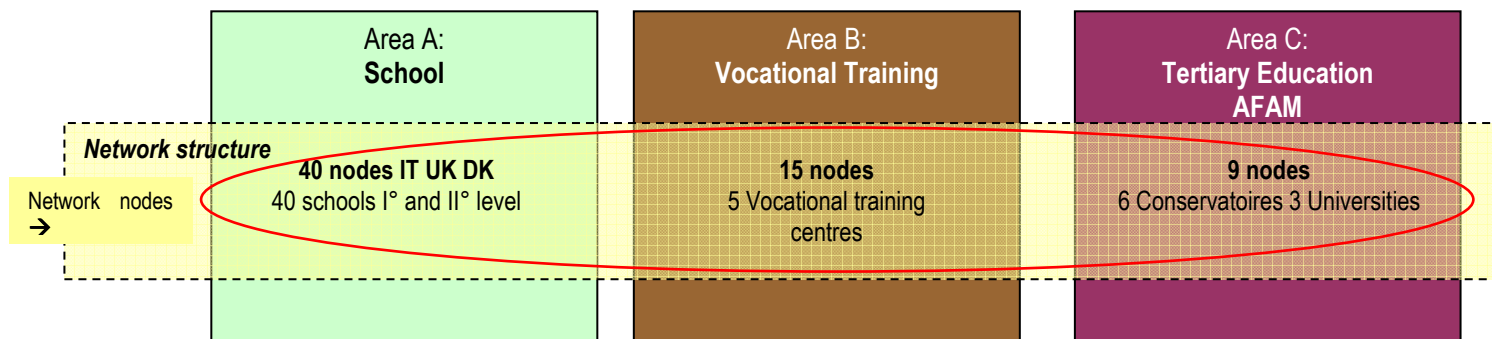
### 3.1.3 Other network resources supporting the transfer action

All the initiatives and forms of communication accomplished by the project partners are further tools to support dissemination action and valorization of all the stages of the project's development as well as of the main results achieved, as described in detail in the "Dissemination and valorization Plan" of the project.

### 3.1.4 Transmission networks and protocols

As previously outlined in the preceding paragraph, *transfer networks* were located in each sector of the partnership countries and their hubs worked adequately for a period, during the testing phase:





These networks, and their related **hubs**, had the role of vectors/catalysts guaranteeing the success of the transfer action from the start.

Their **performance is determined/defined as follows**:

- partly by a series of **tasks/functions they** are entrusted with (depending on the *target group* the user belongs to) and as established in the *protocols*
- partly according to **network agreements**
- finally by **support action**, through dedicated presentation seminars (introduction and support to the project) arranged by the partners responsible for each area.

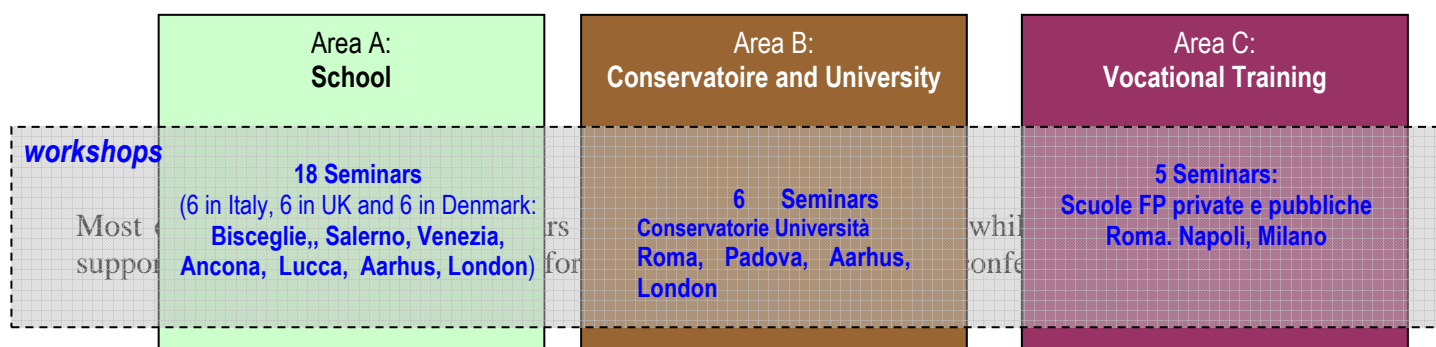
The networks have been also organised and structured to ensure the coordination *of the tutors*, contacted and trained during the seminars with the purpose not only of supporting the testing phase, but also to consolidate in the course of time potential "*system keystones*" for dissemination and valorisation activities that could develop successfully beyond the project's lifespan.

The mentioned meetings established/realized the following:

- preliminary **information activity** about the project
- **shared and** commented/illustrated **access** to the platform, beginning collaborative and creative activity on the platform
- **workshops** with experts in the field to spur interest among potential users and participants

**The seminars that actually took place with networks of students and teachers were**

- **18 for the school sector**
- **6 for the University and Academies sector**
- **5 for public and private vocational training institutions**



As to the **procedures** set up for the transfer testing, they were similar with all the networks referring to the three sectors:

- **Branch planning** of the **network hubs**
- Entering necessary **network contracts** with the third parties backing the project
- **Choosing** for each network hub at least **one teacher user** for a **tutor** post
- **access to the tools** supporting the transfer (based on specific purposes, which take in account the "vocational" training of the *target groups*)
- **submitting an entry form** to access the test and the collaborative activities found on the platform
- **submitting an exit form** at the end of the test activity
- mailing of a **handbook** (structured differently for each sector)
- availability of all **supporting material** deemed useful for a successful transfer action.

### 3.1.5 Questionnaires and other materials supporting the test

The “appendix” section includes the entry and exit assessment questionnaires, implemented on the OPEN SoundS platform and accessible directly from the user profile of every student and teacher participating in the test. These questionnaires were adopted for:

- a) entry and exit registration of the users
- b) a collection of the results of the test as to remarks and evaluations.

#### More in particular

- Part of the **entry form**, most of it required to be completed, asks for *general information*, fundamental for the user management, whereas another part was conceived to collect quality/quantity data, e.g. those regarding entry skills and expectancies, also helpful for statistical purposes
- The **entry form** asks for *general information*, fundamental for the user management, whereas a second part collects data that allow to evaluate the role of the testing activities performed and to suggest improvements to the platform (accessibility, functionality), as well as about the practical usability of products

and the working or training processes within the personal sphere of action. Another key item found in this form is an exit skills assessment (see appendix).

The *forms*, excluding the general part in common for everybody, were arranged according to the peculiarities of each *target* group and its sector.

### **Evaluation with presence**

The testing activities were made thanks to qualitative tools, alongside with the quantitative analysis based on the entry and exit assessment sheets.

Experiences were in fact documented and evaluated through a direct and personal observation carried out, in particular, through **interviews and audio visual material** which were an integral part of the validation process and of the final evaluation report.

### **Validation of the results**

The following procedures are planned for the validation of the results:

- a. Planning beforehand the criteria to collect information about platform access, by implementing entry and exit questionnaires suitable for an organised collection of the data submitted on a voluntary basis by the user through assessment and self-assessment forms (see the draft in the appendix, which will be finalized after the restricted test's first phase)
- b. Systematic collection of the data relating to platform accesses (number of accesses to the single areas and pages, produced material, number of opened forums and of registered interventions, etc.).
- c. qualitative/quantitative analysis of accesses and information drawn from the questionnaires, also with the assistance of external experts
- d. publication and dissemination of the results for the definitive transfer to system.

## 4. Conceptual Framework of the learning environment

### 4.1 The learning environment of OPEN SoundS: learning objectives

The general aims of OPEN SoundS is the re-organization and transfer to system of a virtual learning environment able to supply its young users with the tools needed to develop music production activities on the web within working groups located in different places and allow to have maximum benefit in terms of education and training.

Thanks to highly innovative and creative practices, the project sets out to be an encouraging and supportive tool for the:

- A) development of key skills from the or the initial and continuous training
- B) more realistic opportunity of transition to the labour market

All the above is accomplished through development and management awareness in the creative practices and processes involving digital music and web technologies, within a learning environment specifically planned for this purpose.

According to the project objectives, therefore, a significative and complex aspect was the integration between technological model and pedagogical framework in relation to a defined framework of training objectives and skills realistically achievable by the learners through the use of the designed remote collaboration environment.

The designed environment aims at promoting learning processes and the setting up of activities which can drive innovation in the educational processes of the formal systems. and to facilitate students in the achievement of precise knowledge, skills and competence.

**The framework of the outcomes expected by the students**, as users of the environment, is thus at the foundation of the more general conceptual framework and, besides guiding the aims of project, **has determined the structure, the shape, the contents and the functioning of the actions and the products to be developed**

This framework was built starting from and complying with: a) the descriptors defining the **European Qualifications Framework(EQF)** and the respective 8 levels<sup>1</sup>, in wich is divided (Recommendation of the European Parliament and of the Council on the establishment of the European Qualifications of the European Qualifications Framework for lifelong learning- of April 23<sup>rd</sup>, 2008) and complying with the **European Framework reference on key competences for lifelong learning** as defined by the Recommendation of the European Parliament and of the Council of 18 December 2006.

of the European Qualifications Framework for lifelong learning- of April 23<sup>rd</sup>, 2008-) and in compliance with the European Reference Framework of Key Competences for lifelong learning as defined in the “ Recommendation of the European Parliament and of the Council of 18 December 2006 on key competences for lifelong learning”

More into detail, in the definition and creation of the framework:

1. A series of learning outcomes was selected, as to the use of environments dedicated to music production made by virtual and transnational working teams, as is the case of the OPEN SoundS platform.

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<sup>1</sup>The European Qualifications Framework establishes eight levels, each of them defined by a series of descriptors which indicate the outcomes of the learning, relative to the qualifications of each level in any European qualifications system

2. The selected learning were formulated complying with:
  - **The European qualifications framework of key competences for lifelong learning**
  - **The descriptors of the outcomes and skills established for the qualifications/academic degrees representing levels 6, 7 and 8, and the relative education cycles, in the European Qualifications Framework**
  
3. The learning framework was articulated complying with the descriptors of the three different levels established by the framework (EQF), because in the test, besides students attending the second education cycle (descriptors of level 7) and the public and private vocational training system (eligible target), students present in the first cycle (descriptors of level 6) and from Music Academies (Conservatories) (descriptors of level 7) shall also be involved, in order to check and verify, in the entire vertical chain of musical training and educational potentialities of the use of collaborative learning environments, as in the case of the OPEN Sounds platform.

## Learning targets<sup>2</sup>

### Framework of knowledge, skills and competences in relation to music and technology

<b>KNOWLEDGE<sup>3</sup></b>	<b>SKILLS<sup>4</sup></b>	<b>COMPETENCES<sup>5</sup></b>
<p>In the context of EQF, knowledge is described as theoretical and/or factual.</p>	<p>In the context of EQF, skills are described as cognitive (involving the use of logical, intuitive and creative thinking) and practical (involving manual dexterity and the use of methods, materials, tools and instruments).</p>	<p>In the context of EQF, competence is described in terms of responsibility and autonomy.</p>
<ul style="list-style-type: none"> <li>• Know the new languages and new codes of the music, information and</li> </ul>	<ul style="list-style-type: none"> <li>• Ability to ménage new information and communication languages and codes</li> </ul>	<ul style="list-style-type: none"> <li>• Work, study and plan with some autonomy</li> <li>• .Take responsibility for completing tasks in</li> </ul>

<sup>2</sup> The “**Learning targets**” are declarations of what a learner knows, understands and is able to do at the conclusion of a learning process, which is defined in terms of knowledge, skills and competences.

<sup>3</sup> “**Knowledge**” means the outcome of the assimilation of information through teaching. Knowledge is the whole of the facts, principles, theories and practices connected to a working or studying field. In the context of the EQF, knowledge is described as either theoretical or factual.

<sup>4</sup> “**Skill**” means the ability to apply knowledge and to use know-how to complete tasks and solve problems. In the context of EQF, the skills are described as cognitive (involving the use of logical, intuitive and creative thinking) and practical (involving manual dexterity and the use of methods, materials, tools and instruments).

<sup>5</sup> “**Competence**” means the proved ability to use knowledge, social and/or method skills, in working or studying activities, in professional or personal improvement.

<p>communication world, on the Internet</p> <ul style="list-style-type: none"> <li>• Know the tools for the cooperative team work</li> <li>• Know the use of the network process</li> <li>• Know the procedures and tools for the creation shared of music by digital technologies</li> <li>• Develop of contextualized, integrated and useful musical knowledge,</li> <li>• Access, recognition and valorisation of own curiosity, critical attention, interest to studies and carried out projects</li> <li>• Know the relevance of the development of the creative skill</li> <li>• Know the value of communication, cooperation and negotiation</li> <li>• Access to collaborative learning processes that valorise the diversity of points of view and approaches</li> <li>• Knowledge of processes / learning environments welcoming, motivating and able to strengthen interests and develop vocations</li> <li>• Know the importance of diversity,</li> </ul>	<p>on the Internet</p> <ul style="list-style-type: none"> <li>• Ability to use with autonomy tools and collaborative environments on the net</li> <li>• Ability to use procedures and tools in music creation and sharing by digital technologies</li> <li>• ability to search, understand, select, manipulate and create data and information</li> <li>• Ability to use personal aesthetics, expressive and creative skills</li> <li>• Ability to create and give a real contribution to a shared project development</li> <li>• Ability to integrate accepted knowledge in an informal environment with knowledge learnt in formal contexts</li> <li>• Ability to analyze and suggest solutions to solve problems</li> <li>• Knowledge of personal learning strategies activated in different situations in the proper way</li> <li>• Ability to interact in a critical, positive and constructive way with other people</li> <li>• Ability of Self analysis and self evaluation</li> <li>• Ability to Communicate, cooperate and negotiate</li> </ul>	<p>work or study.</p> <ul style="list-style-type: none"> <li>• Adapt personal behaviour to circumstances in solving problems.</li> <li>• Develop a project with some autonomy.</li> <li>• Manage professional activity or complex projects, take responsibility for decision making in work or study contexts.</li> <li>• Show the skill to lead its own learning and understand the learning processes</li> <li>• review and develop performance of self and others</li> <li>• manage complex technical or professional activities or projects, taking responsibility for decision-making in unpredictable work or study contexts</li> <li>• take responsibility for managing professional and creative development of individuals and groups</li> <li>• manage and transform work or study contexts that are complex, unpredictable and require new strategic approaches</li> <li>• Develop strategic approaches applying specialist knowledge and creative responses</li> <li>• take responsibility for contributing to professional knowledge and practice and/or for reviewing the strategic performance of teams</li> <li>• demonstrate substantial authority, innovation,</li> </ul>
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<p>understanding, membership and multiculturalism</p>	<ul style="list-style-type: none"> <li>• Ability to manage the change and complexity</li> <li>• Ability to express a personal vision of the world showing understanding and respect for diversity</li> </ul>	<p>autonomy, scholarly and professional integrity and sustained commitment to the development of new ideas or processes at the forefront of work or study contexts including research</p> <ul style="list-style-type: none"> <li>• Dimostrare di conoscere l'importanza della diversità, della comprensione dell'appartenenza e della multiculturalità</li> <li>• Demonstrate knowledge of the importance of diversity, understanding, membership, and multiculturality</li> </ul>
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### **Compatibility with the Framework for Qualifications of the European Higher Education Area**

- The descriptor for the higher education short cycle (within or linked to the first cycle), developed by the Joint Quality Initiative as part of the Bologna process, corresponding to the learning outcomes expected for level 5 of the European Qualification Framework.
- The descriptor for the first cycle in the Framework for Qualifications of the European Higher Education Area agreed by the ministers responsible for higher education at their meeting in Bergen in May 2005 in the framework of the Bologna process corresponding to the learning outcomes expected for level 6 of the European Qualification Framework.
- The descriptor for the second cycle in the Framework for Qualifications of the European Higher Education Area agreed by the ministers responsible for higher education at their meeting in Bergen in May 2005 in the framework of the Bologna process corresponding to the learning outcomes expected for level 7 of the European Qualification Framework.
- The descriptor for the third cycle in the Framework for Qualifications of the European Higher Education Area agreed by the ministers responsible for higher education at their meeting in Bergen in May 2005 in the framework of the Bologna process corresponding to the learning outcomes expected for level 8 of the European Qualification Framework for lifelong learning.

## 5. Results of the testing activities

### 5.1 The European Network of Open Sounds (overview)

The overview of the phases and of the numbers of users involved in the testing activities, in different fields/areas of intervention, can show the articulation and the richness of the activities carried out, and the effective use of the OPEN Sounds platform.

To this end, the following is the detailed framework: *areas, phases, the number of network nodes by sector and by stage, the number and the typology of involved users, in the three main sectors of intervention and in the three countries participating in the experimentation.*

	Settore A: Scuola	Settore B: Formazione Professionale	Settore C: Formazione Terziaria (Conservatori)
<b>organizzazione delle reti</b> nodi di rete →	<b>40 nodi</b> in IT DK e UK I ciclo e II ciclo d'istruzione	<b>15 nodi</b> 15 centri di Formazione professionale	<b>9 nodi</b> 6 Conservatori + 3 Università
<b>sperimentazione ristretta</b> gruppi pilota →	<b>12 docenti + 100 studenti</b> di ogni ordine e grado	<b>5 docenti + 80 studenti</b> di centri di Formazione Professionale	<b>6 Docenti + 50 studenti</b> di Conservatorio e di Università
<b>sperimentazione allargata</b> target groups →	<b>60 docenti + 557 studenti</b> in IT DK UK ES <ul style="list-style-type: none"><li>• Scuola secondaria di . sec. 2°</li></ul>	<b>15 docenti + 150 studenti</b> in IT, DK, UK, ES ( Formazione professionale )	<b>11 docenti + 100 studenti</b> in IT, DK, UK ES Conservatori e Università
<b>trasferimento a sistema</b> utenti finali →	<b>10.000 studenti e i loro docenti</b> Tre il 5% e il 10 % degli studenti e dei docenti coinvolti nell'insegnamento della musica attraverso le TD nei tre paesi IT DK	<b>Formazione professionale</b> <b>131 formatori</b> (100% dei formatori certificati) <b>970 studenti</b> (100% degli iscritti all'a.a. 2012/13) (10% ca di 2890 studenti formati in anni precedenti)	<b>Conservatori, Università:</b> <b>docenti</b> (10% dei docenti di Didattica della Musica e di Musica Elettronica presenti nei conservatori) <b>studenti</b> (10 % degli studenti di Didattica della Musica e di Musica Elettronica presenti nei Conservatori)



More in detail and very briefly, as shown in the previous table, the testing phase is enlarged in the three European countries part of the OpenSounds Consortium took the following configuration in terms of:

- The structure and profile of the network testing
- Expectations and knowledge incoming
- Learning process and results

## 5.2 Data collection and results processing

The evaluation phase of the OPENSounds project was conducted in two distinct steps, the first one aims to provide a learning environment fully operational and functional, the second focuses to collect data from users who took part in the testing activities. The approach (based on social networking), and the particular field of action (the shared production of digital music) has required the adoption of a multi-layered approach, focused on gathering data both within formal contexts (such as those collected in the workshops) are on the Web (via web-based access to the survey questionnaires) in order to ensure the opening of the piloting activities to a wider audience, outside the school context.

As explained in 3.1.5 the results of the testing phase were detected in particular through two questionnaires (input and output):

→ The **input questionnaire**, the compilation of which was mandatory for most of the fields, has led to the recognition of the *General Data* for each user finalized to basic user management, data and qualitative/quantitative such as those related to the knowledge, skills and expectations incoming.

→ The output questionnaire aims to collect that part of the information needed to evaluate the results of the experimental activities carried out in terms of: a) technological functionality of the platform (accessibility, usability, usability); b) education and training of potential learning environment experienced; c) quality of products and processes experienced; d) recognition of the users' skills after the testing activities. It was also possible, through open-ended questions, to make assessments made general experience and suggestions for the improvement of the platform.

The process of the significant amount of data collected, more than **540 questionnaires in incoming and 450 in outgoing**, compiled by many teachers and students in the three countries, has allowed a detailed analysis of the processes involved and the results obtained and to evaluate and validate the learning environment and creative experiences made in it by the European network of students and teachers built in Italy, Denmark and Great Britain by the OPEN Sounds Consortium.

In following, search results obtained through experimental activities in Italy, Denmark and Great Britain are described in detail, and more precisely:

- the structure and profile of the network of experimentation in the three partner countries of the project and in the three sectors involved: schools, conservatories, VET
- expectations and knowledge of students and teachers in entry into IT, DK and UK
- the learning process experienced and results achieved in the three countries

### 5.3 The research results obtained through testing activities in Italy

In Italy the OPEN Sounds testing activities was the starting point, the actual possibility of a long and creative phase of innovation within the national training system connected to the music, which involves all its training sectors, with particular reference to high schools of music, to Conservatories, to the system of vocational training.

