

PROMOTING INSTITUTIONAL CHANGE: EMBEDDING LEARNING DESIGN

USING LAMS IN ESOL

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Abstract

The use of the Learning Activity Management System (LAMS) to support English to Speakers of Other Languages (ESOL) learners has been shown to enhance learning in a Further Education College in North West London, UK. In this paper the authors discuss the findings of a pilot project that explored its use with different groups of learners. They consider some of the pedagogical issues affecting the integration of learning design using LAMS in the curriculum and its uptake by staff in the wider community. Cultural factors that contribute to the sharing of learning designs and, ultimately, the adoption of learning design by a community of practitioners are discussed and conclusions drawn about some ways to develop capacity.

1. Introduction

As a partner college in the JISC funded eLISA¹ and eLIDA CAMEL² projects, the learning design tool, LAMS has been employed in the ESOL Department at Barnet College, a Further Education College in North West London since 2006. Students and teachers had reported positively on the use of LAMS during these projects to support teaching and learning but the trials had been small, involving three teachers and three classes of students. Insufficient evidence to support the widespread use of learning design prevented the wholesale adoption of LAMS in the ESOL Department, although the indicators for adding value and enhancing learning were encouraging. The College agreed to fund a further pilot to establish whether similar results would be replicated when a larger number of students and staff used LAMS. The project included two external partners, namely the University of Greenwich, which provided initial training, and LAMS International, which hosted LAMS. The pilot ran from

¹ e-Learning Independent Study Award (eLISA)

² e-Learning Independent Design Activities for Collaborative Approaches to the Management of e-Learning

February to July 2008 and involved eight teachers and 93 students. The aims of the project were to examine the extent to which LAMS:

1. can enhance planning and delivery of student-centred ESOL lessons;
2. can support all levels of ESOL learners;
3. can facilitate the sharing and repurposing of learning designs by other teachers in the ESOL Department.

In a project such as this where a clear framework of support was needed, a particular approach was adopted whereby members of staff were encouraged to share their ideas and designs, and collaborate on developing designs for learning practices. In this paper the authors pay particular attention to, and suggest some of the conditions required for, the emergence of a learning design community of practitioners using LAMS in ESOL.

2. Concepts of design for learning

The planning for and delivery of learning is increasingly referred to as ‘design for learning’ or ‘learning design’, especially within the context of the digital age. Beetham (2007) defines learning design as “a set of practices carried out by learning professionals...” defined as “designing, planning, orchestrating structuring and supporting of learning activities, which involve the use of technology, as part of a learning session or programme”. She concludes that for learning to take place, the designs must be realised or run. Beetham’s definition, which includes all the aspects of planning and delivery of teaching and learning with technology, fits well with the use of LAMS.

Pearce and Cartmill (2007: 3) comment that, ‘The LAMS tool, in particular, is designed to elicit constructivist design and is particularly effective in facilitating a more active approach to students’ learning’. Teachers who already take an activity-focused approach to designing their students’ learning find that using learning design tools helped them to extend their thinking (Masterman, Jameson & Walker, forthcoming). Indeed, it was apparent to the ESOL teachers already used to designing learning outcomes and devising activities to meet them, that there was synergy between the way they usually planned their lessons on paper and lesson planning which took place using LAMS. LAMS can help to improve a practitioner’s thinking and planning skills, (Jameson, Walker, Riachi, Kelly & Stiles, 2008 and Walker, 2008).

3. The development of communities of practitioners

Successful and sustainable design for learning requires, amongst other things, being a part of a community of practice, which may be broken down into components such as individual teaching and learning expertise, an understanding of classroom practice and being a part of a community of practice (Jameson et al., 2008). It could be argued that the ESOL teachers at Barnet College were already engaged in community of practice activities; new teachers are supported by more experienced teachers and become part of its supportive community, dynamically evolving new roles through the process of ‘legitimate peripheral participation’ (Lave & Wenger, 1991). This is further strengthened by a culture of sharing teaching and learning materials such as books and other print-based materials. Web-based resources are distributed, between teachers formally, via the College’s managed learning environment (MLE) and informally via e-mail. However, paper-based learning designs, i.e. lesson plans, are not commonly shared. The question was whether this community would easily adapt to sharing LAMS learning designs, and, if clear benefits to stakeholders were in evidence, what sorts of drivers would be needed to embed the use of learning design tools such as LAMS.

