

The L-Acoustics Education platform, an online tool for blended learning in live sound

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ABSTRACT

L-Acoustics is a French audio brand known for having introduced several disruptive technologies in the sector of live sound, like in 1992 with full-range line sources, or more recently with large-scale immersive audio. To accompany the end-users on the mastering of these new tools, training and education has always been a core foundation of the company.

In addition to a program that is now clearly designed under the perspective of vocational education, the L-Acoustics education team has fully embraced the company DNA of innovation and has launched an online platform to support its blended learning strategy.

This interactive tool will be the focus of this text, describing how it augments the learner experience in both instructor-led sessions and autonomous learning activities, with learning quizzes, videos, tutorials, certification tests and an online space for the learning community to exchange.

Keywords: blended learning, instructor-led session, online education platform, learner engagement, learning community

1. INTRODUCTION

In the definition of an education program, the curriculum is obviously important. Over the last 15 years, the L-Acoustics program has evolved from a traditional product training approach to vocational education[1]. The courses

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are designed and organized according to the needs of specific job profiles. It now encompasses complementary pieces of knowledge: product training, technological updates, knowledge essentials, expert insights, workflows, and methodologies.

Beside the content itself and its educational value, the delivery method is as much decisive. L-Acoustics has adopted a blended learning approach[2][3]. If the entry gate and core of the program is still based on face-to-face classrooms, L-Acoustics has launched an online education platform to enhance learner engagement. This interactive tool is used in instructor-led sessions, but also supports the on-going education of certified learners with autonomous eLearning content. It is also the start of a mixed learning community, made of professionals and students, who can interact between themselves and with L-Acoustics experts and instructors.

2. THE BLENDED LEARNING APPROACH AT L-ACOUSTICS

2.1 What is blended learning?

It is difficult to find a universal definition of blended learning since it can take many forms. It may be expressed as a mixture of in-person and online delivery, or a sequence alternating autonomous eLearning and classroom contact time. It has already been demonstrated that this blending increases learner engagement over pure eLearning or pure classroom-based programs[8][9].

Modern interactive technologies keep pushing the concept further. Traditionally, an instructor-led classroom was held in-person, as a face-to-face interaction in a shared time and space. But using an online conferencing platform, space is not a constraint anymore. Virtual classrooms allow reaching remote learners and more of them at the same time. And in

2020, the Covid-19 pandemic has greatly accelerated its adoption[4][5]. In addition, learning technology companies have been proposing more and more connected interactive tools to augment the in-person classroom[6][7], whether held onsite or online. It can be learning quizzes, serious gaming, or other concepts borrowed from traditional eLearning. But these computer-based activities are then led by the instructor and benefit from being done synchronously as a group with the instructor adopting at times the role of a moderator.

Following these observations, we will opt for a more precise definition of blended learning as a thoughtful combination of face-to-face instruction and computer-mediated activities. And as in any mixture, the balance between its components can vary.

2.2 Instructor-led sessions benefits

At L-Acoustics, the roots and remaining core of the education program are instructor-led sessions. L-Acoustics certified trainers are selected for their skills and work history as audio professionals and instructors. They increase the value of the reference content by connecting the delivered knowledge to real field experiences. Over the last years, computer-based activities have been introduced as additional media that enrich the classrooms, making the switch to a blended learning program.

For each of the available L-Acoustics courses (17 as of 2023), the typical format consists of a one-day onsite session and lead to a specific certification. During the day, the instructor alternates content delivery, and practical exercises. The instructor leads activities like guided tutorials, learning quizzes or participative workshops. The in-person context eases both the connection and the interactivity between the learners and the instructor. The latter can better assess the audience to better drive the pace and the focus. He can also use non-verbal cues to continuously react and adapt.



Figure 2: typical organization of an onsite course

Two formats, onsite or online, are available for eligible courses, i.e. not requiring hardware for practical activities.

The online version consists of two virtual classrooms spaced 1 week apart. Autonomous activities must be completed by the learner in between. They comprise eLearning content, learning quizzes and software tutorials. The date of second virtual classroom is the deadline for learners to finalize their assignments.

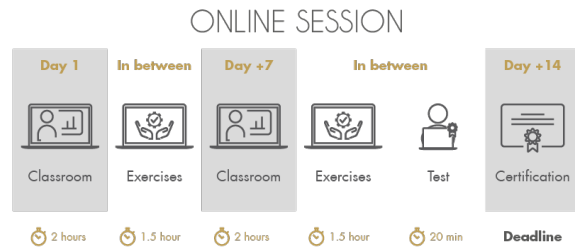


Figure 3: typical organization of an online course

In this online format, the role of the instructor is as much important, if not more if we consider the associated challenges for learner engagement. It requires specific skills and techniques to bridge the physical distance between participants[10] and to prevent learner distraction. The digital tools can support this, allowing the instructor to exchange with participants during and after the virtual classrooms to maintain learners' attention and create a sense of community. Instructors may post welcome messages, provide timely response to questions, give feedback on work assignment, or comment specific parts of the learning material.

In both modalities, onsite or online, the instructor remains the key pillar, mentoring the learning experience and channeling attention and engagement of learners, even in computer-based activities. It allows maximizing the completion rates of L-Acoustics courses (~90% over the last 12 months for more 650 sessions).

2.3 eLearning for post-training engagement

One of the major challenges in the audio community, and maybe more generally for product training, is that professionals are reluctant to come back twice to a manufacturer training. However, the audio technologies, along with its associated tools and methodologies, are constantly evolving. Ongoing education is needed.