The establishment of the National Network in the fall of 2011 "Quality and Development and Senior High School Musical and Dance Italian" has facilitated and given impetus to this process.

The activities of OPEN Sounds aim in supporting the growth of the network match with all the objectives of the Italian Ministry of Education, that planned a series of actions, first of all the development of the web portal of the Network of Music and Dance Italian high schools.

The actions of network construction experimentation platform OPEN Sounds matched with the actions of seminars promotion, sharing and development of the portal network of musical high schools. **In this way, the platform OPEN Sounds was greeted by this national network and presented in the 6 seminars**, aimed to teachers of music high schools and dedicated to the validation of the web portal of the network, as a **virtual real space** to be made available to all students and teachers of Italian music High School for creative expression mediated by both the use of music digital technologies and network.

A unique opportunity for growth in the Italian school: the teaching of music mediated by the use of digital technologies; the first European network of students within the education system aims to produce music in virtual and transnational teamwork; the students are able to acquire, through creative process, key competences for the permanent learning and for the possibility to entry into the work market.

#### 5.3.1 Structure and profile of European networks of experimentation: Schools, Conservatories, Professional training

The structure and the profile of the network for the testing activities in Italy has complied with that provided in the Plans and Experimentation: the fields, the number of network nodes by sector and by stage, the number and type of users involved in the three main sectors or intervention: School, Conservatories and Professional training.

##### A) Schools Sector

In this field, in Italy, students and teachers involved in secondary school were those of high schools musical and technical institutes in particular in this area have been directly involved in the activities of music production within the platform:

- 29 schools (high school musical and technical institutes);
- in these 29 schools were about 2000 students in which it was presented the platform (students 1, 2 and 3 class of high school musical) and about 500 students that they do actually developed musical projects the virtual teamwork to the OPEN Sounds web platform;
- students which has been authorized to enter into the platform were selected by their teachers based on the level of their competences in the use of software for music production. The trial forced to make a selection in this sense;

- 30 teachers were instead involved in the management of creative processes in collaborative platform OPEN Sounds with particular reference to: a) the management of access of students b) the support to the development of collaborative projects.

All the objectives included in the plan of the testing phase plan are completely achieved, in terms of: areas, numbers and types of users involved.

In relation with the phase dedicated to put in the system the transfer and the testing plans, OPEN Sounds predicted that the number of potential future users of the transfer activities in the education sector could be at least 10% of these students and their teachers:

- currently approximately 7,000 students are in musical high school (data from Information System MIUR, 2013)
- more in general, 18,186 students in the high school – 4,938 in the Licei High Schools, 921 in the Technical Schools, 438 in Professional Institutes, 600 in the Institutes of Arts – thanks to the provision of additional formation, were given additional access to practical teaching / learning music through digital technologies and the network (data from "Music and Digital Technology in the Italian school", 2010 Report).

It should be pointed out that thank to the direct link between the Open Sounds project and the Italian musical high schools Network, and the direct link on the musical High School web portal Home Page ([www.liceimusicalicoreutici.org](http://www.liceimusicalicoreutici.org)) to the OPEN Sounds web platform, the entire network of about 7,000 Italian students in the music in high schools, starting in the 2013 fall, will be involved in production activities within shared music OPEN Sounds. So the action of capillary transfer which saw being tested the direct involvement in the activities of 29 of the 80 high school musical Italians from the new school year 2013/14 in the next phase the project will involve in the use of the Open Sounds web platform not the 10% but the 100% of all Italian music high school students, surpassing even the most optimistic prevision.

# Web portal Home page of the “Licei musicali e coreutici italiani”:

The screenshot shows the home page of the website [www.liceimusicalecoreutici.org](http://www.liceimusicalecoreutici.org). The browser address bar shows the URL and the page title "Rete Licei Musicali e Coreutici Italiani". The website header features the logo "reteLMC" and a navigation menu with items: "Community", "Reti", "Collabora", "Eventi", and "Crea e partecipa". Below the header, there are sub-navigation links: "Progetto", "Attività della rete", "iLMC", and "Normativa".

The main content area is divided into several sections:

- Introductory Text:** A grey box contains the text: "Il portale della Rete Nazionale 'Qualità e sviluppo dei licei musicali e coreutici italiani' è uno spazio nato per promuovere e sostenere: la comunicazione e l'integrazione tra tutti i Licei italiani che hanno dato vita a percorsi educativi musicali e/o coreutici; lo scambio e la condivisione di progetti, risorse per la formazione, prodotti creativi realizzati da studenti e docenti della rete nel corso delle attività di studio e di ricerca."
- Image Gallery:** A grid of six small images showing various musical and dance activities.
- Le reti:** A section featuring a map of Europe with red dots indicating network locations. A search bar "Cerca nel sito..." is present. Below the map, there is a list of network types: "Rete di scuole", "Rete di studenti", "Conservatori e Accademia", and "Rete di docenti".
- Repositories:** Three featured items with images and titles: "Risorse per la formazione" (Materials educativi e formativi), "Prodotti creativi" (musicali e coreutici), and "Make music" (piattaforma Open sounds).
- Attività della rete:** Four featured items with images and titles: "Indagine nazionale", "Curricolo verticale", "Certificazione competenze", and "Animazione reti".
- Ultimi eventi in calendario:** A section for upcoming events.
- Right Sidebar:** Contains a "Login" form with fields for username and password, a "Ricordami" checkbox, and buttons for "Accesso", "Dimenticate le credenziali?", and "Registrati". Below it is a "Guide on-line" section with links for "Area Community", "Area Reti", "Area Collabora", and "Area Google Apps", each with a brief description of its function.

**Tab1 List of the schools involved in the Italian testing phase:**

Country

Italia

Type

Istituzione educativa

Applica

Name	Country	ModificaIstituzioneEducativa
CSC - Music Informatics	Italia	<a href="#">modifica</a>
Liceo Musicale e Coreutico Alfano 1 Salerno	Italia	<a href="#">modifica</a>
Liceo Musicale "D.A.Azuni" - Sassari	Italia	<a href="#">modifica</a>
Liceo Musicale "A.Bertolucci" - Parma	Italia	<a href="#">modifica</a>
Liceo Musicale "A.Passaglia" - Lucca	Italia	<a href="#">modifica</a>
Liceo Musicale "Farnesina" - Roma	Italia	<a href="#">modifica</a>
Liceo Artistico e Musicale - Potenza	Italia	<a href="#">modifica</a>
Liceo Musicale "S Satta" - Nuoro	Italia	<a href="#">modifica</a>
Liceo Musicale "V. Gambara" - Brescia	Italia	<a href="#">modifica</a>
I.T.I.S. "Enrico Fermi" - Roma	Italia	<a href="#">modifica</a>
Liceo Musicale "Marco Polo" - Venezia	Italia	<a href="#">modifica</a>
Liceo Musicale "Collegio Vescovile Barbarigo" - Padova	Italia	<a href="#">modifica</a>
Liceo Musicale "Caterina Percoto" Udine	Italia	<a href="#">modifica</a>
Liceo Musicale "F. A. Bonporti" Trento	Italia	<a href="#">modifica</a>
Liceo Scientifico e Musicale "G. Marconi" Pesaro	Italia	<a href="#">modifica</a>
Liceo Musicale "Carlo Rinaldini" Ancona	Italia	<a href="#">modifica</a>
Liceo Musicale "T.Stigliani" - Matera	Italia	<a href="#">modifica</a>
IIS Bianchi-Virginio	Italia	<a href="#">modifica</a>
Liceo "Giorgione"	Italia	<a href="#">modifica</a>
Liceo Musicale "Regina Margherita" - Palermo	Italia	<a href="#">modifica</a>
Liceo Musicale "Carducci-Dante" - Trieste	Italia	<a href="#">modifica</a>
Liceo "Pigafetta" - Vicenza	Italia	<a href="#">modifica</a>
Liceo "Montanari" - Verona	Italia	<a href="#">modifica</a>
Liceo Musicale "Carlo Tenca" - Milano	Italia	<a href="#">modifica</a>
Liceo Musicale Statale "A. Manzoni" - Varese	Italia	<a href="#">modifica</a>
Collegio Vescovile Opera Sant'Alessandro - Bergamo	Italia	<a href="#">modifica</a>
Liceo Musicale Statale "P. Secco-Suardo" - Bergamo	Italia	<a href="#">modifica</a>
Liceo Musicale "Carlo Sigonio" - Modena	Italia	<a href="#">modifica</a>
Liceo Musicale "G. Moscati" - Sant'Antimo (NA)	Italia	<a href="#">modifica</a>
Liceo Musicale "P.E.Imbriani" di Avellino	Italia	<a href="#">modifica</a>

## B) Conservatories sector

The structure and the potential educational and training of the learning environment of OPEN Sounds have received particular interest in the educational segment of the tertiary sector.

For the European Conservatories to have a collaborative environment with the characteristics of OPEN Sounds allows you to develop collaborative projects between a conservatory and the other and continue to open a channel of communication and exchange unusual for educational institutions such as those represented by the Conservatories. The use of the platform allows students OPEN Sounds of diplomas The academic level of Electronic Music (related to both addresses: compositional and technical recording studio), to deepen their analytical methods, including the history of technologies applied to music. In addition, the collaborative environment fosters the acquisition by students of appropriate skills concerning the use of electro-acoustic instrumentation and computer.

In this field as well as in that of the school is therefore counts to develop significantly access to the platform. It should also be pointed out that in the portal of the network of Italian high schools Music and Dance as well as the presence of integrated high schools of teachers and students there is also the presence of the Network of Conservatories. There are many opportunities for growth and therefore the integration of experiences and collaborative activities which involve the different educational sectors related to music in our country.

More specifically in the field of tertiary education (Conservatories) have been involved in testing activities 6 Conservatories, 12 teachers in Didactics of Music and in Electronic Music and 100 students.

In advanced transfer system in this area we expect to achieve:

- 10% of teachers in Didactics of Music and in Electronic Music present in conservatories;
- 10% of students in Didactics of Music and in Electronic Music present in conservatories.

**Tab2 List of the Conservatories involved in the Italian testing phase:**

Italia		
Type		
Conservatorio		
Applica		
Name	Country	ModificaIstituzioneEducativa
Conservatory of Music "CesarePollini"	Italia	<a href="#">modifica</a>
Conservatory of Music "Luca Marenzio"	Italia	<a href="#">modifica</a>
Conservatory of Music "Benedetto Marcello"	Italia	<a href="#">modifica</a>
Conservatory of Music "F. A. Bonporti"	Italia	<a href="#">modifica</a>
Conservatory of Music "G. Verdi"	Italia	<a href="#">modifica</a>
Conservatory of Music "N. Paganini"	Italia	<a href="#">modifica</a>

### C) Professional Education System

In this context, the testing activities involving students and teachers of the vocational training system with particular reference to Lazio region. The Lazio Region promotes every year the three-year vocational education and training (IeFP) that are characterized as less theoretical training school and adhere to those aspects of the working world, providing adequate basic cultural education. With the current integrated training system of vocational education and training, the Lazio Region aims to meet the choices of boys responding with an education more and more innovative and in line with the demands of the labor market. Students leaving the school first degree, can fulfill their compulsory education (Legislative Decree no. N.226/2005) as an alternative to the paths of five-year high school education, technical or professional, they can choose a three-years path, IeFP, in order to achieve a vocational qualification.

At the end of three years, students are awarded a professional qualification recognized nationally and matching the levels in the EQF (European Qualifications Framework), including in the field of 21 professionals and addresses to which the Agreement State Regions of 29 April 2010. As expected from the integrated IeFP, students can choose to transit through the system to that state IeFP of Professional Institutes, and vice versa, also in the pipeline and possibly continue until graduation five years.

In this new role, the three-year courses more effectively combine education with specific training and are a valuable tool for the completion of the educational cycle.

In the school year 2010/2011, the students of the Lazio Region enrolled in the first of the three-year annuity IeFP were 2,947.

Thanks to the new formative offer of IeFP, for the school year 2011/2012, if the data of the registrations will be confirmed by the actual attendance, more than 2,964 students enrolled in July, it will be possible to satisfy requests for additional 600 children enrolled in September.

In addition to these 3,375 students who are enrolled in the first year of vocational schools offer participants a subsidiary of State Accounts.

So, in the school year 2011/2012, the educational offer of the Lazio Region will reach a total of around 6,939 young people who have chosen to achieve a regional vocational qualification foreseen by the National Directory.

The figure/professional qualifications required in the context of interest of the OpenSounds project is the *Electronic Operator in Multimedia Address* to which also provides the technical and professional skills that characterize the profile out of the three-year course the ability to use software and basic tools for mounting multimedia applications and techniques of digital audio and video processing.

In the area of public and private vocational training were involved in testing 15 of the most relevant vocational training centers of our country of which 3 are located in the Lazio region (consistent with the project guidelines).

The most important structures currently present in Italy in this sector are involved, effectively allowing us to create a network of hundreds of contacts among teachers, current students and students who have attended in past years the structures of vocational training.

In the experimental activities have been involved 20 teachers of subjects such as Science of Sound Multimedia Communication, etc., and 250 students.

It is estimated that during the transferring to system 100% of the certified trainers in these schools and 100% of the 970 students enrolled in schools years 2012/13 and about 10% of the

2890 students trained in the same school in previous years will be involved in the knowledge and use of the OPEN Sounds platform.

**Tab3 List of the Professional training centers involved in the Italian testing phase:**

Country

Type

Applica

Name	Country	ModificaIstituzioneEducativa
FonderieSonore	Italia	<a href="#">modifica</a>
Percorsi Audio	Italia	<a href="#">modifica</a>
Saint Louis College of Music	Italia	<a href="#">modifica</a>
Nut Academy	Italia	<a href="#">modifica</a>
RE.CREATIVE 12.0	Italia	<a href="#">modifica</a>
NAM Milano	Italia	<a href="#">modifica</a>
Sonus Factory	Italia	<a href="#">modifica</a>
Soundville	Italia	<a href="#">modifica</a>
IITM	Italia	<a href="#">modifica</a>
LatenzaZero	Italia	<a href="#">modifica</a>
IED	Italia	<a href="#">modifica</a>
Accademia di MusicaNomos	Italia	<a href="#">modifica</a>
Scuola Alto Perfezionamento Musicale	Italia	<a href="#">modifica</a>
SAE Institute	Italia	<a href="#">modifica</a>



### 5.3.2 Expectations and Knowledge

The processing of the data collected in Italy, following the completion of the pre-questionnaire from students and teachers who took part in the activities of experimentation, is summarized in this section of the report.

As widely pointed out the questionnaire input has allowed the recognition of the general data of each individual user data and qualitative/quantitative concerning the knowledge, skills and expectations on entry.

Let's look in detail the results of the processing of these data.

#### **Composition of the sample**

248 students aged between 15 and 59 years have participated in the survey and have responded to questions on a voluntary basis.

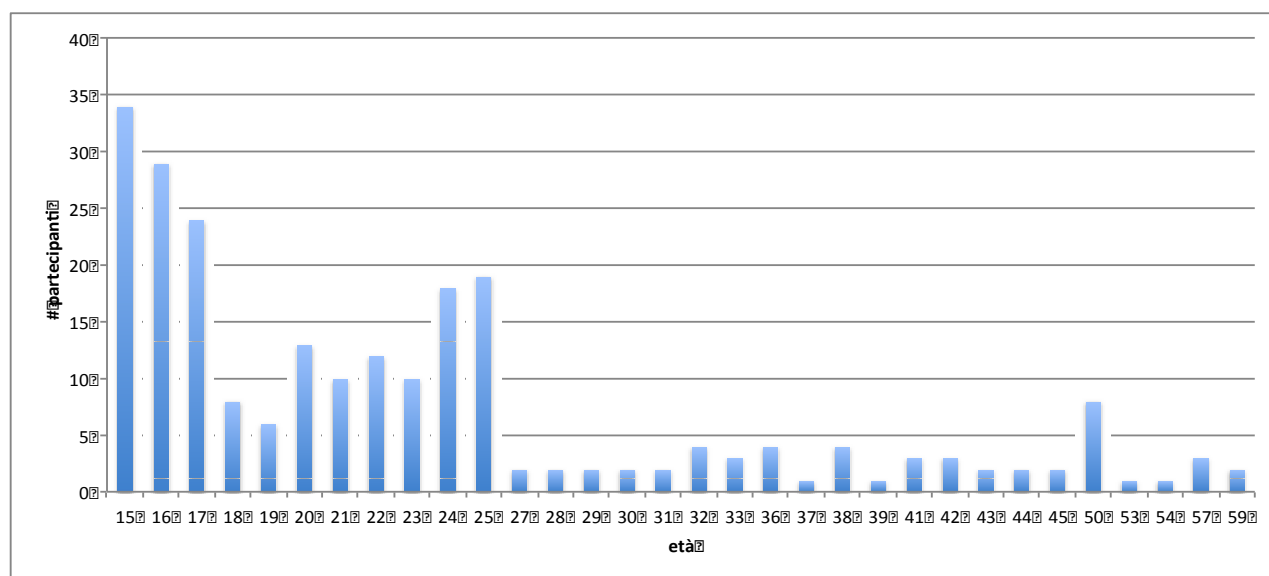
The average age is 24.1 years.

The age distribution is shown in the figure.

Only 16.9% of students who responded to the questionnaire are female.

53.1% come from the school system of high schools, 30.5% of the system of vocational training, 16.5% from music conservatories.

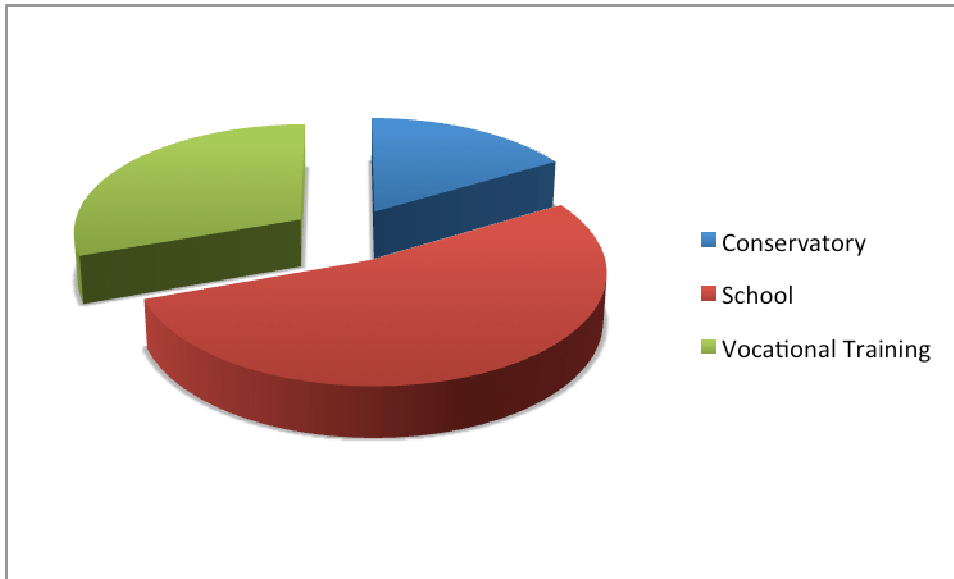
The sample represents slightly less than 50% of the students who participated in the trial. In addition, the distributions by age, gender and school system are consistent with those of the entire set of students who participated in the OPEN Sounds testing activities.



**Figure 5.1:** Distribution by age of the participants in the evaluation questionnaire.

Total		Total	
F	45	F	18,1%
M	203	M	81,9%
<b>248</b>		<b>100,0%</b>	

**Table 5.1:** Breakdown by gender of the participants in the evaluation questions.



**Figure 5.2:** Distribution of participants in the evaluation questionnaire on the basis of belonging to the school system (the music conservatory, high schools and professional technical schools, vocational training)

	Total
Conservatory	40
School	129
Vocational Training	74
<b>Total</b>	<b>243</b>

	Total
Conservatory	16,5%
School	53,1%
Vocational Training	30,5%
<b>Total</b>	<b>100,0%</b>

**Table 5.2:** Distribution of participants in the evaluation questionnaire on the basis of belonging to the school system (the music conservatory, high schools and vocational technical schools, vocational training).