4. Existing research using LAMS with ESOL learners

There have been a number of LAMS trials in Australia and in the UK since 2004. Although most of these trials focused on the practitioners’ viewpoints rather than the learners, they report on the high level of student engagement and enjoyment when using LAMS (Gibbs & Philip, 2005). Butler (2004) suggests that LAMS aids students’ learning, understanding, cognitive skills and it enhances motivation. It also encourages differentiation, revision, self-paced and collaborative learning, as well as promoting independent learning (Russell, Varga-Atkins and Roberts, 2005). The JISC eLISA project concluded that there were important gains for learners and practitioners from using e-learning tools such as LAMS when delivering study skills (Jameson, 2006).

There has been little published research on the use of LAMS with ESOL learners and teachers. However, the findings that do exist demonstrate positive results. Burns’ (2008) small scale analysis with 15 pre-intermediate ESOL students showed highly positive learner preferences for using LAMS as part of classroom learning. She measured the effectiveness of learning by comparing test scores of the LAMS group with a parallel class of learners who did not use LAMS and found that the LAMS group’s scores were higher. She concluded that LAMS enhanced learning and “had a positive effect on student motivation and participation, and aided independent learning”.

One element of the pilot study was to ascertain whether LAMS is a suitable tool to use with all levels of language learners. It was therefore important to include a wide range of learners to measure its effectiveness with all levels of ESOL learners.

5. Methodology

Project participants included eight experienced ESOL practitioners who had a range of technological skills but who were all new to LAMS, and ninety-three students from E1 (beginners) to L2 (advanced)³ who had used LAMS for the first time during the summer term of 2008 as part of this project. The teachers in the pilot group were self-selecting as they responded to an e-mail inviting them to take part in the study. The students in the pilot comprised groups of ESOL students that the teachers taught regularly and included a group of trained teachers from overseas who were learning English. The students were from diverse origins, religions, cultures and educational backgrounds (Figure 1). Their ages ranged from 16 to over 60 (Figure 2) and they possessed a range of computer skills from beginner to advanced. Their computing skills were assessed at the beginning of the year using college based diagnostic tests.

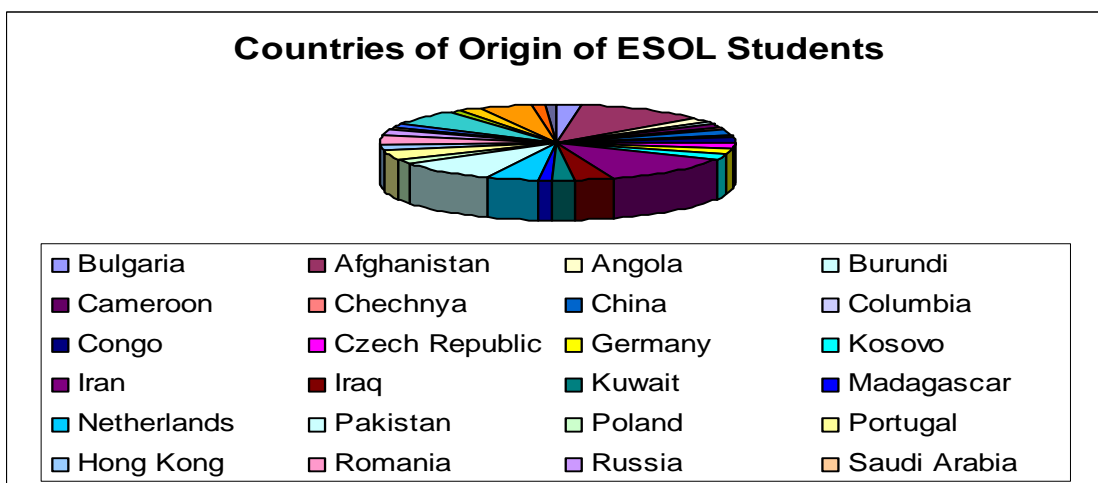


Figure 1. ESOL students' countries of origin.