To address this problematic, the L-Acoustics ambition is to extend its educational reach after the completion of an instructor-led session, supported by online computer-based activities and creating communities.

3. THE L-ACOUSTICS EDUCATION PLATFORM

The L-Acoustics online education platform is based on an SAAS solution provided by 360 learning[12]. It supports the learner journey for the instructor-led sessions and the post-training engagement. It hosts all learning content and computer-based activities. The platform gathers a fast-growing community of over 9000 users (+50% in 2022).

3.1 Architecture and interface

The platform has been configured so that it provides the best match between the functional affordances of the tool and the learning strategy of the L-Acoustics education team. An access to personalized space is granted once a learner registered to a course session, online or onsite.

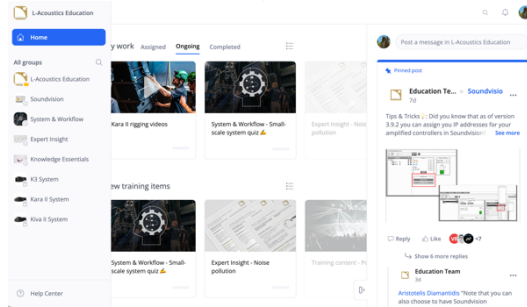


Figure 1 L-Acoustics education platform home page

The home page of this space contains three main panels from left to right (Figure 1): groups, learning, messaging. The groups panel displays the list of groups the user belongs to. The learning panel provides links to both the ongoing and upcoming sessions a learner is registered to. It also exposes all the content the user has access to, in relation to the selected group. The messaging panel allows all user profiles to interact and the L-Acoustics team to manage different community levels.

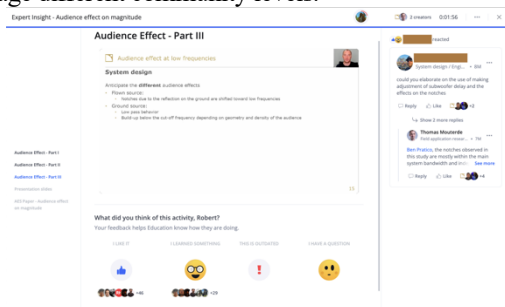


Figure 2 course view

The course content is accessible through a session or a group. It is organized as a path, containing different learning bricks: presentations, videos, interactive quizzes,

downloadable documents, or files. Each learning brick offers a contextual messaging panel, enabling content-based discussions and feedback from learners.

3.2 Content in sessions

In a session, only the learning content actively used by the learner during the classroom is provided and the learning bricks are made accessible sequentially. The instructor also uses the platform to display and animating the interactive learning quizzes. The online sessions contain more online content because of the autonomous eLearning bricks. All sessions end with a certification test, to pass autonomously after the declared session time. The content of a session is fixed in time and does not reflect the potential later updates to a course.

3.3 Content in groups

Right after the session, an additional access to a group is granted, associated to the course the learner has been certified for. This group contains the always up-to-date version of the learning material, but also supplementary resources. These can be additional eLearning bricks (application scenario, functionality focus, white papers, scientific articles) or complementary material for autonomous practice (software tutorials, multi-track audio files, rigging videos). These groups allow the ongoing education of the user without imposing the return to an instructor-session for learning about the latest updates.

Two additional groups provide exclusive on-demand material to all platform users. The “knowledge essentials” group contains background information that is relevant to the live sound practitioners, on subjects like auditory health, room acoustics, or network technologies. The “expert insight” group provides advanced scientific knowledge on live sound systems, based on L-Acoustics research or technologies, augmented with external sources. Published topics comprise spatial algorithms for front-fill systems, effect of the audience on the low frequency response, noise pollution at low frequencies.

3.4 Creating communities

The creation of communities is an important vector of learner engagement[11]. On a 360-learning platform, the messaging panel is the main functionality that allows it.

At the smallest scale, a community is created for the participants of a same session. It offers a private space to engage with the learning material, the instructor, and the other classmates. Messages can relate to the content but also

to the logistical aspect of the session. The messaging panel can be used to exchange files during a session.

Then, each group of the L-Acoustics platform can be considered as a community.

At the largest level, the global platform group gathers the full community and is used by the L-Acoustics team to post proactive messages on a weekly basis. It may outline updates on the content, provide tips and tricks, or comprise polls.

The groups associated with each course constitute communities of fellow certified learners. They allow for more targeted discussions and questions that can be answered by either L-Acoustics experts or other group members.

Finally, a dedicated group is created for each of the Authorized Training Centers, a worldwide network of 25 partners entitled to organize official L-Acoustics sessions. This group allows the partner and its associated instructor(s) to manage the interaction within a local community of professionals, and to communicate in a foreign language if necessary.

4. CONCLUSION

This paper presents the blended approach adopted by L-Acoustics. It is based on a combination of instructor-led sessions, either onsite or online, add additional resources available online in the L-Acoustics education platform during and after the sessions.

The access to the education platform is open to learners registered to L-Acoustics sessions and remains once certified to a course. This login-based system makes a barrier for ease of connection but also helps at creating a sense a community, which is a key element for engagement. More group accesses are gradually open as the learner gets additional course certifications, providing a personal space that reflects the individual learning path.

The challenge is mostly to maintain engagement after the sessions, motivating learners to come back on the platform to remain up-to-date, complete their learning journey, and eventually register to sessions for complementary or new courses. This requires communication with learners both through the platform and over more traditional communication channels (mail, website, social media).

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