### **Prior knowledge**

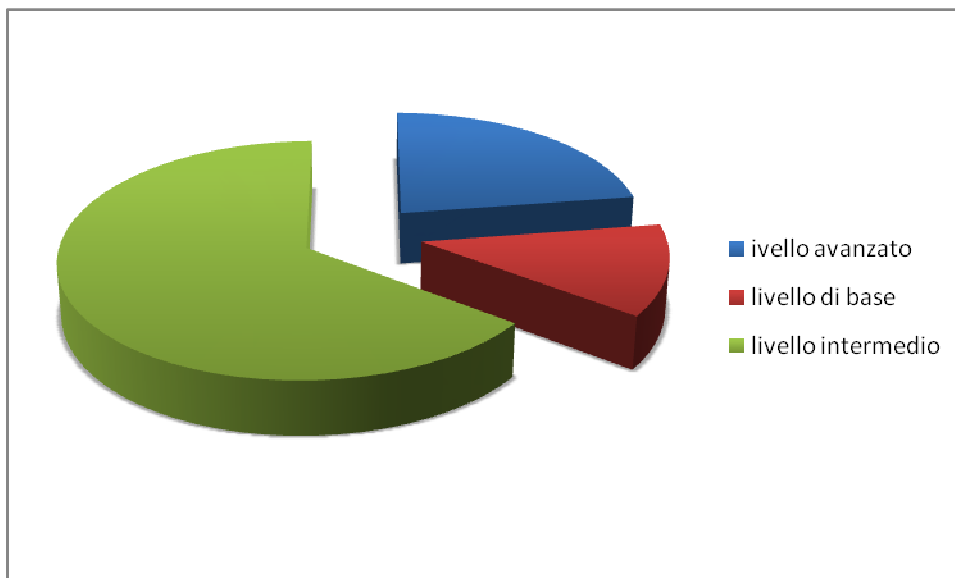
The first part of the questionnaire, among other indicators, had the objective of determining what were the initial knowledge of the students who participated in the testing, in the two OPENSounds fields of interest: music and web 2.0 technologies.

An analysis of the processed data showed that all participants in the trial have good musical skills. Over 90% of the sample plays a musical instrument. Of these about 65% declares to play it at the intermediate level, 12.6% at the grassroots level and 22.6% at the advanced level. Almost 94% of participants use social networking tools, e.g., Facebook, Twitter, My Space, demonstrating the wide dissemination of these tools among the new generations. However, less than half (48.9%) used them to school, as a support for educational activities.

	Total
No	20
Si	204
<b>Total</b>	<b>224</b>

	Total
No	8,9%
Si	91,1%
<b>Total</b>	<b>100,0%</b>

**Table 5.3:** Number of students who play a musical instrument.



**Figure 5.3:** Distribution of participants according to the level of musical competence.

	Total
livello avanzato	45
livello di base	25
livello intermedio	129
<b>Total</b>	<b>199</b>

	Total
livello avanzato	22,6%
livello di base	12,6%
livello intermedio	64,8%
<b>Total</b>	<b>100,0%</b>

**Table 5.4:** Distribution of participants according to the level of musical competence.

	Total
No	14
Si	213
<b>Total</b>	<b>227</b>

	Total
No	6,2%
Si	93,8%
<b>Total</b>	<b>100,0%</b>

**Table 5.5:** Participants who use social networking tools.

	Total
No	113
Si	108
<b>Total</b>	<b>221</b>

	Total
No	51,1%
Si	48,9%
<b>Total</b>	<b>100,0%</b>

**Table 5.6:** Students who have used social networking tools in supporting school activities.

## Expectations

The most important evaluation entry was the attention paid to expectations, defined as "images" and "meanings" evoked by the ability to create music together in a dedicated environment and within a team of virtual work and transnational. Expectations arrangements, in short, as the constituent material of "representation" of the experience, the act by which he was transferred "from outside to inside, from one space away to a neighbor, what was not

known, and it is been integrated in the physical and mental universe of participants in the trial that has resulted thus enriched and transformed”<sup>6</sup>.

The expectations, therefore, and their collection in our valuation model have formed a central aspect as part of the social process where they are gradually made the "features" that motivated the experience itself connected to OPEN Sounds.

To the question: **What do you expect from participating in the testing phase of OPEN SOUNDS?** The framework of the answers given by students and teachers interviewed appears very consistent (Table 5.7): With a severe under-representation of answers 1 and 2 (*Very little*) of the scale of liking and with a significant presence of answers focused on the values of 4:05 (and *very much*) of favourability scale from 1 to 5 and an average attendance of responses focused on the value of 3 (satisfactory) on the scale of satisfaction.

**Being able to having the opportunity to meet other students, with the same interests and vocations** is the scale with the expectation that has the highest percentage of answers *very much* (48.8%) and the average percentage of 31.6% satisfaction. Very encouraging if we think that the vocational aspect of the experience is the element considered central to the success of a virtual learning community, as these communities, before anything else, defined as "vocational communities".

And the fact that SOUNDS OPEN is recognized and represented by its users primarily as vocational community improves his chances of success and future development of those to concretely support every day, in the European School, the purposes of education and training project.

	1	2	3	4	5	Average much/very much
<b>Modality</b>	<b>Very little</b>	<b>little</b>	<b>average</b>	<b>Much</b>	<b>Very much</b>	
having the opportunity to create music online with people from other countries	0,5%	1,8%	14,2%	42,2 %	41,3%	<b>32.56%</b>
having the opportunity to live a new and stimulating educational experience	0,9%	1,8%	12,8%	56,9%	27,5%	<b>32.4 %</b>
having the opportunity to meet other students, with the same interests and vocation	1,4%	3,7%	10,7 %	35, 3 %	48,8 %	<b>31.6%</b>
having the opportunity to learn knowledge in the field of musical production by means of digital technologies	1,4%	3,7%	22,0%	55, 0%	17,9%	<b>31,6%</b>
having the opportunity to learn knowledge in digital technologies and web 2.0 collaborative environment	1,4%	6,5%	22,6%	51, 6%	18,,0%	<b>30.73%</b>
having the opportunity to acquire real-life skills that will expand my future employment opportunities	1,9%	11,2%	22,4%	39,3%	25,2%	<b>29,9%</b>
having the opportunity to strengthen the sense of belonging to a group and citizenship	8,8%	14,7%	27,2%	30,0%	19,4%	<b>25.53%</b>

**Table 5.7:** the expectations of participants in the trial of OPEN Sounds

<sup>6</sup> *Il fenomeno delle rappresentazioni sociali* by S. Moscoviti, in *Rappresentazioni Sociali* Robert M.Farr and Serge Moscovici (eds.), Bologna, Il Mulino, 1989.

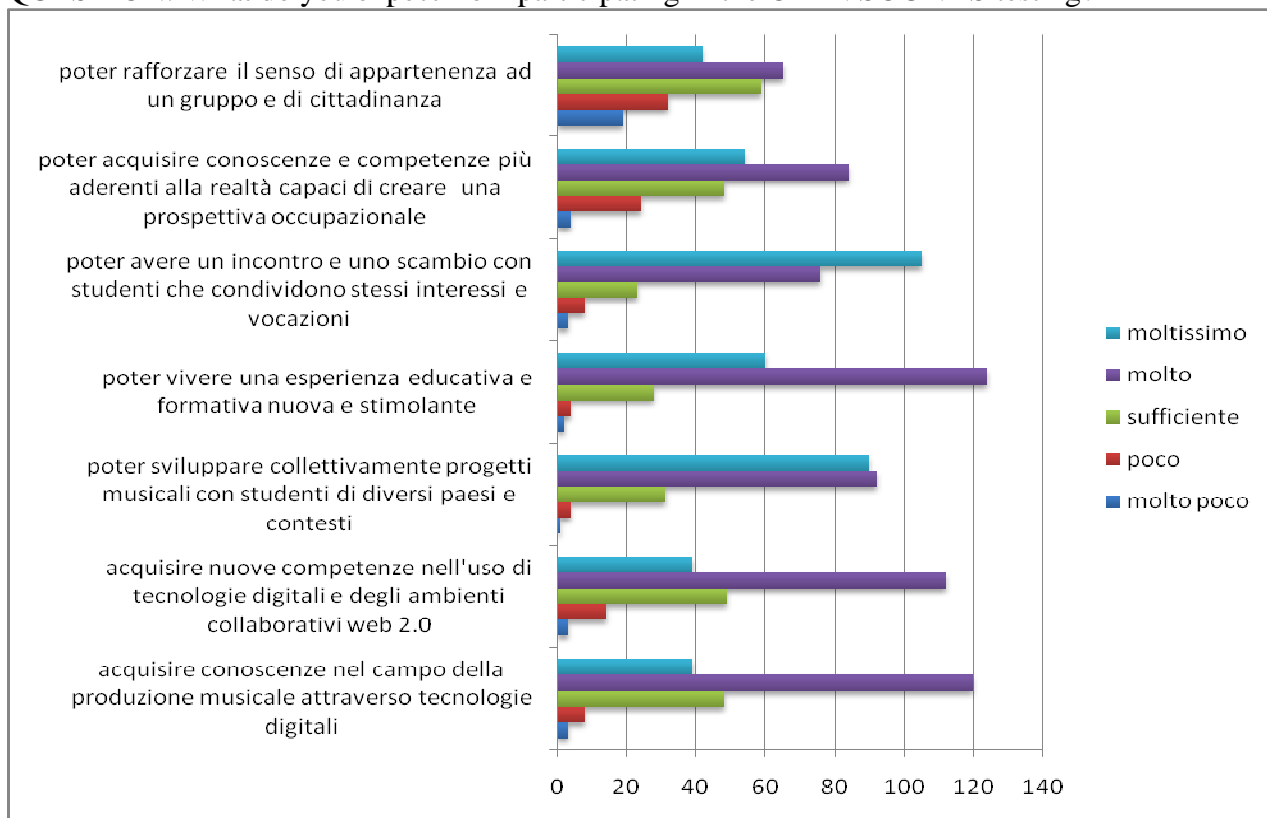
Other widely shared expectations are: a) to have the opportunity to collectively develop musical projects with students from different countries and contexts (average 32.56%), which underlines the aspiration of students to broaden their contacts outside the national borders; b) to be able to live an experience in education and training new and exciting that instead emphasizes the need to live within the school experiences that will enhance the overall attractiveness and that stimulate in them the desire to create and learn.

In terms of expectations are immediately past with rates very close to the desire to acquire knowledge in the field of music production through digital technologies (31.6%) and to acquire new skills in the use of digital technologies and web 2.0 collaborative environment (30.73%).

Being able to acquire knowledge and skills more realistic capable of creating an employment perspective with 29.9% had a high level of interest, however, and very close to the previous one.

In apparent contradiction with other results, it should be noted that one of the expectations is not shared to strengthen the sense of belonging to a group and citizenship. This figure can make us reflect on the concept of citizenship as conceived by the younger generation, inclined to favor informal contacts rather than sharing a set of rights and duties.

**QUESTION:** What do you expect from participating in the OPEN SOUNDS testing?



**Figure 5.4:** the expectations of participants in the OPEN Sounds testing phase.

### 5.3.3 Learning process and results

In this section the results of the data collected through the questionnaire output are presented. As already pointed out the questionnaire made it possible to collect and analyze that part of the information needed to evaluate the results of the testing activities concerning:

- a) the technological functionality of the platform (accessibility, usability, usability);
- b) the potential educational and training the learning environment experienced;
- c) the quality of products and processes experienced; d) the recognition of the skills after the testing phase.

It was also possible through the analysis of open-ended questions about the project to acquire feedback and suggestions for the future improvement of the platform.

The analysis of the collected data through 208 questionnaires filled out by students and teachers who inspired the testing activities has allowed us to access a variety of constituent elements of the learning process related to your use of OPEN Sounds and assess the platform's ability to support the technological and educational training objectives of the project the main results achieved in terms of knowledge and skills.

Let us examine in more detail the results of these data processing.

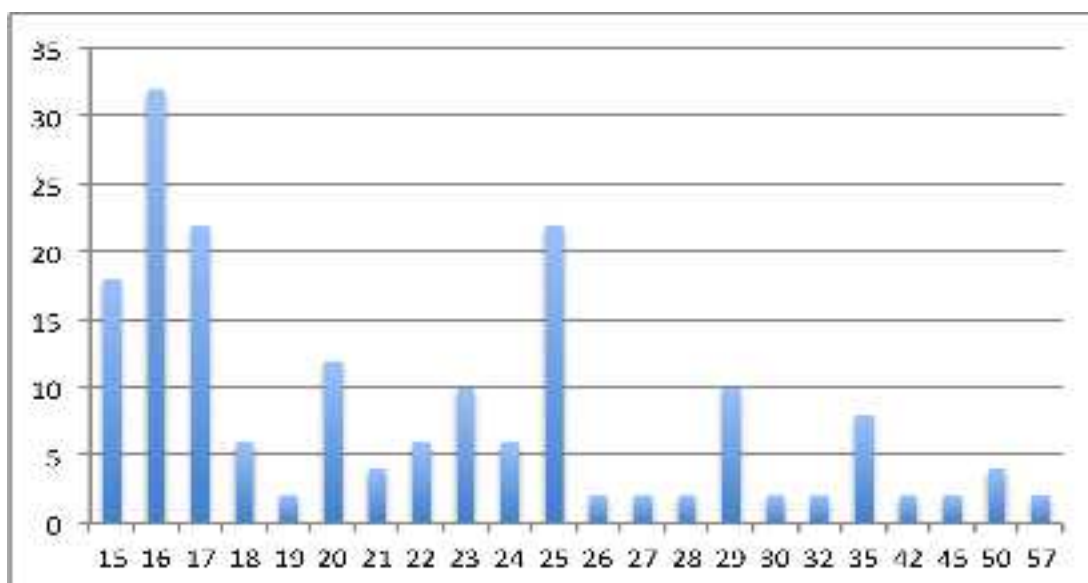
208 between students and teachers aged 15 to 57 years old filled out the exit questionnaires.

The average age is 22.6 years. The age distribution is shown in the graph below (Fig 5.5)

Only 24% of users who responded to the questionnaire are female.

51.3% come from the school system of high schools, 32.8% of the system of vocational training, 15.9% from music conservatories.

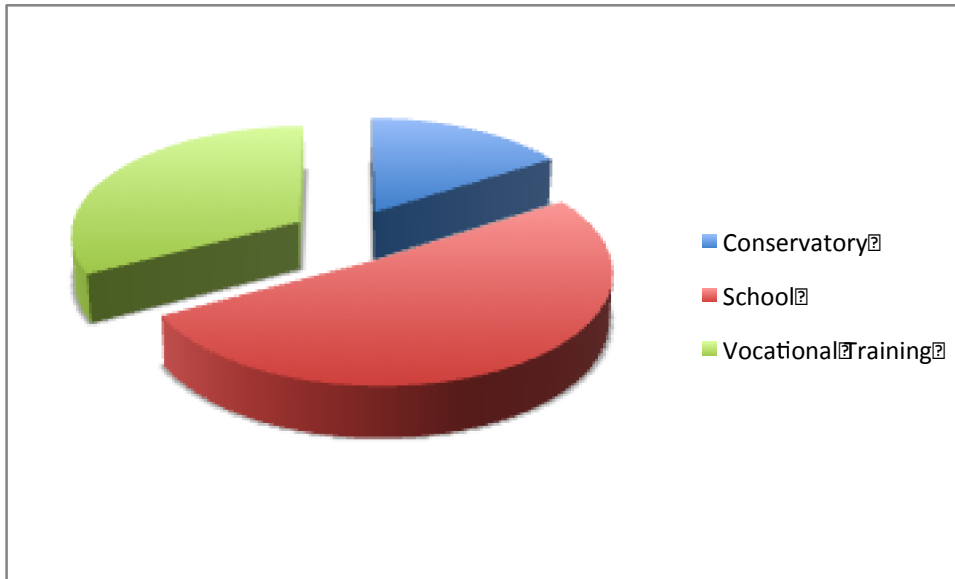
In addition, the distributions by age, gender and school system are consistent with those of the entire set of students who participated in the Open SoundS testing.



**Figure 5.5:** Distribution by age of participants in the post-questionnaire.

Total		Total	
F	50	F	24,0%
M	158	M	76,0%
<b>208</b>		<b>100,0%</b>	

**Table 5.8:** Breakdown by gender of participants in the post-questionnaire.



**Figure 5.6:** Distribution of participants in the post-questionnaire on the basis of belonging to the school system (the music conservatories, high schools and technical institutes, vocational training).

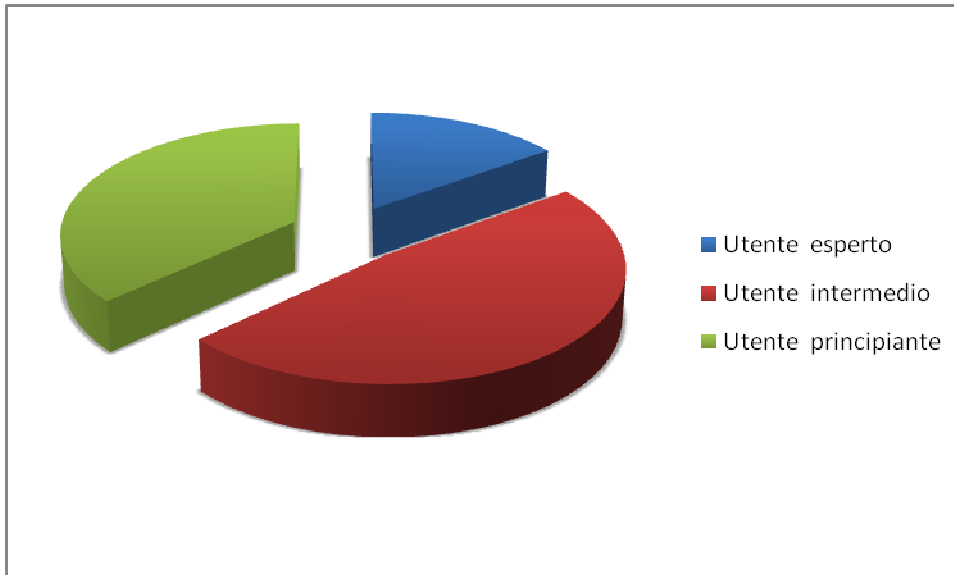
The first part of the post-questionnaire on the functionality of the learning environment, on the practices and results related to the testing of OPEN Sounds provides some useful information about:

1. the use of tools / social networking sites such as facebook, twitter, myspace, etc.;
2. competence in the use of Web 2.0 technologies specialized in the presentation and exchange of music (eg SoundCloud, Myspace, Indaba Music, etc.);
3. competence in the use of Web 2.0 technologies dedicated to producing music in a collaborative and remote way (e.g., ccMixer etc.);
4. the use of tools such as those mentioned above during school activities to support the teaching.

In particular, the analysis of the answers given to the question **What is your experience/expertise using Web 2.0 technologies specializing in the presentation and exchange of music (e.g., SoundCloud, Myspace, Indaba Music, etc.)** show that only 15.1% are an advanced user, 48.8% is an intermediate user and 36.9% are beginner (Table 5.9).

	Total		Total
Utente esperto	27	Utente esperto	15,1%
Utente intermedio	86	Utente intermedio	48,0%
Utente principiante	66	Utente principiante	36,9%
	<b>179</b>		<b>100,0%</b>

**Table 5.9:** Competence in the use of Web 2.0 technologies specialized in the presentation and exchange of music.



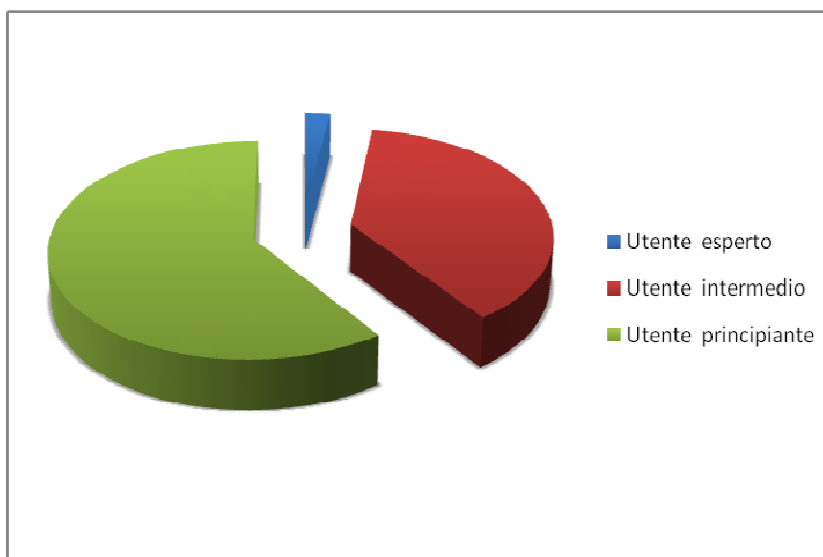
**Figure 5.7:** Competence in the use of Web 2.0 technologies specialized in the presentation and exchange of music.

To the question of the competence in the use of Web 2.0 environments dedicated to the production of music in a collaborative and remote (e.g., ccMixer, etc.), 59.9% of users responded that they be beginners (106 of 177) and only 4 users out of 177 declare themselves experts.