³ These levels are part of the National Qualifications Framework (NQF) which sets out the levels against which a qualification is recognised in England, Wales and Northern Ireland.

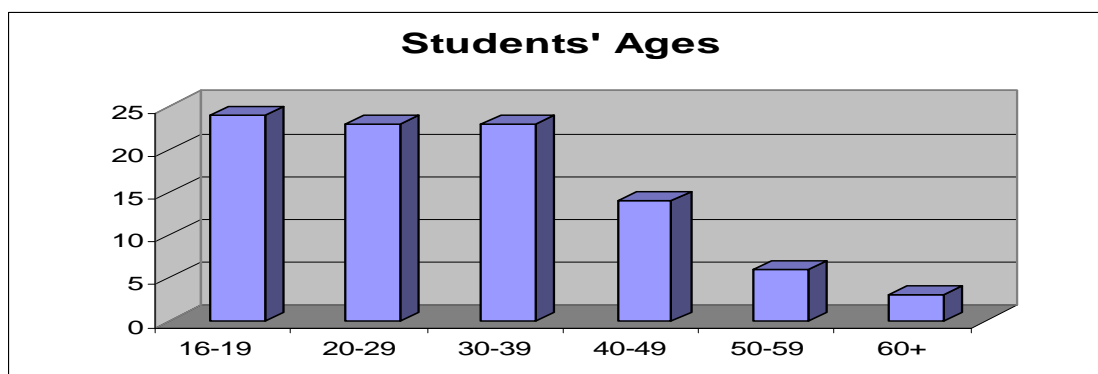


Figure 2. Student ages.

Participating teachers consented to:

- complete two, three hour face-to-face accredited workshops created by the University of Greenwich entitled *Introduction to Learning Design* and *Authoring with Learning Design*;
- create and deliver at least one LAMS sequence with a class of learners;
- evaluate their experience of LAMS using a paper-based questionnaire completed at the end of the lesson;
- facilitate their students' evaluation of the experience using a paper-based questionnaire completed at the end of the lesson.

A programme of support for all the teachers followed the formal workshops. Teachers were offered additional training sessions on 'using LAMS tools' and 'using LAMS with Hot Potatoes', drop-in sessions and, if needed, one-to-one sessions with the project manager. Prior to running their LAMS learning designs with learners, the teachers met together to critique each others' designs. They reported this as being a valuable experience, as it highlighted possible problems with the activities which could be resolved and improved before the designs were used with students over the 5 week trial period.

The designs covered a variety of topics (Table 1). Five of the learning designs concentrated on aspects of grammar, one on punctuation and the other four were topic based and concentrated mainly on reading and writing skills.

Table 1. ESOL classes that used LAMS.

Level of Group	Age range of students	No. of Students	Subject of learning design
E1 (beginners)	16-59	9	Punctuation
E2 (elementary)	16-18	12	Future predictions
E2C (elementary)	20-60+	8	Past Simple
E2B (elementary)	20-39	7	Past Simple (repurposed)
E3 (intermediate)	20-59	10	Newspapers (reading skills and vocabulary)
E3 (intermediate)	16-18	11	Present Perfect revision
L1 (upper-intermediate)	20-59	8	Carbon Footprints (reading and writing skills)
L1 (upper-intermediate)	20-60+	14	Charities (reading & writing skills and vocabulary)
L1 (upper-intermediate)	20-59	8	Type 2 conditional sentences
L1/L2 (upper-intermediate/advanced)	20-59	6	School Uniform (reading, writing and listening skills)

6. Limitations of the study

The teachers' evaluation questionnaire mainly included open-ended questions designed to capture more qualitative data about their experience of using LAMS. However, a few multiple choice questions were also included, to ascertain, for example, how effective they thought LAMS was as a learning and teaching tool. In contrast, and given the difficulty that students with low levels of English find in expressing themselves cogently when faced with a number of open-ended questions, the students' questionnaire consisted mainly but not exclusively, of multiple choice questions. The authors acknowledge the potential weakness of the analysis of the findings given the disparity of the student respondents' data in comparison with the teachers'. Another variable, for which data was not captured, was the type of learning environment or lesson location in which students used LAMS. This, along with the sole reliance on a questionnaire, as opposed to other qualitative data gathering methods such as interview, has implications for both the validity and reliability of the study and is recognised as a limitation of the study.

7. Findings

The project team recognised that one of the key drivers to embed LAMS would be to show potential improvements in learning outcomes, especially with members of staff who may be unconvinced by the efficiency argument. To influence pedagogical development in the department, it was seen as critically important to seek teachers' views, be informed by the student voice, raise awareness of the need to adopt new innovative practices and encourage discussion about how these may affect the normal learning and teaching experience. Eight teachers created and ran learning designs using LAMS 2.0. In addition, one of the teachers re-used a learning design which was produced by the project manager. The key findings are discussed below.

7.1. Student beliefs

77 students (82%) of the 93 who took part in the study said they liked using computers in their studies. None of the students said they had not enjoyed the LAMS activities; therefore, even students who did not like using computers to aid their studies said they had enjoyed using LAMS.

The majority of the students, 64 (69%) found LAMS easy or fairly easy to use. Only 13 (14%) said that they had found LAMS a little difficult and none of the students found LAMS very difficult to use. As this was the students' first experience of using LAMS, and bearing in mind the variety of computing skills among the cohort, it is highly likely that students did not find LAMS beyond their computing abilities.

When they were asked whether they had enjoyed their lesson using LAMS more than lessons without LAMS, 47 students (51%) said they had (Figure 3) and 83 (89%) stated that they wanted to use LAMS again including all nine beginner students (Figure 4).

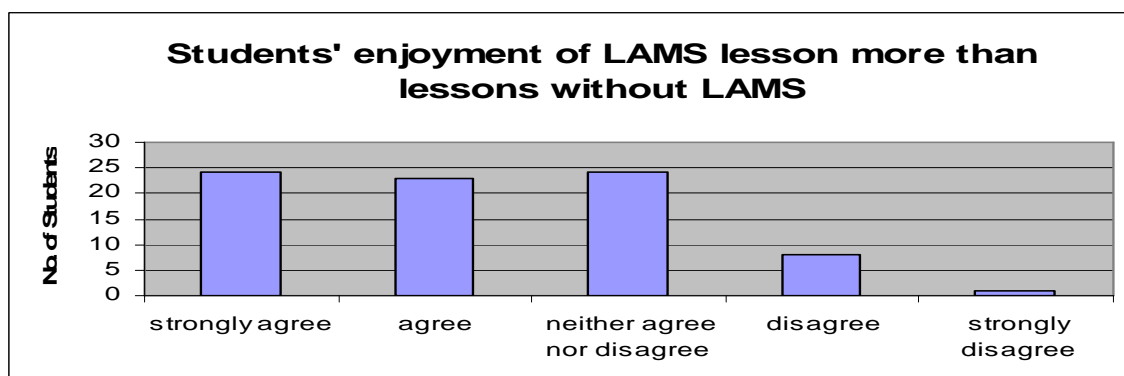


Figure 3. Students' enjoyment of LAMS lesson more than lessons without LAMS.