	Total
Utente esperto	4
Utente intermedio	67
Utente principiante	106
<b>Total</b>	<b>177</b>

	Total
Utente esperto	2,3%
Utente intermedio	37,9%
Utente principiante	59,9%
<b>Total</b>	<b>100,0%</b>

**Table 5.10:** competence in the use of Web 2.0 technologies dedicated to the music production in a collaborative and remote.



**Figure 5.8:** Competence in the use of Web 2.0 technologies dedicated to producing music in a collaborative and remote way.



Finally, 48.6%, 87 out of 179 users claim to use web 2.0 tools in the school connected to the music in support of educational activities.

	Total		Total
No	92	No	51,4%
Si	87	Si	48,6%
	<b>179</b>		<b>100,0%</b>

**Table 5.11:** use of web 2.0 tools related to music in support of educational activities.

### Learning processes

To the question “Below are different ways of learning. In your opinion, what is more useful for your successful learning?”, the learning may widely preferred by the participants in the testing (51.7% response rate *much* and 42% *very much*) of the consensus appears to be that of “practice”. The answer assumes interest associated with the second mode chosen “being able to discover and explore” (42.7% *much* and 47.8% *very much*). Two other modes considered very much motivating and useful are the feel involved (50.0% and 38.2%) and the possibility of being able to compare with other (51.1% very and 30.6 %).

So we find in the foreground elements of making concrete, exploration and discovery, emotional involvement, the comparison with others. The autonomy in access to and knowledge management, the ability to express their vocation, experience sharing for students part of the network of Open Sounds are aspects of the relationship and the educational practice really capable of making accessible, motivating and engaging the learning process.

Other ways considered suitable and useful to motivation are those of “being able to enjoy yourself” (25% and 55.1%), to “working within a group” (51.5% and 23.9%) and the possibility of “knowing exactly what to do” (53.9% and 25.3%)

The prevalence in the responses related to these aspects point out two other key elements of the project OPENSounds, consisting of the involvement of the student as the main actor of the learning process and collaboration with other students as a key element of training peer.

The analysis of data related to this question is of particular importance because they anticipate and show that the key to the success of the platform OPEN Sounds and the potential of its use in the educational environment are closely correlated with its educational system.

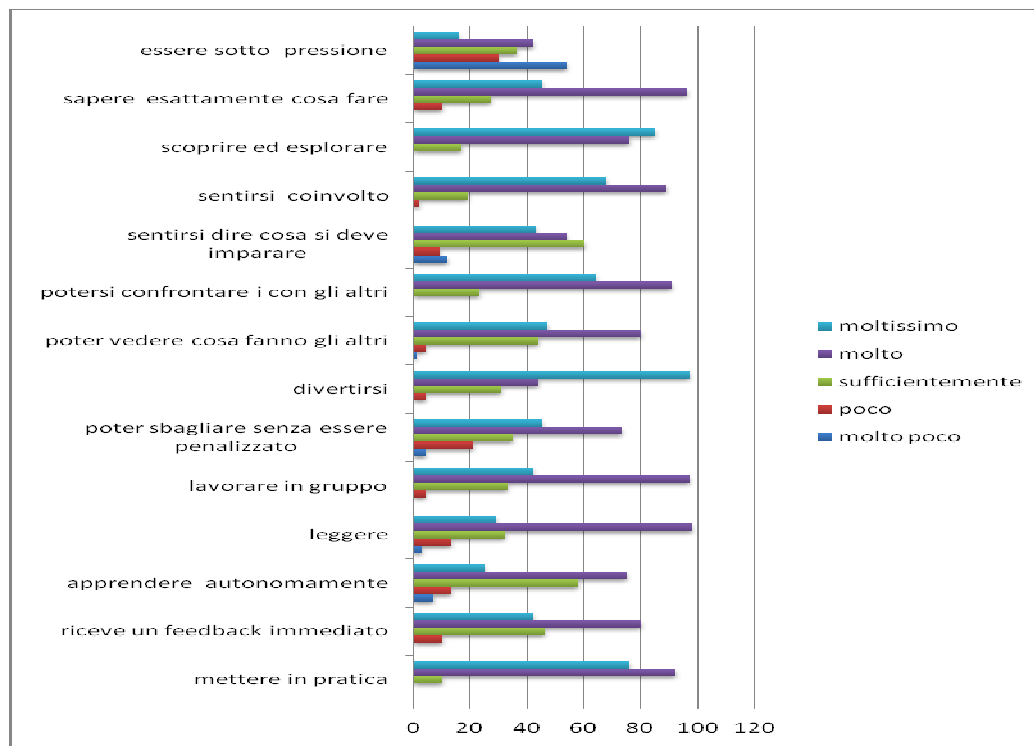
In fact, the structure and goals of the learning environment of OPEN Sounds are highly consistent with the mode of learning held by the students and are suitable to their educational growth. And in this correspondence we can state lies the key to its success from the network of European students that gave rise to experimentation.

All aspects highlighted by the students describe very precisely, even if indirectly, the reasons for the importance of using an integrated learning environment capable of supporting creative autonomy and planning, teamwork, respect for the values emotional experience, calibrated and integrated use of digital technologies in the musical life, in the network and in particular in the school.

Very little	little	average	much	very much	Average much-very much
-------------	--------	---------	------	-----------	------------------------

practice	0,0%	0,0%	5,6%	51,7%	42,7%	47,2%
receiving immediate feedback	0,0%	5,6%	25,8%	44,9%	23,6%	34,25 %
learning on your own/alone	3,9%	7,3%	32,6%	42,1%	14,0%	28,05%
reading	1,7%	7,4%	18,3%	56,0%	16,6%	33,3%
working within a group	0,0%	2,3%	18,8%	55,1%	23,9%	39,5%
being allowed to make mistakes without being penalised for that	2,2%	11,8%	19,7%	41,0%	25,3%	33,15%
being able to enjoy yourself	0,0%	2,3%	17,6%	25,0%	55,1%	40,05%
being able to observe other people	0,6%	2,3%	25,0%	45,5%	26,7%	36,1%
being able to confront other people	0,0%	0,0%	12,9%	51,1%	36,0%	43,55%
being told what to learn	6,7%	5,1%	33,7%	30,3%	24,2%	27,25%
how engaged you are	0,0%	1,1%	10,7%	50,0%	38,2%	44.1%
being able to discover and explore	0,0%	0,0%	9,6%	42,7%	47,8%	45,25%
knowing exactly what to do	0,0%	5,6%	15,2%	53,9%	25,3%	39,6%
being under pressure	30,3%	16,9%	20,2%	23,6%	9,0%	16,3%

**Table 5.11:** learning modes considered suitable and useful for the participants in the testing.



**Figure 5.9:** learning modes considered suitable and useful for the participants in the trial.

## Assessment of the educational and training of the OPEN Sounds platform

To the question “By participating in the testing of OpenSounds, I found interesting and useful for my growth in education and training...” with a severe under-representation of answers 1 and 2 (*noting much*) of the favourability scale from 1 to 5 and a significant number of responses focused on the values 4, 5 (much and very much) on the same scale, including aspects/tools judged to be more interesting and useful by the participants are in the first place “having the opportunity to create music collaboratively”. Other aspects considered are the relevant “being able to select the members of my team and start a new creative idea with them”, “having the opportunity to create music online with people from other countries”, “having the opportunity to meet other students, with the same interests”, “having the opportunity to work in an integrated and supportive educational environment that provides access to a plethora of tutorials, guides and databases”.

Less central, though significant, are the aspects related to the strengthening of the sense of citizenship and employment prospects.

Therefore, students and teachers involved in the testing activities are totally in tune with the goals from the experienced, are able to recognize and appreciate the potential of education and training and, indirectly, the importance of its use in teaching practice fielding of the school.

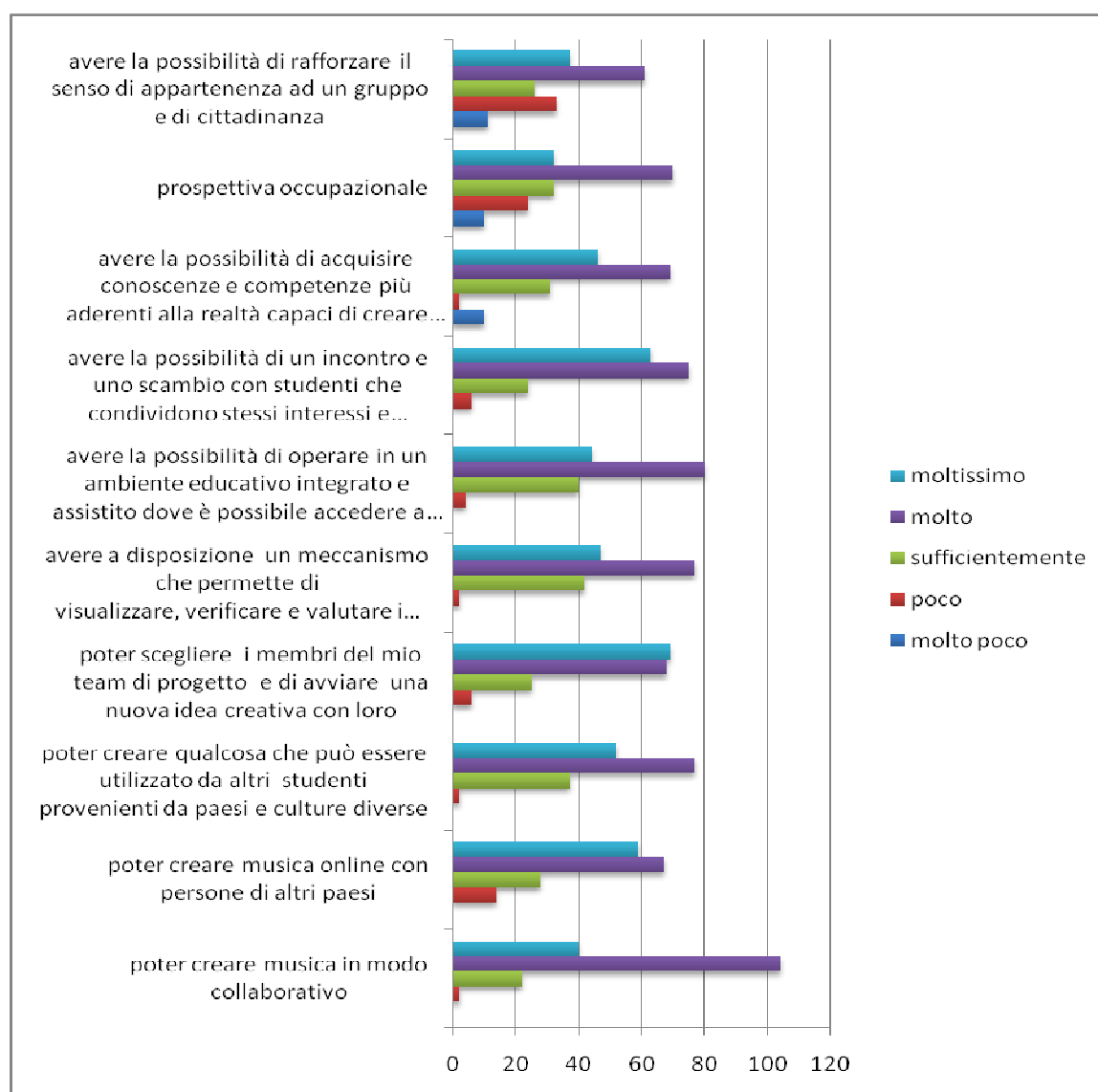
The percentages reveal a framework of expectations fairly well outlined, in which users seem to want to leave little to chance. The higher expectations in the approach to creating a shared network, transnational and mediated by sound technologies, connect with those associated with the purchase of new instruments, working methods, approaches to knowledge and musical skills and teaching

In line with the reading of the data to follow, you can also see how much the aspect of sharing as that of the development of collective projects represent the frontiers of evolutionary relationship with the technologies of considerable strategic importance and now in the clear way of acquisition.

	Very little	little	average	much	very much
having the opportunity to create music collaboratively	0,0%	1,2%	13,1%	61,9%	23,8%
having the opportunity to create music online with people from other countries	0,0%	8,3%	16,7%	39,9%	35,1%
being able to create something that can be used by other students from different countries and backgrounds	0,0%	1,2%	22,0%	45,8%	31,0%
being able to select the members of my team and start a new creative idea with them	0,0%	3,6%	14,9%	40,5%	41,1%
being able to clearly see other people's contributions and how these had been used in the various projects	0,0%	1,2%	25,0%	45,8%	28,0%
having the opportunity to work in an integrated and supportive educational environment that provides access to a plethora of tutorials, guides	0,0%	2,4%	23,8%	47,6%	26,2%

and databases					
having the opportunity to meet other students, with the same interests	0,0%	3,6%	14,3%	44,6%	37,5%
having the opportunity to acquire real-life skills that will expand my future employment opportunities	6,3%	1,3%	19,6%	43,7%	29,1%
having the opportunity to strengthen the sense of belonging to a group and citizenship	6,0%	14,3%	19,0%	41,7%	19,0%
having the opportunity to create music collaboratively	6,5%	19,6%	15,5%	36,3%	22,0%

**Table 5.12:** aspects of the OPEN SOUNDS platform considered useful from the point of view of training and education.



**Figure 5.10:** aspects of the OPEN SOUNDS platform considered useful from the point of view of training and education.

## Usability evaluation of the OPEN Sounds platform

The analysis of the data relating to the question "thinking about the platform Open Sounds describe the actual level of accessibility / usability of the platform and technical functionality of the tools for remote collaboration provided" as revealed by the participants in the trial have been evaluated in positively different aspects that characterize the technical functionality, accessibility / usability, the ability to support creative expression the use of informal and formal skills possessed by the students.

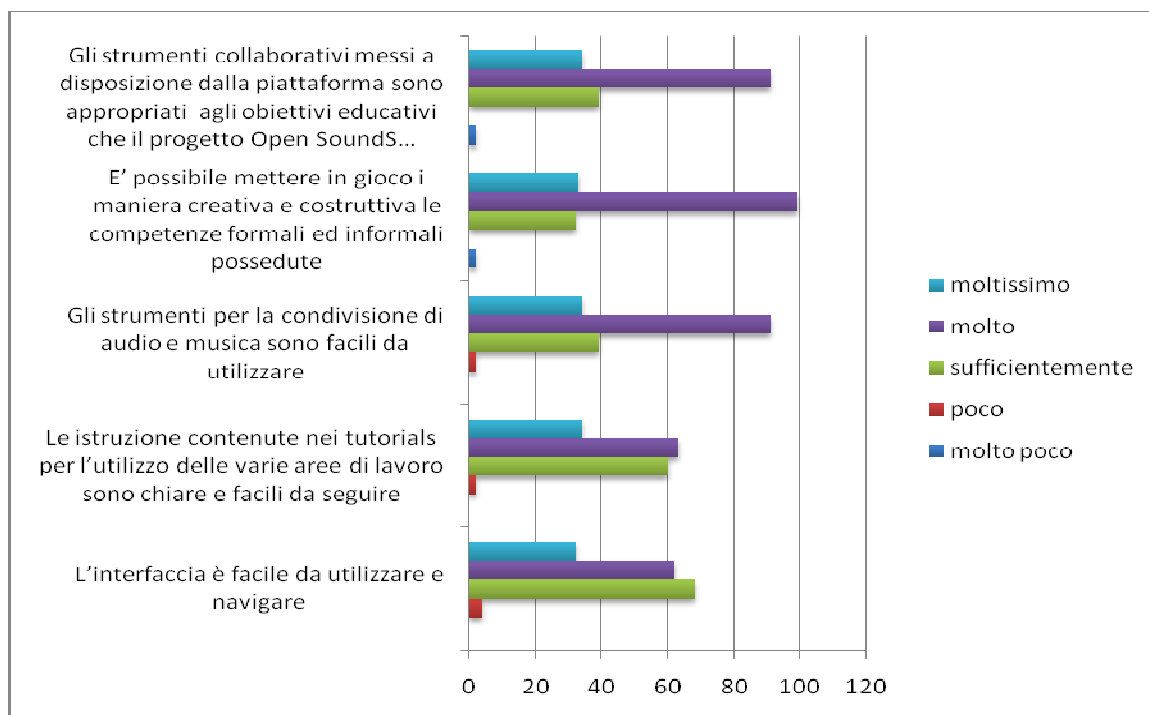
With a very low presence of answers 1 and of the favourability scale 1-5 and with a significant presence of answers focused on the value 4 (*much*) we see that 59.6% (very liking scale) of users declares that the practices implemented in the OPEN SOUNDS platform "enabled me to play in a creative and constructive way, enhancing my formal and informal skills".

Students and teachers at 54.8% (very liking scale) of the cases also believe that "The collaborative tools are appropriate and closely aligned to the OpenSoundS project objectives" and that "The tools available for sharing the music/audio files were easy to use".

Always popular are "The guides, tutorials and instructions available on the OpenSoundS platform where clear and easy to follow".

	Very little	little	average	much	very much
It is easy to use and navigate	0,0%	2,4%	41,0%	37,3%	19,3%
The guides, tutorials and instructions available on the OpenSoundS platform where clear and easy to follow	0,0%	1,3%	37,7%	39,6%	21,4%
The tools available for sharing the music/audio files were easy to use	0,0%	1,2%	23,5%	54,8%	20,5%
It enabled me to play in a creative and constructive way, enhancing my formal and informal skills	1,2%	0,0%	19,3%	59,6%	19,9%
The collaborative tools are appropriate and closely aligned to the OpenSoundS project objectives.	1,2%	0,0%	23,5%	54,8%	20,5%

**Table 5.13:** usability of the OPEN Sounds platform.



**Figure 5.11:** usability of the OPEN Sounds platform.

### ***Assessment of the contribution of OPEN Sounds development of knowledge and skills***

The ability to capture aspects of the analysis on the effects teaching / operational related to the use of the OPEN Sounds platform and more generally the use of digital technologies and the network's musical education has constituted the most important goal of the process of evaluation of the results of the trial.

The data that emerged from the responses to the question of the questionnaire outgoing asked to indicate to what extent the environment and tools OPEN Sounds had contributed to the development of specific knowledge and skills is a focal point of interest because they provide the updated documentation on penetration of DT in the educational environment allowing you to test practical skills and technologically oriented that the faculty and students can be put in place.

Therefore, the effects teaching / operating of collaborative activities supported with the use of the OPEN Sounds platform were considered the beating heart, the soul, the great transformation that can be engendered in the universe from the entrance music education in the school of information technology digital and network.

To probe these various aspects in their possible nuances, the specific question was divided into a number of modes that have permission to photograph the fallout of the use of DT in music education within macro-areas that refer to knowledge / skills type "cognitive" "functional" "personal" and "ethical".

The consistency rate and articulation of the answers given by students and teachers was such as to ensure ample scope for analysis and interpretation of data collected.

The responses given percent sequence, with reference to the scale of liking 1-5 proposal, present a picture remarkably consistent and confirms the potential of the platform and creative experiences produced inside to support the full range of educational and training objectives of OPEN Sounds.

The data obtained indicate (Table 5.14) as the OPEN SOUNDS environment and tools contributed to the development of knowledge and skills such as cognitive and functional “new concepts, terms and competencies, related to music, information and communication” (58, 5% *much* and 15% a *very much*), “manage projects and develop my problem solving skills” (55.8% and 29.9%), “understand more about social networking” (58.5% and 20.4%), “autonomous learner, in charge of my own learning process” (55.8% and 29.9%), “understand more about tools that foster creating and sharing work using digital technologies” (47.6% and 29.0%).

The students and teachers involved in the Open Sounds activities declare, moreover, that it has acquired knowledge and personal skills such as the ability to "learn with the other" (53.1% and 27.9%) the ability to communicate, cooperate and negotiate (52.1% and 30.1%) and the ability to Auto-analyze himself, self-evaluation (42.1% and 30.3%).