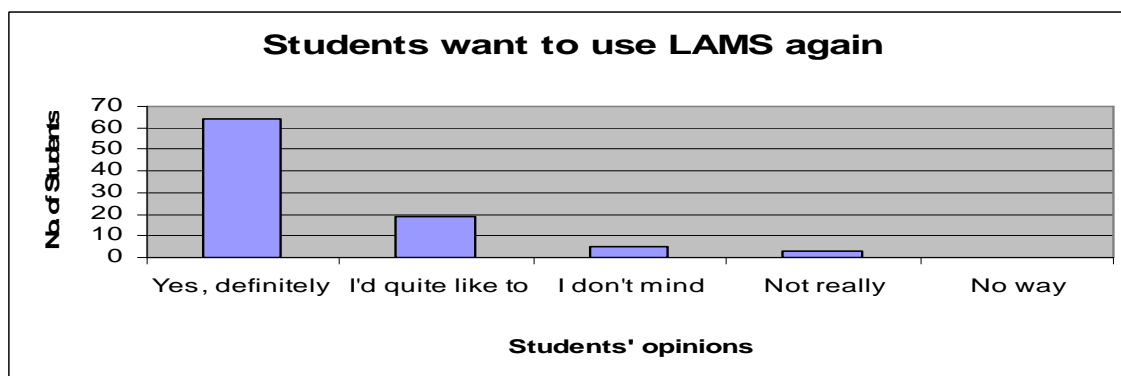


Figure 4. Students want to use LAMS again.

Students gave a variety of answers when they were asked what they liked best about their LAMS lesson. Some mentioned the use of the LAMS tools such as chat and the forum. Of the 93 students, 30 said they had enjoyed the chat the most. One of the overseas teachers who was learning English said she had liked the chat facility, “because it is a good and effective way to communicate with my classmates”.

Some comments related to how much they had enjoyed the exercises and to whether they had found the lesson interesting and fun. An L1 student remarked, “It is interesting and enjoyable”. Others stressed how different the lesson had been. An E3 student remarked, “I think it was something different. It has show us that we can also learn Grammer [sic] in a different way”.

Students commented that LAMS allowed them to work at their own pace; an L1 student observed, “It keeps you busy and you can work at your own tempo”. Students also reported on the benefits of the collaborative nature of LAMS and on being able to see what other students were doing. An E1 student remarked, “I liked reading other students’ answers” and one L1 student mentioned, “The best was that we could check all the answers together in [sic] the same time”.

7.2. Student issues with LAMS

Students were also asked what they did not like about the LAMS lesson. Twenty-nine students (31%) did not express any negative comments. Several students reported technical issues; five said they had problems printing and four students commented on the slow speed of the computers. Two students noted issues about the use of instructional language in some tasks which impeded their progress. Others were frustrated with the chat. One student

commented that it was difficult chatting with people who are slow as well as chatting with a lot of people.

All the LAMS lessons were delivered in a computing room at the college although it was made clear to students that they could access the designs remotely. One L1 student reflected on the blend of the classroom teaching with technology, commenting, “I think this software is good to use at home but during the lesson is [sic] better to learn with traditional way.” This differs to Burns’ findings (2008) with pre-intermediate students who expressed a preference for using LAMS in the classroom with a teacher so that they could have help with language and computing problems. Providing opportunities for using LAMS outside the classroom might, therefore, be more suitable for higher level language learners. This finding may add support to Alexander’s (2008) claims that, as LAMS is literacy based, it “might be more suitable for, or manageable with, higher level learners who may also feel more confident about 'publicising' their ESOL writing.”

In summary, the project evaluations found that the majority of students using LAMS, regardless of their English level or computing skills, reported a positive experience and wanted to use the system again. They particularly liked the chat and the approach to learning English in a different way. An overseas teacher made the point saying, “I really like [sic] this lesson [as it] was different from the way we usually learn English”. Whilst these findings are largely positive, it is important to note that the participants were all classroom based and, if used remotely, LAMS benefits may only be realised with higher level learners who generally appeared to be more confident computer users in this study.