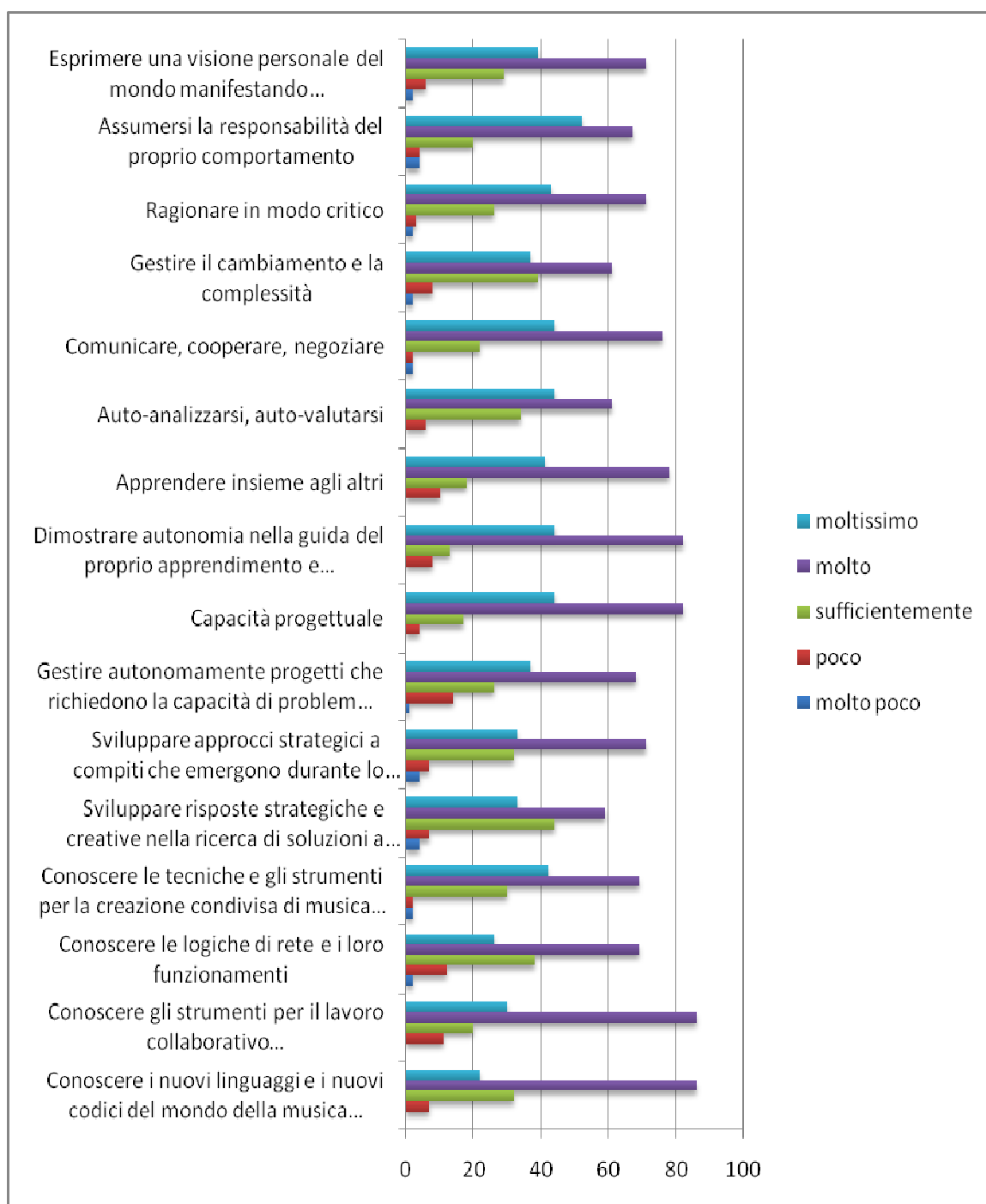
Next, we find, again, a clear indication of capacity that refer to knowledge / skills "ethical" such as the ability to “acquire a greater sense of the world around me and a greater respect about other people's diversities” (48.3% and 26.5%), to “gain a sense of greater responsibility for my own behavior” (45.6% and 35.4%), and the ability to “enhance my critical thinking” (49.9% and 29.7%).

	Very little	little	average	much	very much	Average very much
It helped me learn new concepts, terms and competencies, related to music, information and communication	0,0%	4,8%	21,8%	58,5%	15,0%	<b>31,76%</b>
It helped me understand more about social networking	0,0%	7,5%	13,6%	58,5%	20,4%	<b>30,83%</b>
It helped me understand more about tools that foster creating and sharing work using digital technologies	1,4%	8,2%	25,9%	46,9%	17,7%	<b>30,16%</b>
It helped me understand how to understand and solve problems and tasks	1,4%	1,4%	20,7%	47,6%	29,0%	<b>32,43%</b>
It helped me further develop skills for tackling particular tasks strategically	2,7%	4,8%	29,9%	40,1%	22,4%	<b>30,7%</b>
It helped me manage projects and develop my problem solving skills	2,7%	4,8%	21,8%	48,3%	22,4%	<b>30,83%</b>
It helped me to work effectively towards the successful completion of a project	0,7%	9,6%	17,8%	46,6%	25,3%	<b>29,9%</b>
It helped me develop as an autonomous learner, in charge of my own learning process	0,0%	2,7%	11,6%	55,8%	29,9%	<b>32,43%</b>
It helped me learn together with other people	0,0%	5,4%	8,8%	55,8%	29,9%	<b>31,5%</b>
It helped me develop my self-assessment and self-evaluation skills	0,0%	6,8%	12,2%	53,1%	27,9%	<b>31,06%</b>

It helped me develop my communication, collaboration and co-operation skills	0,0%	4,1%	23,4%	42,1%	30,3%	<b>31,93%</b>
It helped me develop my skills in managing complex tasks	1,4%	1,4%	15,1%	52,1%	30,1%	<b>32.43%</b>
It helped me enhance my critical thinking	1,4%	5,4%	26,5%	41,5%	25,2%	<b>31.06%</b>
It helped me gain a sense of greater responsibility for my own behaviour	1,4%	2,1%	17,9%	49,0%	29,7%	<b>32.2%</b>
It helped me acquire a greater sense of the world around me and a greater respect about other people's diversities	2,7%	2,7%	13,6%	45,6%	35,4%	<b>31.53%</b>
It helped me learn new concepts, terms and competencies, related to music, information and communication	1,4%	4,1%	19,7%	48,3%	26,5%	<b>31.5%</b>

**Table 5.14:** OPEN Sounds contribution to the development of knowledge and skills.





**Figure 5.12:** OPEN Sounds contribution to the development of knowledge and skills.

The choice and the formulation of different ways which make the application for the contribution made by OPEN Sounds development of knowledge and skills, as already mentioned in Chap 4 of this Report, has been made starting from, and in full compliance with, the main objectives of the project, declined in detail in the General Framework of OPEN Sounds.

More specifically in the definition and construction of the Conceptual Framework of OPEN Sounds:

- have identified a number of learning outcomes related to the use of an environment dedicated to the production of music in virtual and transnational teamwork, such as the OPEN SOUNDS platform;

- the learning identified were formulated in form consistent with:
  - the European reference framework of key competences for lifelong learning;
  - the descriptors of achievements and abilities associated with qualifications / academic degrees to the European Qualifications Framework that represent the levels 6, 7 and 8 and the corresponding instruction cycles.

The results described above and for the contribution provided by OPEN Sounds development of knowledge and skills have allowed us to detect the multiple aspects of the OPEN Sounds potential educational and training and showed a high significance consistency between the project objectives and the results obtained.

The consistency rate and articulation of the answers given by students and teachers has been such as to allow outlined a very homogeneous knowledge and skills of "cognitive" "functional" "personal" and "ethical" acquired via the platform OPEN Sounds and the creative experiences produced inside.

The practices of shared musical creation and all the processes put in place by the use of the Open Sounds platform by the users of the Italian network of experimentation, and from the European network in general, have given to the main stakeholders inserted in different educational contexts connected the music (schools, universities, conservatories, professional system), the ability to reflect about:

- the radical transformations that have occurred in the world of music creation and production;
- the access to their size conceptual and operational;
- to the acquisition of useful information to the management of change in creative and educational imposed by digital technologies to musical practice.

The opportunity to identify and analyze the educational impact of the use of shared environments dedicated to creative production has been, also, a valuable opportunity to identify 'quality indicators' in the musical and artistic expression, in the system of public education in Italy and in the European countries partners of the project, that have not yet been sufficiently highlighted.

## 5.4 Survey results achieved through the testing activities in DK

The testing phase of Open Sounds in the Danish network of schools was conducted with a selection of schools with different levels of technological integration within their pedagogical approaches. The aim of the experimentation was to obtain an accurate assessment of the efficiency of the Open Sounds platform among Danish students in regard to **developing social integration, learning and understanding of key competencies in the field of music technology and the social media, and embracing extended collaborative working processes across national borders.**

The school network was composed of 2 main types, both of vocational nature but with different approaches and levels. **The first type was a set of 7 schools regrouped under a regional teaching center in the city of Aarhus.** This group is teaching music at the MGK (Musikalsk Grundkursus) level, which is a public foundation course in music aimed at preparing students to superior conservatory auditions. **The second type was represented by Produktionskolen Aarhus.** Produktionskolen Aarhus is a specific category of public-funded schools where young people who either left the main school system after the 9th grade or finished a technical education but haven't yet found a job. By going to Produktionskolen Aarhus (or other Produktionskoler in Denmark), they are allowed to refine their competencies with professional teachers while getting a salary. The aim of the school is that the new competencies acquired by the students will facilitate their entry into the professional world. Besides music, the school also offers tuition in woodwork, metallurgy, photography, drama, and more.

The Danish network was gathered on three occasions for sessions of two natures. In the first phase, **the educators in charge of conducting the test with their students were met by the Danish partner of the project in order to introduce the platform, define the scope of the testing phase (both theoretically and practically), and agree on the actual phases of the test with a selection of their students.** Considering the time frame where the test phase was conducted, which happened to be at the start of the preparatory work for exam periods in Denmark, the students involved in the test were narrowed down in terms of availability. The two other sessions were organized at the regional MGK center in Aarhus, and in the computer lab of Produktionskolen Aarhus. **All the participating students were gathered and introduced to the Open Sounds platform, its aims, its potential for learning key competences, and finally to the purpose and the process of the testing phase.** Live demonstrations of the workings of the platform were conducted by the Danish partner, and the students were invited to get acquainted with the collaborative tool right after the session, accompanied by their teacher and the Danish project partner.

### 5.4.1 Structure and profile of European testing Networks: School, Conservatives, VET

The two types of schools addressed during the testing, MGK centers and Produktionskoler, were selected because they represent different quite opposite approaches to music teaching, one being more focused on the **performing and theoretical sides of music teaching**, whereas the other one has a **social mission that is embraced in most of the activities conducted in class.**

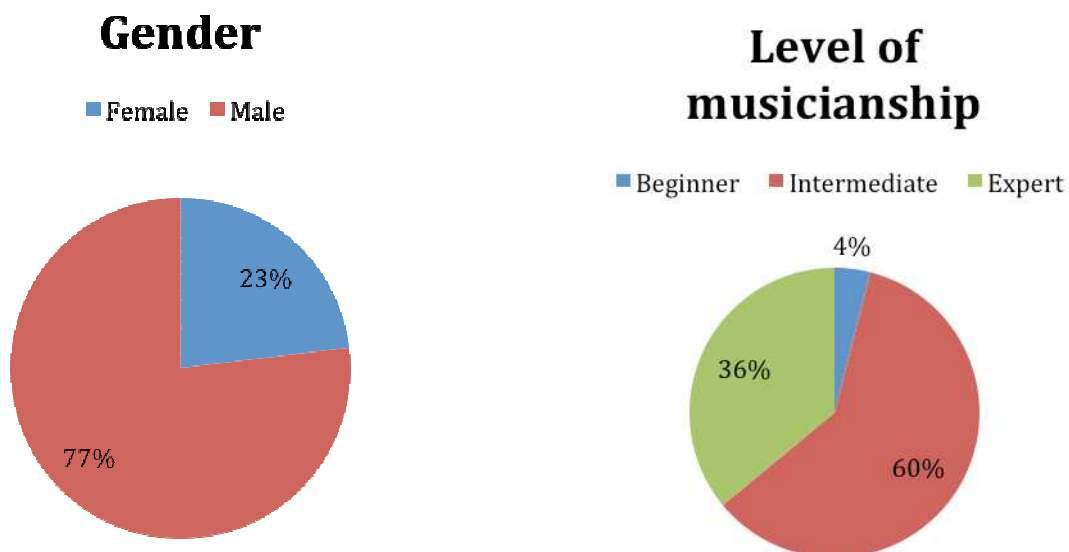
Facts about the Danish test network:

- 7 schools offering the MGK foundation course from the Midtjylland region participated, for a total of 210 students regrouped under one regional center at Aarhus Musikskole in Aarhus.
- Produktionskolen Aarhus, of which 100% of the students of the music line were involved in the testing phase of Open Sounds.
- Out of the potential 270 students, 50 students were selected and/or volunteered to participate in the test phase of the Open Sounds Platform according to the criteria and restrictions described earlier, which is a 18.5% participation rate.
- 4 educators were involved in the testing phase, 2 of which actively monitored the progress of the students during the testing phase.

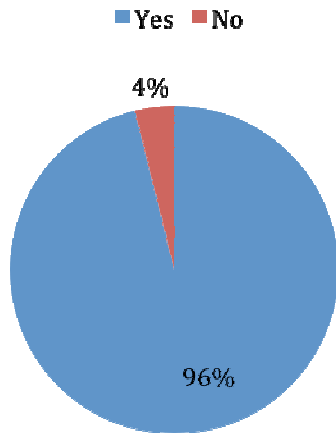
## 5.4.2 Knowledge and expectations

### A) Student profiles

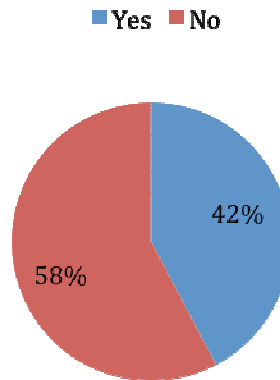
As a result of the survey analysis, we can draw some conclusions on the profile of the students who participated in the test phase. First of all, it appears that the large majority were boys (77%) with an intermediate to advanced level of musicianship (96%). 96% of them use social networks such as Facebook or Twitter at home, but only 42% answered that these same tools were also used at the school for pedagogical activities.



## Using social networks at home



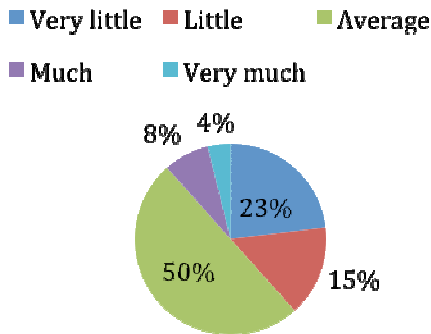
## Using social networks for school activities



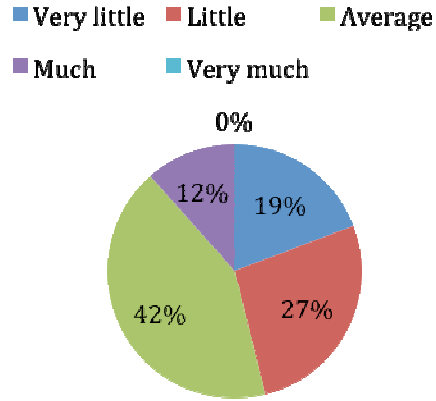
### B) Expectations

The expectations of the students in regard to the goals they could achieve by using the Open Sounds platform are mainly **centered on the “average” answer** (see charts below). It appears that the expectations to learn new skills in music technology and social media were slightly positive, but that in general, the test group was mostly indecisive on what to expect from the platform. There are a few striking exceptions though. A vast majority of the students had high expectations for creating music together with others they didn't know. Furthermore, the large majority was also hoping to share ideas with people having the same background as them. We can therefore easily draw a conclusion that the Danish test group was in its majority not expecting to acquire new learning processes, skills with a professionalizing aim or technological abilities, but rather **hoping to use a tool that would enable them to communicate with others sharing the same interests**. This can be either explained by the informal nature of the tool, which deals directly with creative processes, or with the fact that Danish schools have already put a lot of efforts into integrating technological tools into music education.

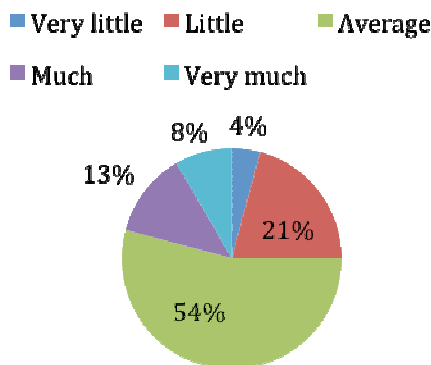
**Hoping to acquire knowledge and skills in the field of music production, using technology**



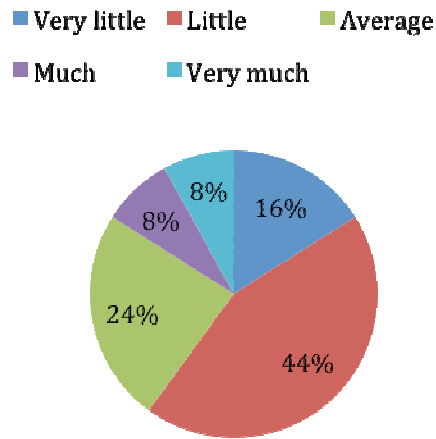
**Hoping to acquire new skills in web 2.0 related technologies and social media, using a collaborative environment**



**Hoping to be able to collaborate with people from other countries by participating in collaborative music making projects**

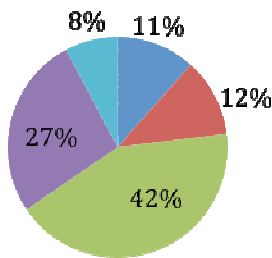


**Hoping to have a new and exciting learning/training experience**



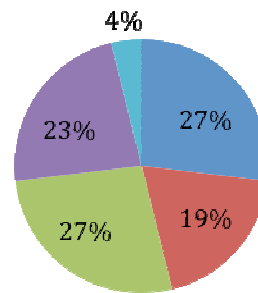
**Hoping to exchange experiences and encounter sharing new ideas with people that have similar interests and backgrounds**

Very little Little Average Much Very much



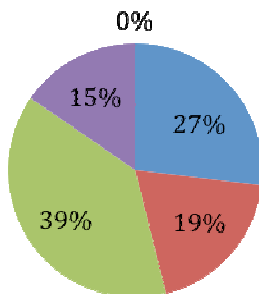
**Hoping to be able to acquire knowledge and skills that will help expand my future employment perspectives**

Very little Little Average Much Very much



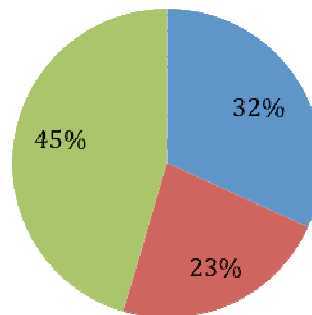
**Hoping to be able to strengthen my social skills and promote citizenship, by working in a group**

Very little Little Average Much Very much



**Other (please specify)**

Get inspired Share with others Don't want to use the platform

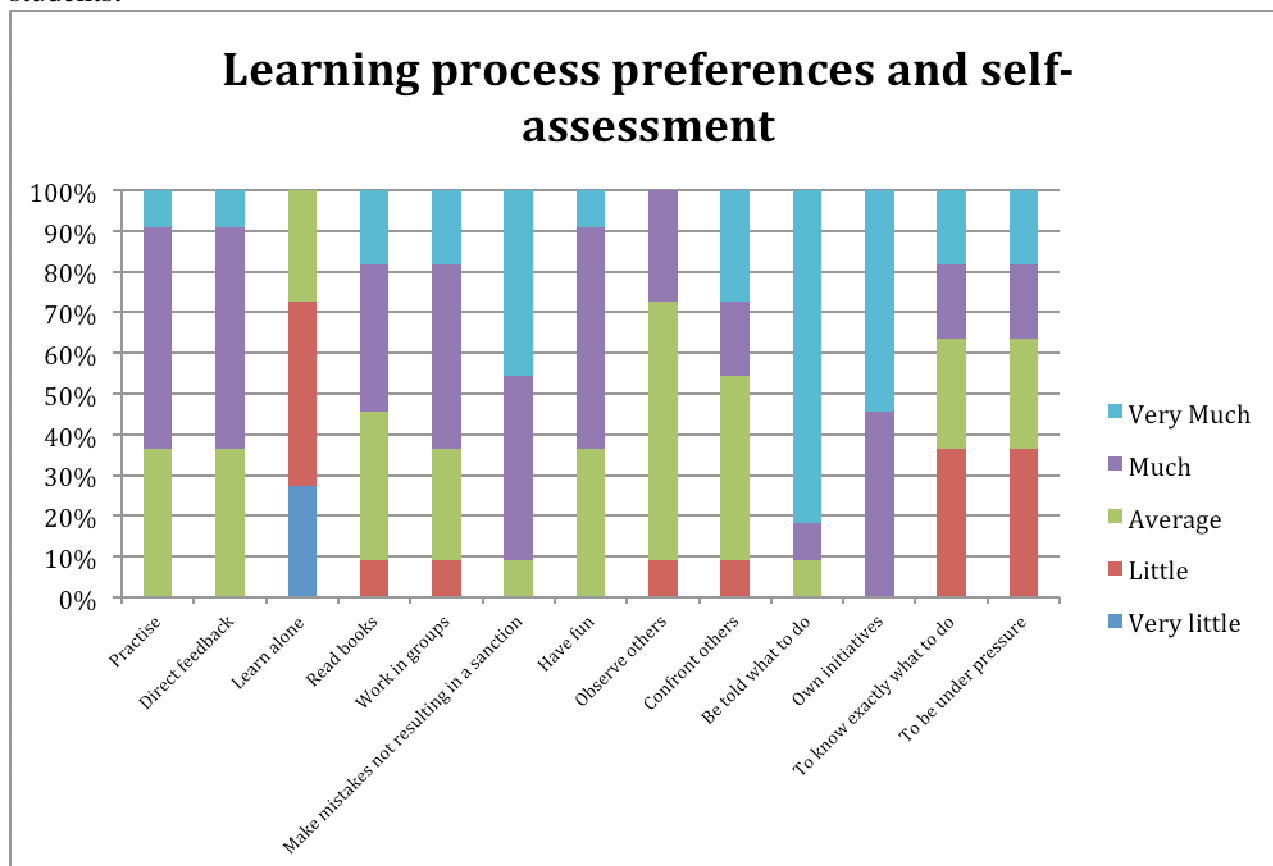


**5.4.3 Learning process and achievements**

**A) Learning process preferences and self-assessment**

According to the exit survey of the test phase, it appears that the Danish test group is strongly agreeing on a few points in regard to their own assessment of the efficiency of the different learning processes. First of all, all of the students replied that learning on their “own initiative” was a much or very much efficient learning process. This contrasts somewhat with the second most positively answered suggestion, which was “to be told what to do”. Other

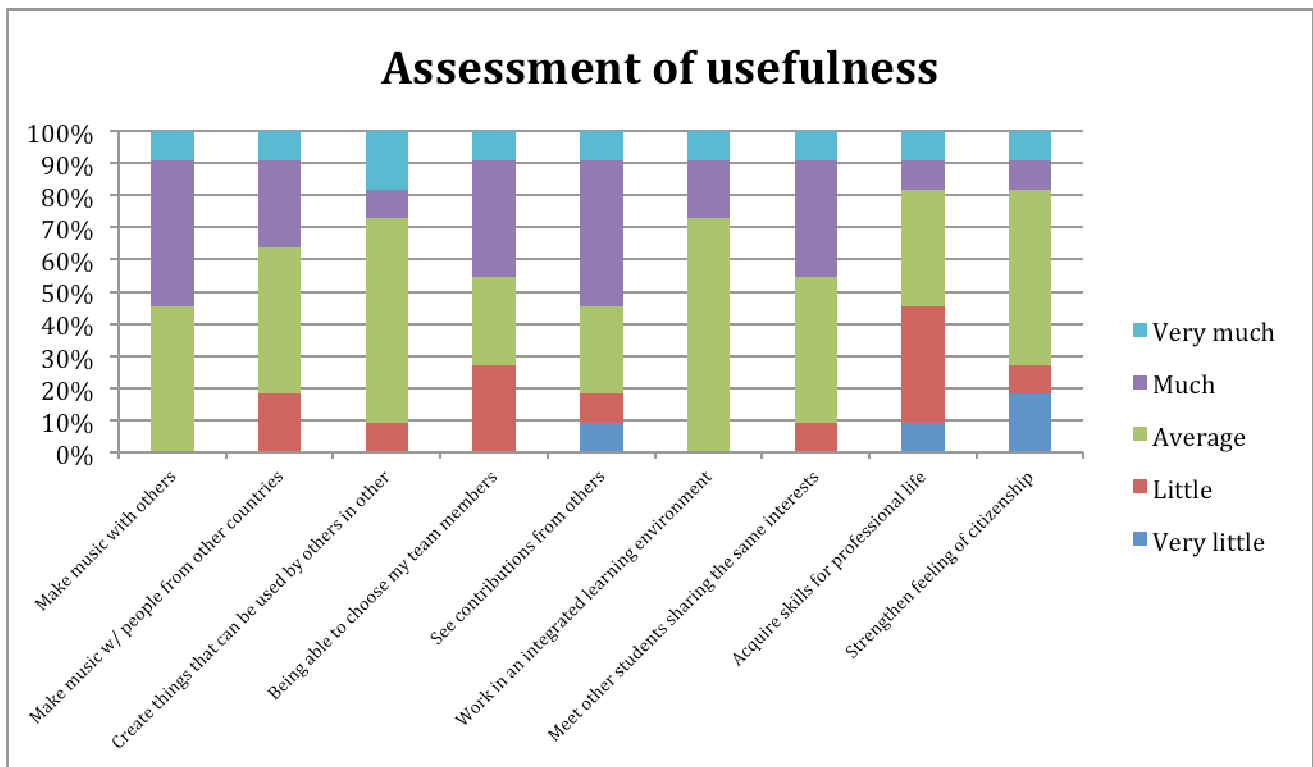
learning processes values by the Danish students are “practice”, “obtaining direct feedback”, “make mistakes not resulting in a sanction” and “working in groups”, which all involve a strong socializing aspect the tuition. When considering that the least popular entry was “to learn alone”, we can draw a few conclusions in order to set a general profile on the Danish test group. The Danish students who tested Open Sounds are **attracted by the social aspect of learning**, both with their fellow students and with their teacher. **The learning process is expected to involve direct contact and dialogue, as well as guidance**, as opposed to more unilateral learning methods where the educator isn’t expecting active participation from the students.



## B) Assessment of the usefulness of Open Sounds

When reviewing the results of the exit survey about the Danish students’ own view of the usefulness of the various aspects of the Open Sounds platform, it appears clearly that **the main well-received aspects are linked with the creative and collaborative processes**. Creating music, sharing it with others, meet others sharing the same interests and see contributions made by other people are the three most valued aspects of Open Sounds in terms of usefulness, according to the Danish test group. This confirms the conclusions we drew earlier from the learning process preferences, where we concluded that the Danish test group was mostly inclined to learn in a creative, socializing and communicative environment. The underlying agenda of Open Sounds, which revolve around the strengthening of the feeling of citizenship and the teaching of key competencies for active life was not seen as useful as the creative and social aspects by the students, but the correlation between these goals, the nature of the platform and the long term effects it may have on the students is likely to be difficult to foresee by the target group itself.





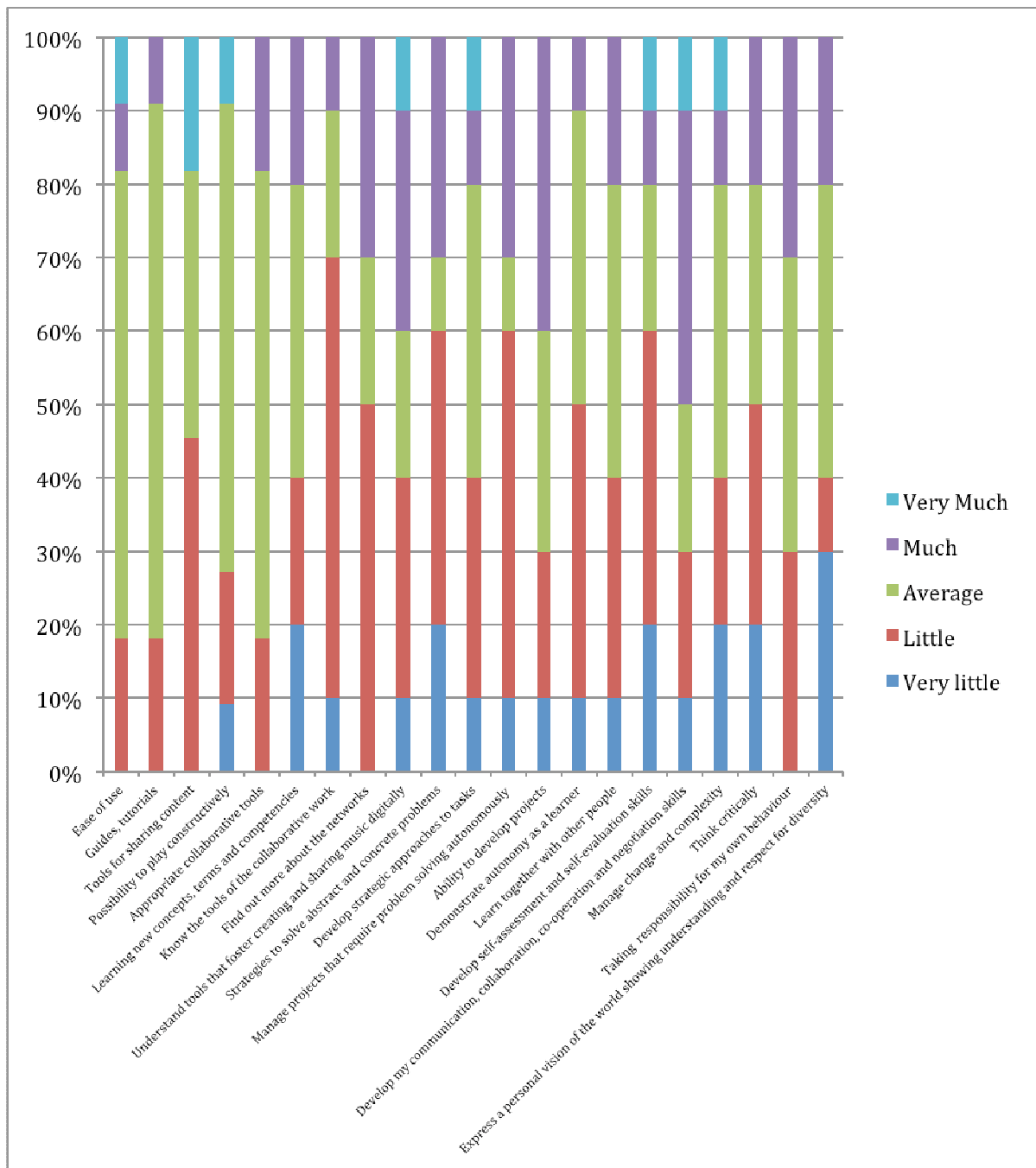
### C) Assessment of the tools of the Open Sounds platform

The assessment of the usability aspects of the Open Sounds platform revealed several points which characterize the experience of the Danish test group when correlated with the data from the other parts of the test survey, i.e. their background and expectations. **Most of the answers regarding the technical aspects of the platform (ease of use, tools to share content) were in the “Average” area**, with an equal number (around 20%) of satisfied and unsatisfied students. **The most widely positive answers were centered on the social and communicative aspects of Open Sounds**, including the “ability to develop projects”, to “develop communication, collaboration, co-operation and negotiation skills”, “manage change and complexity”, and “taking responsibility for their own behavior”. All these aspects of Open Sounds, which are the very innovative core and driving force of the project, were those most highly regarded by the students.

One of the few aspects that the Danish test group didn’t regard as well tackled by the platform of the Open Sounds project was the ease to “know the tools of the collaborative work”, with 70% of the students answering negatively in their usability assessment, as well as the “strategies to solve abstract and concrete problems”. This might point out to an issue with the methodological resources available, or it could perhaps be due to missing guidance while using the platform, even though both were available on the platform at the time of the test. One reason for this might be **the tendency of the Danish test students to learn in a proactive way instead of doing preparatory research to establish working strategies in advance**. The result of the assessment of these two last points could arguably have been different if the teachers in charge of the test groups had had the possibility to use the platform extensively before introducing it to the students, and familiarize themselves to a larger extent with the various topics at stake both technologically, socially and methodologically.

On a final note, a few students answered the last open question asking them to comment freely on their experience during the test phase, and **several asked for more social**

**functionalities**, such as a chat feature on the platform. Others have acknowledged the innovative aspects of Open Sounds but mostly as a social tool, as they could not relate to collaborating virtually with others, i.e. over the internet, as opposed to sitting with them in the same room and exercising direct social and musical interaction. A few students expressed worries about releasing their music under a Creative Commons license, which would disqualify the work for commercial release. However, these concerns in regards to copyrights were much higher before the Danish partner introduced the students to the pedagogical gains attained by using the Open Sounds platform, which was recognized as more valuable than a potential commercial licensing of short-length musical recordings.



## 5.5 Survey results achieved through the testing activities in UK

### 5.5.1 Structure and profile of European testing Networks: Schools, Conservatoires, VET

The OpenSoundS testing network in the United Kingdom, excitingly, spanned outside the United Kingdom as well. This is due to the fact that a specialist team in Spain, working at post compulsory as well as undergraduate level music education became introduced to the OpenSoundS project and demonstrated profound enthusiasm in actively participating in the project, as part of the testing network. The OpenSoundS team responded to this passionate will to contribute very positively, and allocated spare time and effort in order to accommodate this collaboration to the maximum extent possible. The collaborative side of the OpenSoundS platform was also translated in Spanish, and the colleagues from Spain were able to collaborate with students from the United Kingdom, Italy, and Denmark, thus celebrating the transnational ethos of this exciting initiative. Another volunteer to the OpenSoundS network that showed great commitment and enthusiasm in becoming part of the testing phase, has been a leading International School in the heart of London, providing both primary and secondary education, in two dedicated sites, and hosting children from the world around. Today, it is one of very few schools in the UK that offers the full range of International Baccalaureate programmes (Primary Years, Middle Years and Diploma) for students aged 3 - 18 years. There are currently 250 students studying at this international school across the Primary campus located on the edge of Regent's Park and the Secondary campus near Hyde Park. The School community is truly diverse with over 45 different nationalities represented and this adds to the richness of our student's experience at the school. Due to the wonderful diversity of the student demographic in this school, the OpensoundS team responded very positively and facilitated weekly collaborative music making group sessions with primary, secondary and post compulsory students, using a highly experienced post doctoral researcher and educator as session facilitator.

Besides the two exciting 'add-ons', the formally organised testing network in the UK comprised nearly 600 students across all possible learning contexts that could be related to music making. The general ethos for the selection of the network schools has been that: the team wanted to ensure that access to this exciting network was

- democratic
- inclusive
- representative
- polyphonic
- able to provide empirical insights from groups throughout the learning lifespan
- not necessarily focused on music technology, but every possible music making

Therefore, the UK OpenSoundS testing network comprised:

- High school
- Mixed Compulsory and Post Compulsory Arts College
- Post compulsory college
- Primary school
- Secondary specialist music school
- Specialist music teacher training institution

- Undergraduate music programme

Given the tight schedule for the testing phase, and the student workload and curricular commitments during the assessment phase, the response rate to the entry and exit surveys was quite high at nearly 42% (approximately 250 responses) for the entry questionnaire, and 32% (approximately 192 responses) for the exit questionnaire.

The spread across the different educational groups has been:

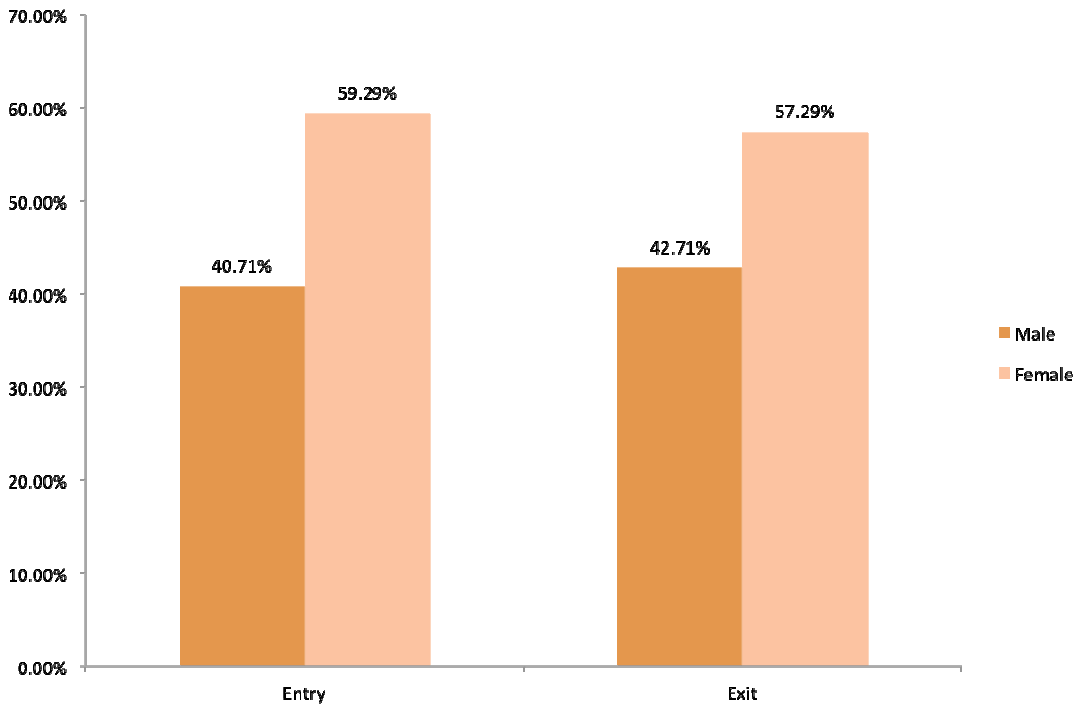
### Entry questionnaire

institution type	responses (N)	responses (% of total)
high school	7	2.8%
Mixed Compulsory and Post Compulsory Arts College	70	27.7%
post compulsory college	82	32.4%
primary school	24	9.5%
secondary specialist music school	17	6.7%
specialist music teacher training	40	15.8%
undergraduate	13	5.1%
<b>Grand Total</b>	<b>253</b>	<b>100.0%</b>

### Exit Questionnaire

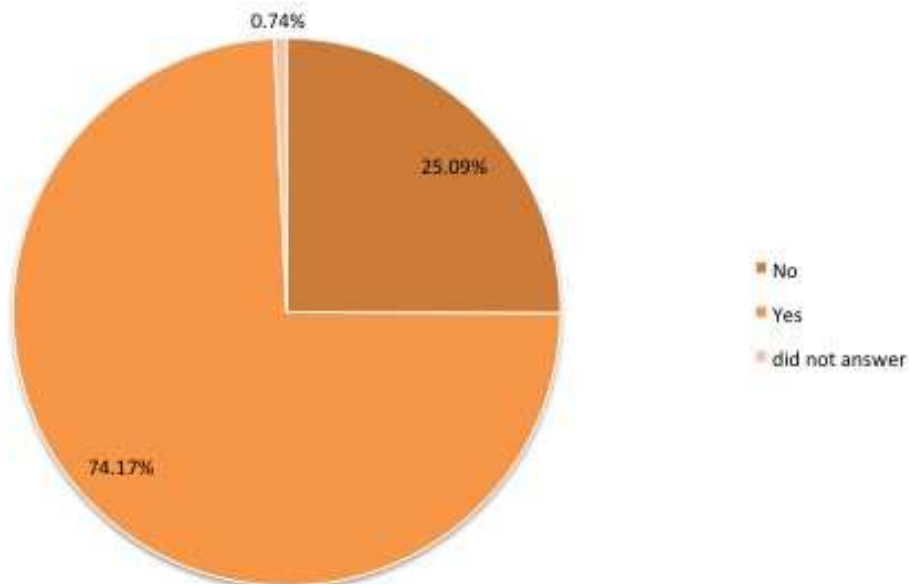
institution type	responses (N)	responses (% of total)
high school		0.0%
Mixed Compulsory and Post Compulsory Arts College	63	32.8%
post compulsory college	58	30.2%
primary school	19	9.9%
secondary specialist music school	15	7.8%
specialist music teacher training	27	14.1%
undergraduate	10	5.2%
<b>Grand Total</b>	<b>192</b>	<b>100.0%</b>

The respondent group was fairly evenly divided regarding sex/gender, with approximately 40% of the entry questionnaire respondents being male, and 60% being female accordingly, and, similarly, nearly 43% of the exit questionnaire respondents being male, compared to female respondents, nearly at 57%.