Only one teacher used LAMS twice so the novelty factor of using LAMS with learners cannot be ignored and this may be a further legitimate limitation of the study. However, Burns (2008) used LAMS with the same group of ESOL students six times in a term and the students remained enthusiastic. Butler (2004) also reported during the initial UK trialling of LAMS that teachers at Kemnal Technical College used LAMS for over a year and the students remained motivated and keen to use it.

7.3. The teacher experience

Eight teachers participated in the LAMS pilot and completed a paper-based questionnaire following the delivery of their LAMS lesson. All the teachers rated their computing skills as very good or good and six found it easy or quite easy to create a learning design in LAMS but two teachers found it quite difficult. It took them between two and ten hours to create their

first sequence. Nevertheless, one of the teachers found it much quicker when she created a second sequence. The key findings are described below.

7.3.1. ESOL issues

Five of the eight teachers said that using LAMS had changed the way they prepared and planned their lesson. TJ commented that it had completely changed her approach to the design for learning. “It was a student led session and I had very little to do as the session ran itself. The students took charge of their own learning”. TE said she concentrated more on the instructions and the order of the tasks. TP observed that the lesson “had to be more structured but was less flexible because students can’t go back to a previous activity”. TO and TT stressed that they had used more varied types of activities than usual such as chat, a forum, MCQ (Multiple Choice Questions) and voting. However, TD disagreed saying that it did not change the way her lessons were planned, the only difference was that it, “opened up the opportunity to use different resources”. TF said it did not change the way she planned the lesson but she thought, “it’s helpful to teachers to plan a lesson which progresses logically”.

There were a number of language issues. TJ found that asking students to use formal language in the chat room inhibited the flow. “We decided it was not appropriate when responding to classmates ad-hoc”. TN considered that some of the online exercises were difficult for her E1 students. TE commented that students were distracted by advertisements on some websites to which she had directed them.

When asked what changes they would make to the sequence if they could run it again, two teachers suggested keeping the sequence simpler. TN said, “Basically I was very pleased with my sequence; however, I would add a section for the students to write their own sentences”. TA said she would devise her own exercises using Hot Potatoes rather than using links to online exercises. Two teachers said they would spend longer revising work which they had expected students to have remembered but they had not. This is a common problem which ESOL teachers find in face-to-face classes too.

Other issues revolved around the instructions. TP and TO commented that students did not read the instructions properly and TD remarked that the instructions “are very small and not easy to read”. She also said that technical hitches had occurred when the instructions were not followed. TF admitted that she should have given better instructions. She considered that, “Instructions are key to the success of LAMS” and advocated more training in this area.

7.3.2. Teacher beliefs

The teachers had a range of comments when asked what had gone well in their LAMS lesson. TP said, “the students were very involved in the sequence”. TE commented that “although it was a difficult grammar exercise they just said it was great fun”. TO said the topic was useful for the students and they liked using the different activities. She was impressed how the students helped each other. TN wrote how much her E1 students had enjoyed the forum and seeing other students’ ideas. TJ considered that the whole lesson had gone well. TA noted that the students had understood how to progress through the sequence and were therefore able to work independently. TF also commented that the students had worked independently and at their own pace. She further stated that the chat had been very effective; a sentiment also expressed by TD.

The teachers considered the main advantages of using LAMS with ESOL students were that they could work independently, and at their own pace and the flexibility of undertaking tasks at home and/or at college. TO thought that, “LAMS can be used for extra practice for many language points and topics”. TP considered that, “Lessons can be very creative”. TF observed that, “The students were absorbed and engaged throughout. The chat as a teaching resource has huge potential. LAMS makes for a student-centred lesson with students taking responsibility for their own learning. Students will become more independent learners”.

The teachers considered that the main disadvantages of using LAMS with ESOL students were primarily technical. They reported other issues such as the length of time it took to create a sequence, and that there was “less verbal communication and group interaction,” in the lesson than normal as the design did not include speaking activities (TA). The teachers also mentioned that there were problems for students with weak IT skills. As TN stated, “For students with poor IT skills, the IT aspect got in the way of learning”.