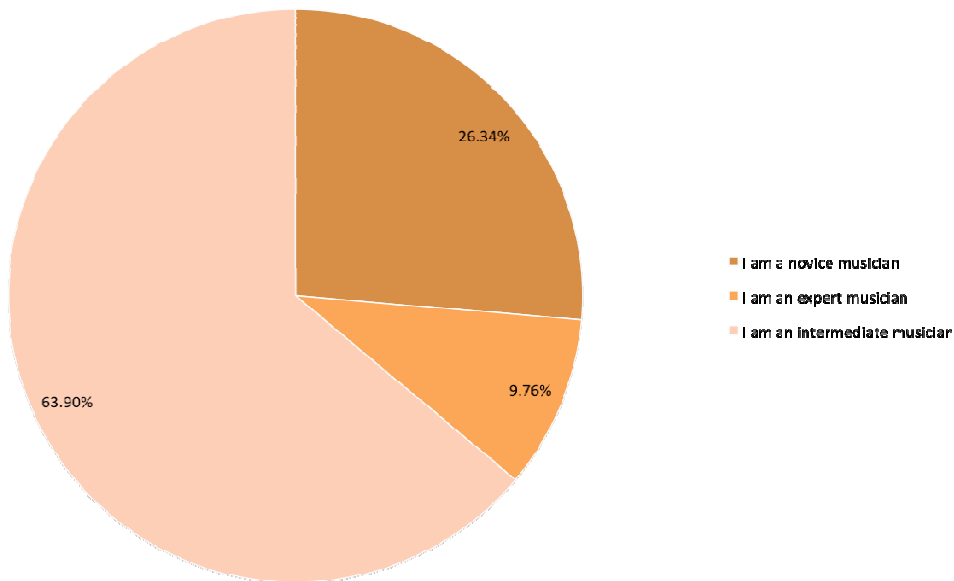
### 5.5.2 Knowledge and expectations

Nearly three out of four respondents (74%) reported that they played a musical instrument. A negligible percentage of the respondents did not provide information about whether they played a musical instrument (0.74%), with approximately 25% of the population having reported that they did not play any musical instrument.

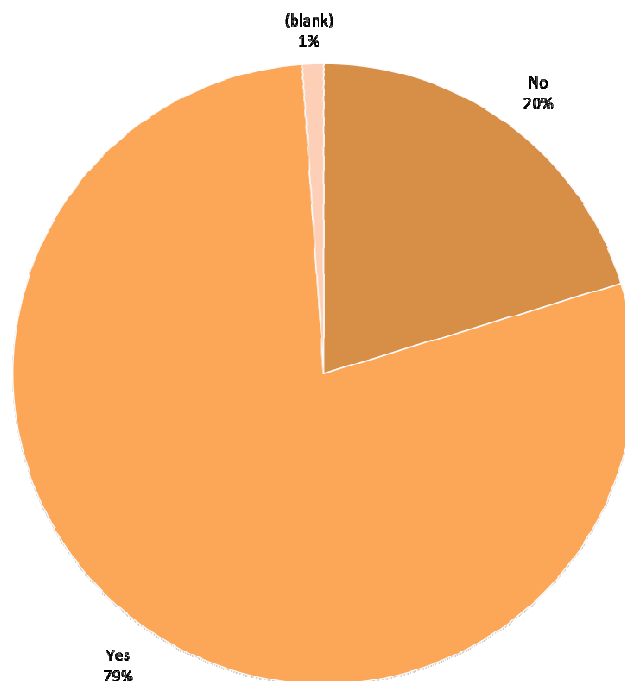


Of those respondents that reported to play a musical instrument and provided further information about their level of expertise, the vast majority (approximately 63%) positioned themselves as

intermediate musicians, with nearly 26% labeling themselves as novice musicians, and only one in ten (approximately 10%) stating that they were expert musicians.

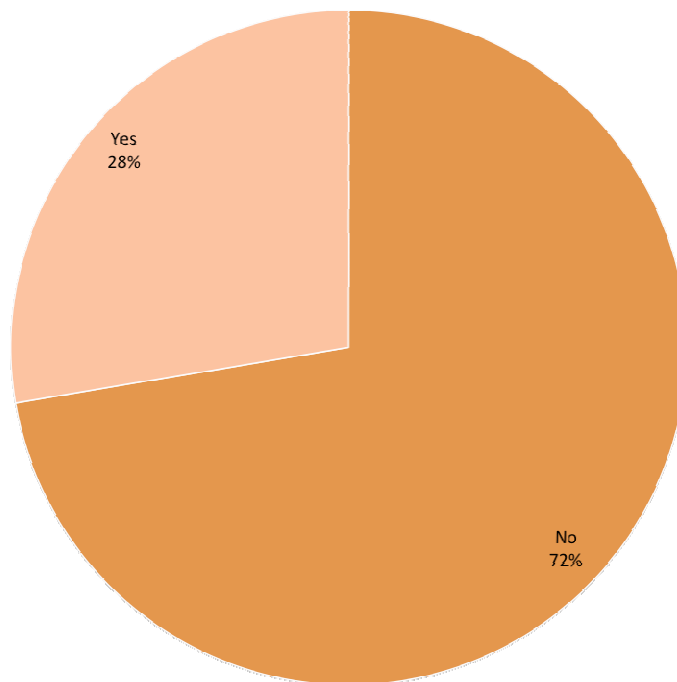


The vast majority of student respondents (79%) reported to be using social networking tools, with only one in five respondents claiming not to use similar technologies (e.g. facebook, twitter, myspace, etc.). Only 1.11% of the respondents did not provide relative information.



Of those respondents that reported to be social networking tool users, more than seven in ten (72.39%) reported that they don't use those when in school. An interesting phenomenon is that the distribution of users versus non users of social networking tools within school was not school-specific, as someone would probably expect (i.e. the school running a policy against the use of such tools, or certain tools being blocked by school firewalls). This suggests that a

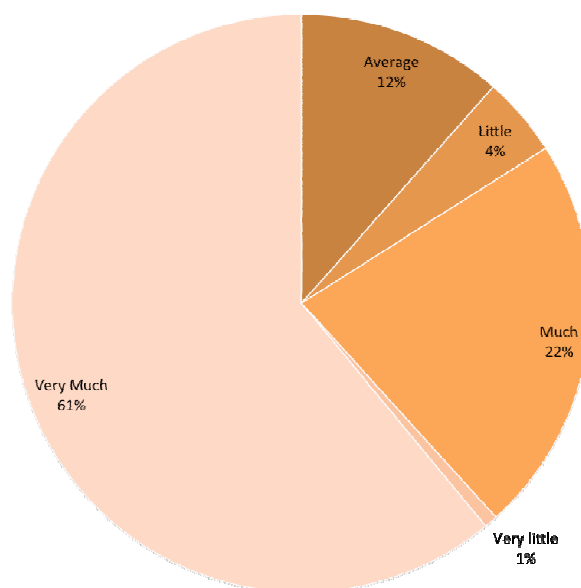
large percentage of the users might be interacting with these tools via their mobile phones and web enabled mobile devices (e.g. iPads and other tablets) outside general school guidelines.



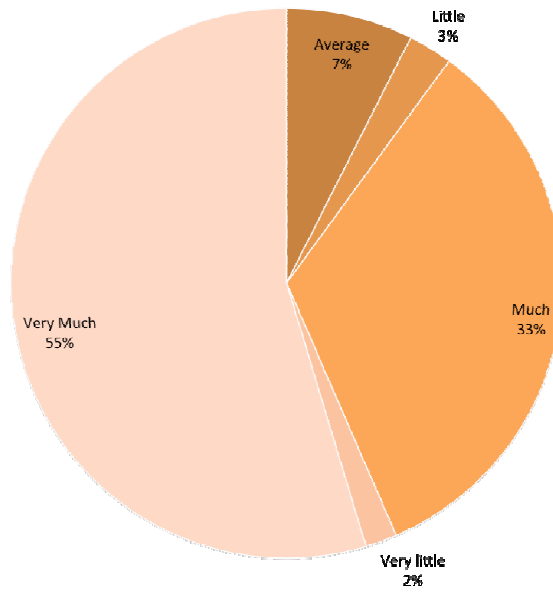
The respondents were asked to provide ratings in a set of statements, mainly focusing on their aims and aspirations in becoming engaged with the OpenSoundS collaborative platform testing.

The overall response was overwhelmingly positive, for all statements that the respondents were invited to rate. More specifically:

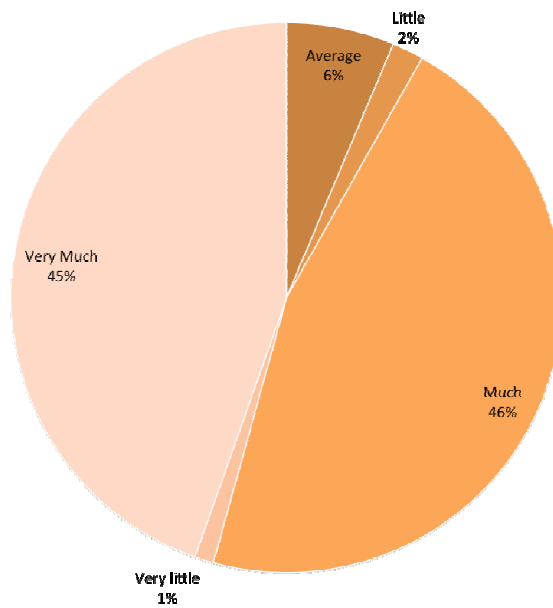
**acquire knowledge and skills in the field of music production, using technology**



**acquire new skills in web 2.0 related technologies and social media, using a collaborative environment**

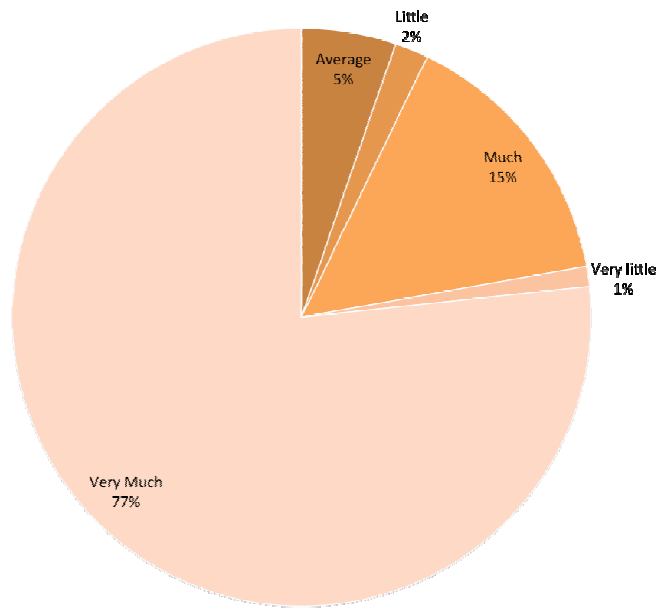


**be able to collaborate with people from other countries by participating in collaborative music making projects**

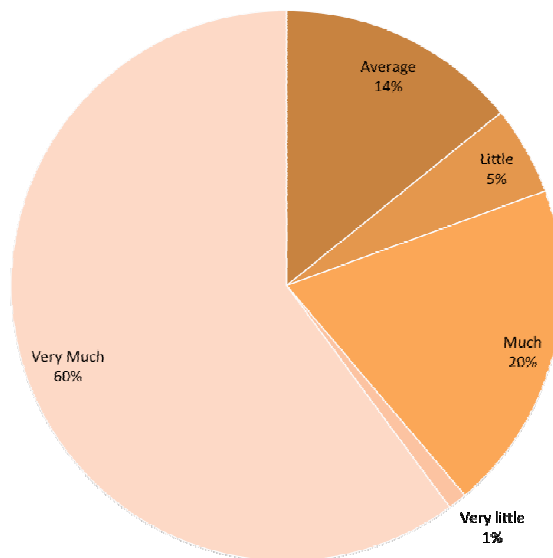




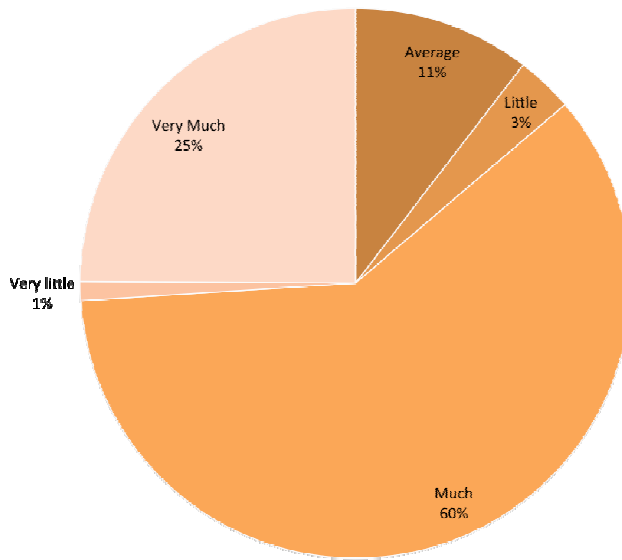
**have a new and exciting learning/training experience**



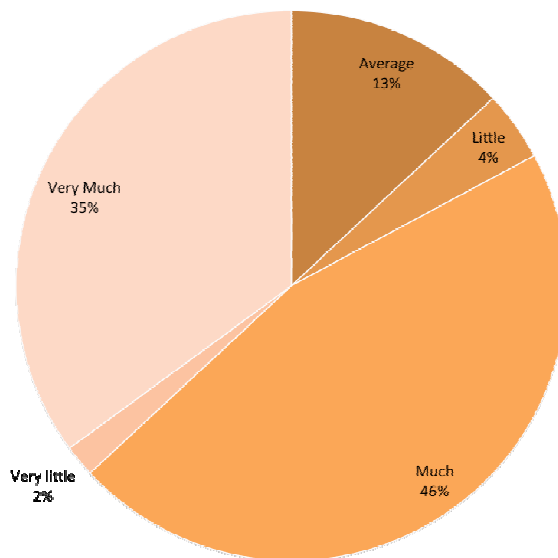
**exchange experiences and encounter sharing new ideas with people that have similar interests and backgrounds**



**be able to acquire knowledge and skills that will help expand my future employment perspectives**



**be able to strengthen my social skills and promote citizenship, by working in a group**



A summary table of all responses to the available statements demonstrates the remarkable level of positivity in participating in the OpenSoundS network:

	average rating
acquire knowledge and skills in the field of music production, using technology	4.4
acquire new skills in web 2.0 related technologies and social media, using a collaborative environment	4.4
be able to collaborate with people from other countries by participating in collaborative music making projects	4.3
have a new and exciting learning/training experience	4.6
exchange experiences and encounter sharing new ideas with people that have similar interests and backgrounds	4.3
be able to acquire knowledge and skills that will help expand my future employment perspectives	4.0
be able to strengthen my social skills and promote citizenship, by working in a group	4.1

### 5.5.3 Learning process and achievements

All participants were invited to respond to an 'exit' questionnaire. This was a survey instrument available online, in which participants were able to rate a larger (compared to the entrance survey) set of statements that aimed to capture participants' experiences, sense of progress and achievement using the OpenSoundS testing platform, and generally report their opinions regarding the overall experience.

The results demonstrated that almost all participants were extremely positive about their experiences. The response was overwhelmingly, again, positive.

In greater detail, the online survey instrument was structured under four key themes:

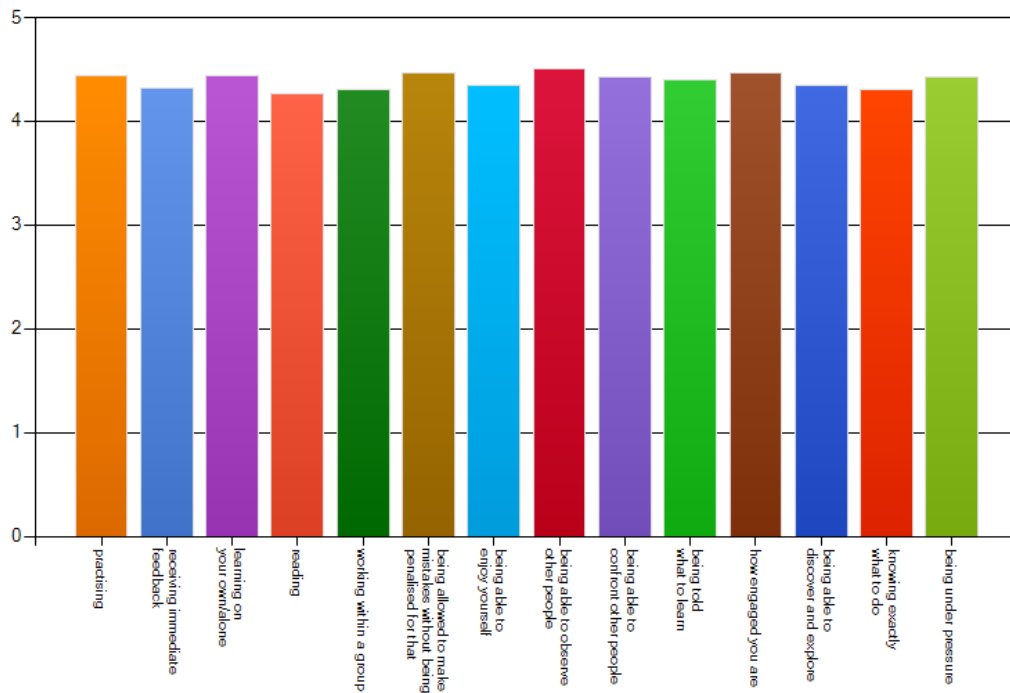
#### **1. Participants' beliefs about different learning ways/styles and their opinions about their importance and/or effectiveness.**

These were:

- practising
- receiving immediate feedback
- learning on your own/alone
- reading
- working within a group
- being allowed to make mistakes without being penalised for that
- being able to enjoy yourself
- being able to observe other people
- being able to confront other people
- being told what to learn
- how engaged you are
- being able to discover and explore
- knowing exactly what to do
- being under pressure

The responses highlighted that all suggested styles were perceived to be of very high importance to the participants, as presented in the following chart.

Different ways of learning are listed below. In your opinion, which are more useful for your successful learning?



No statistical significance was observed regarding the perceived dominance of one suggested learning style versus another.

The actual responses count is offered within the following table:

Different ways of learning are listed below. In your opinion, which are more useful for your successful learning? (please rate all statements)

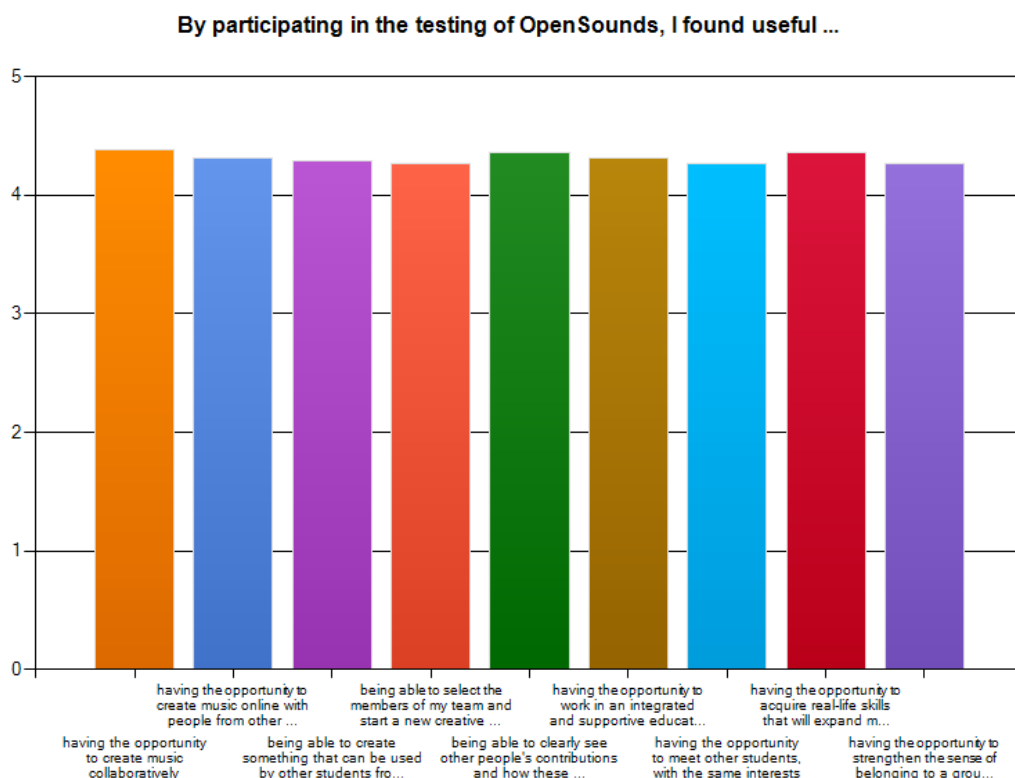
Answer Options	Very little	Little	Average	Much	Very Much	Rating Average	Response Count
practising	0	0	36	39	122	4.44	197
receiving immediate feedback	0	0	46	41	110	4.32	197
learning on your own/alone	0	0	34	42	120	4.44	196
reading	1	2	42	49	103	4.27	197
working within a group	0	0	48	39	110	4.31	197
being allowed to make mistakes without being penalised for that	0	1	32	38	126	4.47	197
being able to enjoy yourself	0	0	43	44	109	4.34	196
being able to observe other people	0	0	29	38	130	4.51	197
being able to confront other people	0	0	38	37	122	4.43	197
being told what to learn	0	0	47	25	125	4.40	197
how engaged you are	0	0	32	42	123	4.46	197
being able to discover and explore	0	0	44	41	112	4.35	197
knowing exactly what to do	0	2	41	50	104	4.30	197
being under pressure	0	0	40	33	124	4.43	197

## 2. Aspects of participating in the OpenSoundS collaborative project that the participants found particularly useful

Participants were invited to rate a set of statements, highlighting the extent to which they found particular aspects of participating in OpenSoundS useful or not. The various aspects were:

- having the opportunity to create music collaboratively
- having the opportunity to create music online with people from other countries
- being able to create something that can be used by other students from different countries and backgrounds
- being able to select the members of my team and start a new creative idea with them
- being able to clearly see other people's contributions and how these had been used in the various projects
- having the opportunity to work in an integrated and supportive educational environment that provides access to a plethora of tutorials, guides and databases
- having the opportunity to meet other students, with the same interests
- having the opportunity to acquire real-life skills that will expand my future employment opportunities
- having the opportunity to strengthen the sense of belonging to a group and citizenship

The overall responses/ratings show remarkable positivity towards the numerous aspects of the collaborative project. This is clear in the following figure:



None of the rated statements received an average response rating smaller than 4.27, with the first statement (having an opportunity to create music collaboratively) being the highest rated statement, with a rating average of 4.38.

A more detailed presentation of the responses is offered in the following table:

By participating in the testing of OpenSounds, I found useful ...						
Answer Options	Very little	Little	Average	Much	Very Much	Rating Average
having the opportunity to create music collaboratively	0	1	29	61	106	4.38
having the opportunity to create music online with people from other countries	1	0	25	81	89	4.31
being able to create something that can be used by other students from different countries and backgrounds	0	0	35	70	92	4.29
being able to select the members of my team and start a new creative idea with them	0	4	34	64	95	4.27
being able to clearly see other people's contributions and how these had been used in the various projects	0	0	30	67	100	4.36
having the opportunity to work in an integrated and supportive educational environment that provides access to a plethora of tutorials, guides and databases	1	2	31	64	99	4.31
having the opportunity to meet other students, with the same interests	0	0	37	69	91	4.27
having the opportunity to acquire real-life skills that will expand my future employment opportunities	0	1	24	75	97	4.36
having the opportunity to strengthen the sense of belonging to a group and citizenship	0	0	41	62	94	4.27

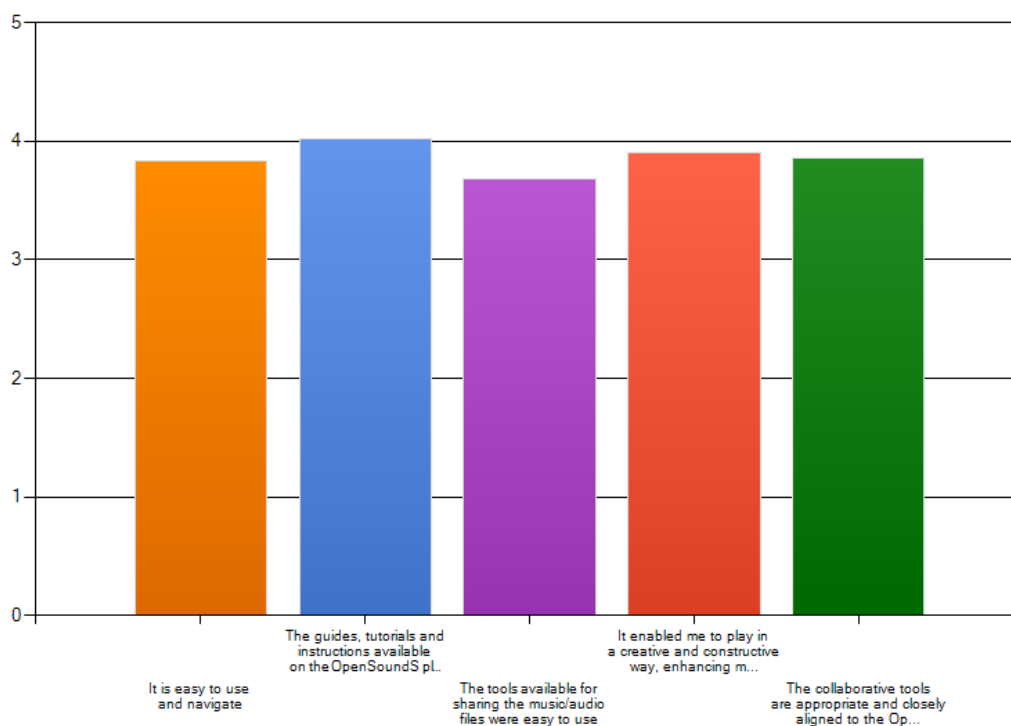
### 3. Respondents' perceptions regarding the usability of the OpenSoundS platform

All participants were asked to provide their opinions regarding the usability of the OpenSoundS platform, by rating a set of five statements. These were:

- It is easy to use and navigate
- The guides, tutorials and instructions available on the OpenSoundS platform were clear and easy to follow
- The tools available for sharing the music/audio files were easy to use
- It enabled me to play in a creative and constructive way, enhancing my formal and informal skills
- The collaborative tools are appropriate and closely aligned to the OpenSoundS project objectives.

Responses were overall very positive, with no statistically significant differences. Regardless, the statement receiving the highest rating was the second one (i.e. about guides, tutorials and instructions) receiving a rating average of 4.02 out of a theoretical maximum value of 5.

With reference to the usability of the OpenSounds platform.



A more detailed presentation of the responses regarding usability is offered in the following table:

With reference to the usability of the OpenSounds platform.						
Answer Options	Very little	Little	Average	Much	Very Much	Rating Average
It is easy to use and navigate	22	19	22	38	95	3.84
The guides, tutorials and instructions available on the OpenSoundS platform where clear and easy to follow	13	17	26	38	102	4.02
The tools available for sharing the music/audio files were easy to use	26	24	23	36	87	3.68
It enabled me to play in a creative and constructive way, enhancing my formal and informal skills	23	14	18	45	97	3.91
The collaborative tools are appropriate and closely aligned to the OpenSoundS project objectives.	14	26	29	32	96	3.86

#### 4. Users perceptions regarding the extent to which the tools of the OPEN SoundS platform played a role in the development of their knowledge and skills

Finally, all participants were invited to provide ratings for the extent of their agreement or disagreement with a set of 21 statements regarding the role of OpenSoundS in the development of their knowledge and skills.

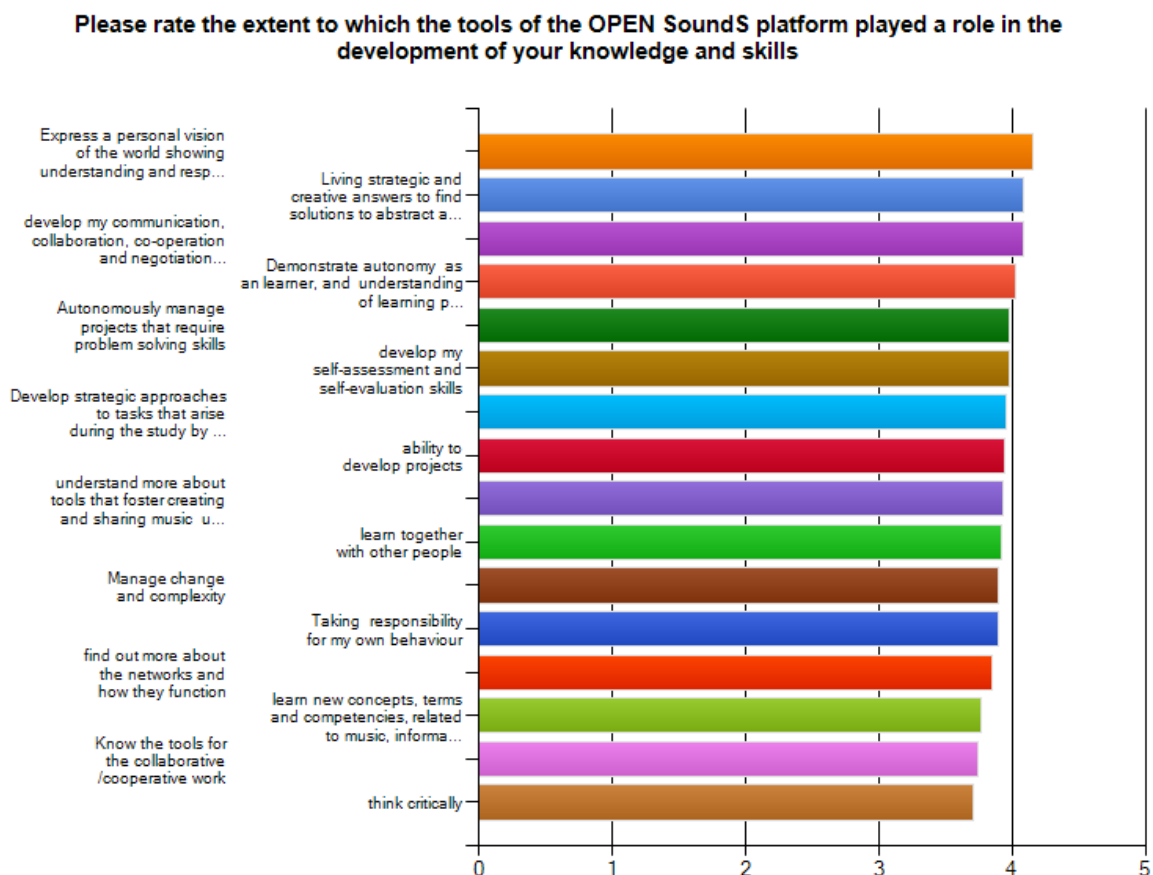
The statements were the following:

- Learn new concepts, terms and competencies, related to music, information and communication world
- Know the tools for the collaborative /cooperative work

- find out more about the networks and how they function
- understand more about tools that foster creating and sharing music using digital technologies
- Living strategic and creative answers to find solutions to abstract and concrete problems
- Develop strategic approaches to tasks that arise during the study by applying specialized knowledge
- Autonomously manage projects that require problem solving skills
- ability to develop projects
- Demonstrate autonomy as an learner, and understanding of learning processes
- learn together with other people
- develop my self-assessment and self-evaluation skills
- develop my communication, collaboration, co-operation and negotiation skills
- Manage change and complexity
- Think critically
- Taking responsibility for my own behaviour
- Express a personal vision of the world showing understanding and respect for diversity

The vast majority of the respondents reported that their engagement in the testing of the OpenSoundS collaborative platform turned out to be highly effective as well as a rewarding experience.

A summative graphical representation of the positive response is offered with the next figure:



The responses in detail are presented in the following data table:



Please rate the extent to which the tools of the OPEN SoundS platform played a role in the development of your knowledge and skills						
Answer Options	Very little	Little	Average	Much	Very Much	Rating Average
learn new concepts, terms and competencies, related to music, information and communication world	0	1	79	78	37	3.77
Know the tools for the collaborative /cooperative work	10	7	45	94	39	3.74
find out more about the networks and how they function	5	20	46	53	71	3.85
understand more about tools that foster creating and sharing music using digital technologies	3	10	54	59	69	3.93
Living strategic and creative answers to find solutions to abstract and concrete problems	3	11	34	65	82	4.09
Develop strategic approaches to tasks that arise during the study by applying specialized knowledge	3	12	42	70	68	3.96
Autonomously manage projects that require problem solving skills	4	14	42	57	78	3.98
ability to develop projects	5	11	44	65	70	3.94
Demonstrate autonomy as an learner, and understanding of learning processes	2	12	47	54	80	4.02
learn together with other people	1	14	49	65	65	3.92
develop my self-assessment and self-evaluation skills	4	12	44	57	77	3.98
develop my communication, collaboration, co-operation and negotiation skills	1	13	38	61	82	4.08
Manage change and complexity	13	5	47	54	76	3.90
think critically	12	6	42	100	34	3.71
Taking responsibility for my own behaviour	0	12	46	86	51	3.90
Express a personal vision of the world showing understanding and respect for diversity	0	1	38	85	71	4.16

A very powerful message is presented from the responses dataset; although, again, the responses are very positively skewed, it is interesting to observe that the highest rated statement (average 4.16) was "Express a personal vision of the world showing understanding and respect for diversity". This is somewhat of a celebration of the ethos of the OpensoundS project and very much inline with the European community's ethos and aspirations for younger generations' development of a greater understanding and respect of diversity (cultural, economic, racial, developmental, etc.).

## 6. General analysis of the results

Wanting to at this point to summarize the results of the experiment, conducted in Italy, Great Britain, Denmark and Spain, in terms of learning purchase / acquired by the students through the use of the OPEN Sounds platform, and more generally in the field of music technology education, it is useful to distinguish between:

a) between acquisitions clearly due to a structured framework of knowledge and skills b) and acquisitions invest more properly transformations on the conceptual and operational.

The first important indication provided by the data collected through the survey is that major acquisitions obtained / obtainable by the students are all directly attributable to the "**Common European Framework of Key Competences for Lifelong Learning**"<sup>7</sup> and the objectives of the "**Strategic framework for European cooperation in the field of education and training - ET2020**"

With regard to the eight key competences, in the "Common European Framework of Key Competences for Lifelong Learning", the analysis of the data collected shows that the skills listed as achieved quite correspond **to 6 out of 8 of the objectives of the framework**, and more specifically: **communication in foreign languages, basic competences in science and technology, digital competence, learning to learn, social and civic competences, and cultural awareness and expression**. As recently clarified the recommendation of the European Parliament and of the Council:

"The skills are defined the same way as a combination of knowledge, skills and attitudes appropriate to the context. Key competences are those which all individuals need for personal fulfillment and development, active citizenship, social inclusion and employment. The key competences are all considered equally important, because each of them can contribute to a successful life in a knowledge society. Many of the competences overlap and interlock: aspects essential to one domain will support competence in another. Competence in the fundamental basic skills of language, literacy, writing, numeracy and information and communication technologies (ICT) is an essential foundation for learning, and learning to learn supports all activities learning. There are several themes that are applied throughout the Reference Framework: critical thinking, creativity, initiative, problem-solving, risk assessment, decision taking, and constructive management of feelings play an important role in all eight key competences."<sup>8</sup>

As evidenced by the text of the Recommendation cited above, in addition, also the learning / skills corresponding to all Issues that apply to the framework, the critical thinking to creativity, the ability to solve problems to the constructive management of feelings, all appear

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<sup>7</sup> In the Recommendation of the European Parliament and of the Council of 18 December 2006 inviting the Member States to develop the provision of key competences for all as part of their lifelong learning strategies, including strategies for achieving universal literacy, using the framework 'key competences for lifelong learning' as a reference tool the European reference Framework sets out eight key competences: communication in the mother tongue, communication in foreign languages, mathematical competence and basic competences in science and technology, digital competence, learning to learn; social and civic competences, sense of initiative and entrepreneurship, and cultural awareness and expression.

<sup>8</sup> Recommendation of the European Parliament and of the Council of 18 December 2006 - Official Journal of the European Union - EN - 30.12.2006 L 394/13- L 394/14

to be been acquired and/or acquired through a work of digging and diving in the frontier active and constructive represented by the use of the combination of music and technology in education.

But what about the connection between the results of experimentation in terms of knowledge and skills that students claim to have been obtained / obtainable by the practices that create shared network music and objectives of the "Strategic framework for European cooperation in the field of ' education and training - ET2020 - "these are no less surprisingly consistent and coherent.

The framework addresses, in particular, the following four strategic objectives:

1. **make lifelong learning and mobility a reality** through the implementation of lifelong learning strategies, development of national qualifications frameworks linked to the European Qualifications Framework, the creation of more flexible learning pathways;
2. **improve the quality and efficiency of education and training**, through the development of projects to enable all citizens to acquire the fundamental skills, the promotion of excellence and attractiveness of education and training developed at all levels;
3. **Promoting equity, social cohesion and active citizenship**: policies through education and training that will enable all citizens to acquire and develop professional skills and competencies needed to foster their employability, further learning, active citizenship and intercultural dialogue;
4. **encourage creativity and innovation**, including entrepreneurship, at all levels of education and training, through practices that encourage the acquisition of transversal competences by all citizens and ensure the proper functioning of the triangle of (education / research / innovation). The same practices should promote knowledge partnerships between the business community and educational institutions, and encourage broader teaching community, including representatives of civil society and other stakeholders.

Here, too, appears to be very significant level of coherence between the objectives of the Strategic Framework 4 2020 just set out, with particular reference to 2, 3 and 4 and e the numerical size of the answers given by students and teachers in the OPEN Sounds European network testing activities.

All of the capabilities that OPEN Sounds users declare acquired and/or acquirable and percentages as significant as those mentioned above support the objectives of the Strategic Framework ET 2020.

**Desire for excellence, appeal for education, active citizenship, intercultural dialogue employability, creative expression, the desire to research and innovation are the key features of the framework and inseparable**, as amply confirmed by the students of the European Network of testing , **from the practice of creating creative projects in music and transnational virtual teamwork, promoted and finally possible / accessible within the European educational system thanks to OPEN Sounds**

A particular merit reflection, however, **the main acquisitions on the conceptual and operational**, directly attributable to the activities of the network, habitual use of web based

applications, the progressive acquisition of logical work / creation of collaborative and connective tissue. This type of activity, if practiced in the field of education, allow you to introduce into the learning process many elements of discontinuity with the past. In the specific case of the practices under investigation, the main conceptual dimensions and operational which was facilitated access are attributable in particular: the content management and collaborative practices, and the relationship with the creation and production and the very idea of authorship.

In relation to the management of training **content** should highlight the possibility offered to students and faculty by digital technologies and music from the network: build pathways to learning and creative production of both individual and social; create virtual forms of collaboration between teachers and students, to enjoy with extreme accessibility and breadth of information, creative products / training and practices and share them with others constantly. As for the **process of collaboration** more possible acquisitions on the conceptual and operational are due to the possibility to gain a direct access key about the "grammar of action awareness of new media." Be able to access sound materials / information / training provided by others in the network and, in any case, re-usable and editable, and be able to share / create music remotely, are practices that allow us to grasp the sense of change within a process by which individual expression comes to writing a subsidiary, the result of visions, interests, knowledge, culture, vocation, emotions, sometimes very distant and, yet, right in collaborative practice can not find a common synthesis.

Other acquisition center that is achievable through the use of DT and the network has to do with the **relationship with "authorship"** and refers to the development of awareness of the provisional nature of all creative production and perfectible or not. In becoming "the practices and things," it becomes possible to learn how to learn to focus to the "transformation" rather than towards a "performance and an end." The production assumes the character of a continuous process to work towards and not something to be achieved, a process that in its making redefines the concept of "authorship" and those closely related to "authorship" and "ownership". The exchange and / or construction of a common product / project / process lead "each user to be, at the same time, author and beneficiary" in a continuous interaction of roles.

Another, central acquisition practices creative network *is to accept that any personal contribution to a production / creation* is element of a common heritage. You do not lose anything if there is a commitment to create something (a song, training materials, a common project.) That the end does not belong to us individually. If you work in a group, community network, participated in learning networks, each "connective" is the product of all, it is good that we might call 'common'.

Further, several conceptual and possible acquisitions are, again, those to learn to take as a benchmark the **plurality of points of view**, the possibility of understanding, that is, how to adopt / mediate different points of view on the possible development of a common creation learn In short, to recognize as significant creative perspectives different from their own.

The results presented above it seems they can take undoubted importance and strategic value in the training of students as future, independent and aware citizens of the real world and as individuals capable "of conceiving of the virtual worlds of meanings or shared sensations, with the opening of spaces where they can unfold the collective intelligence and imagination"<sup>9</sup>.

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<sup>9</sup> LÉVY 1994

The data thus confirm the great potential of the OPEN SOUNDS environment once integrated in the educational context for the **acquisition of transversal competences** and specific, to **promote learning motivation**.

The values added by users identified the most relevant are:

- **The promotion of cooperative learning;**
- **The reasons arising from the approach based on online communities;**
- **The ability to connect formal and informal learning ("inside and outside" the school);**
- **The ability of the model to develop skills useful beyond the specific context of the music;**
- **The ability to increase the chances of transition into the labor market.**

The web portal and tools developed were evaluated very positively by the users, who have pointed out:

- User friendly tools;
- The clarity of the instructions and information provided;
- The usability of the platform;
- The value of project dedicated to music production and remote sharing.

Given the feedback and comments collected priority objectives of the phase of dissemination and exploitation of the project results, the consortium will continue to promote the integration of OPEN Sounds environment in the context of education and training and to exploit the project results even within the wider community of musicians, artists and creators of digital music.

The Consortium also take in consideration further development of learning paths and the creation of educational models in order to better exploit the potential of OPEN Sounds environment for educational purposes.