When teachers were asked how effective they considered LAMS is as a learning and teaching tool, four said ‘effective’ or ‘very effective’ and the other four said ‘quite effective,’ (Figure 5). Five teachers considered that it would be easy or very easy to adapt another teacher’s sequence to use with their learners. However, only three teachers definitely wanted to use LAMS again and the remaining five stated that they would quite like to use LAMS in the future (Figure 6).

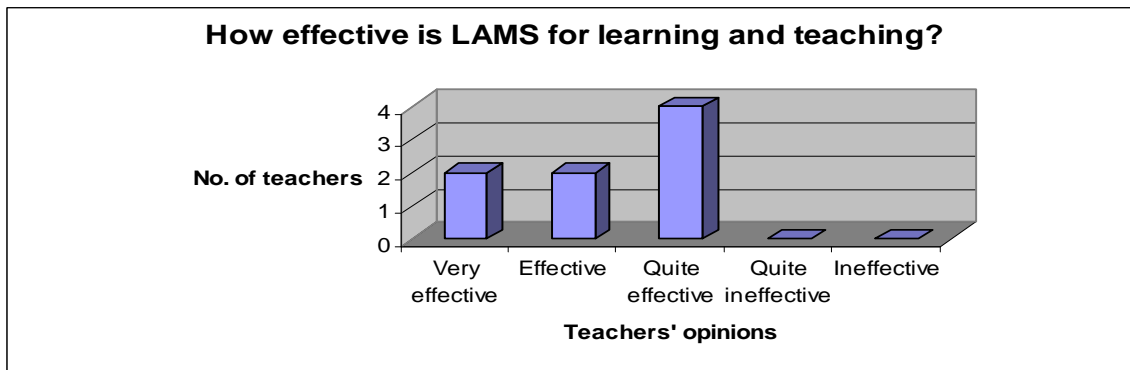


Figure 5. The effectiveness of LAMS for learning and teaching.

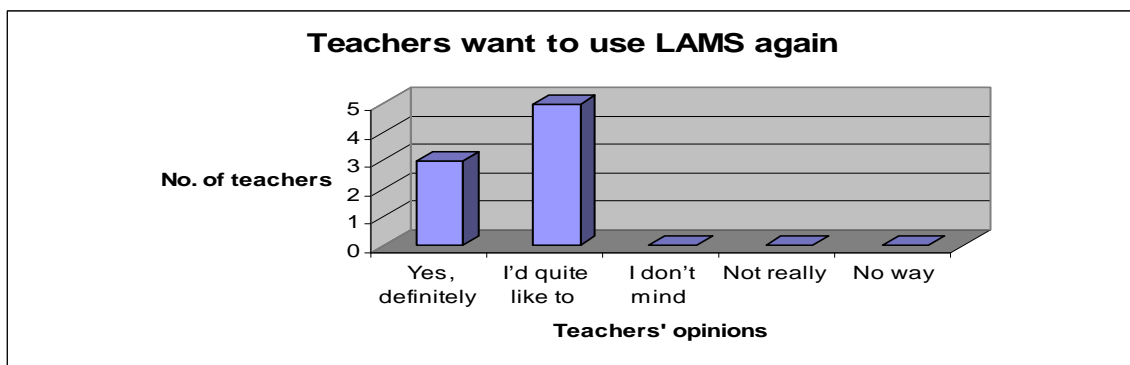


Figure 6. Teachers want to use LAMS again.

7.4. Technical issues

The teachers also commented on things that went badly in their LAMS lesson. These included a number of technical issues, such as the sequence not opening, tasks taking a long time or failing to load, the inability of some students to print their work and that students had found they could not go back to previous activities to consolidate their learning. TN was concerned that “Students were able to leapfrog some activities both intentionally and unintentionally”. TF found it frustrating that she had to keep refreshing the monitor screen in order to see what the students were doing and TA wasn’t able to use the monitor at all as she had to let a student use her PC as the sequence didn’t work properly on the student’s computer.

Six teachers said they would recommend other teachers use LAMS, one gave no response and one teacher had some reservations stating; “it is cumbersome at times and lacks the flexibility and reliability I would expect if I was to use it regularly and introduce it to other teachers” (TF). The idea of sharing and using each other’s sequences was also

mentioned as TE said, “We could share our sequences. I have seen some of my colleagues sequences that I would like to use with my students”.

The teachers generally considered that LAMS was a useful tool for planning and delivering student-centred ESOL lessons. They found that LAMS made learning enjoyable, motivated students and supported self-paced, collaborative and independent learning. TF commented that “it was interesting to see the positive response of the learners”.

However, the teachers had some reservations. TF pointed out, “With more efficient hardware at college, with technical support and reliable LAMS software which needs to be speedier and less cumbersome, it certainly could be embedded”. In fact it was mostly technical issues that reduced both the teachers’ and students’ confidence in LAMS.

In summary and notwithstanding some technical issues, all the teachers managed to create, deliver and evaluate their experience of using LAMS. Most recommended using LAMS to colleagues. Whilst the teachers espoused enthusiasm for sharing and reusing other teachers’ sequences only one teacher reused a design during the pilot. They were generally keen to develop new designs and could see the potential of the tools. This finding is consistent with findings in previous studies (Walker & Masterman, 2006).

8. Leveraging organisational change

In this project, learners and learning have consistently been at the heart of the work; tutors have experimented with new approaches to designing learning to enhance the achievement of learning outcomes. Staff have capitalised on the social and cultural norms of existing practices. They have trialled, critiqued and discussed LAMS designs with one another and have felt comfortable in these roles. Using LAMS is a natural extension to sharing ideas and learning resources in the department. Instead of the sole practitioner working in isolation, the picture of many working together emerges. Jameson et al. (2008: 9) notes that “design for learning implementation and evaluation by practitioners benefits greatly from structured social networking processes developed in a long-term community of practice”. These processes are extremely valuable in providing a framework of support to enable an individual practitioner to take new practices forward. The use of learning design tools appears to integrate easily with the way that ESOL is taught and adds a new and exciting dimension to ESOL lessons. The use of LAMS appears to work well when it is local and contextualised and where a community of teachers exists who provide support for each other and who already share materials readily. The teachers were keen to re-use their own learning designs and advocated a willingness to re-purpose other teachers’ designs, although it was clear from

this study that further research into the conditions that might encourage reusing and repurposing LAMS designs needs to be undertaken. To implement a culture of sharing, teachers during a project feedback meeting considered it necessary to establish a procedure whereby designs should be categorised by course and level within the LAMS folder hierarchy.

In the first feedback workshops, listening to the students' response to LAMS and to other teachers discussing their approach to designing learning and the toolset they employed, seemed to have a positive impact on practitioner confidence and appeared to increase the motivation and interest in designing and improving learning. Simple strategies such as sharing tips on using LAMS by practitioners, who have previously used LAMS, makes a difference to its successful use with learners.

The self-selecting staff involved in this project all seemed to share four main characteristics:

- (a) intellectual design; they had a good grasp of the emerging pedagogical issues within subject discipline/metacognitive areas,
- (b) individual expertise; they understood knowledge acquisition processes, exhibited ICT competency, a 'can do' attitude, acceptance of the need for curriculum redesign, understood the needs of the current learner and the shape of the future learner,
- (c) social awareness and competence in dealing with people,
- (d) community involvement; they were used to sharing and collaborating with one another.

While it is still early days in the adoption of learning design tools as a normal activity, it would appear that these characteristics are essential for the development of the conditions for learning design to become a sustainable practice. A culture that supports the sharing and critiquing of ideas and designs, and employs students' feedback helps to develop teachers' confidence in using new tools and approaches, which leads to greater understanding of learning (Figure 7).

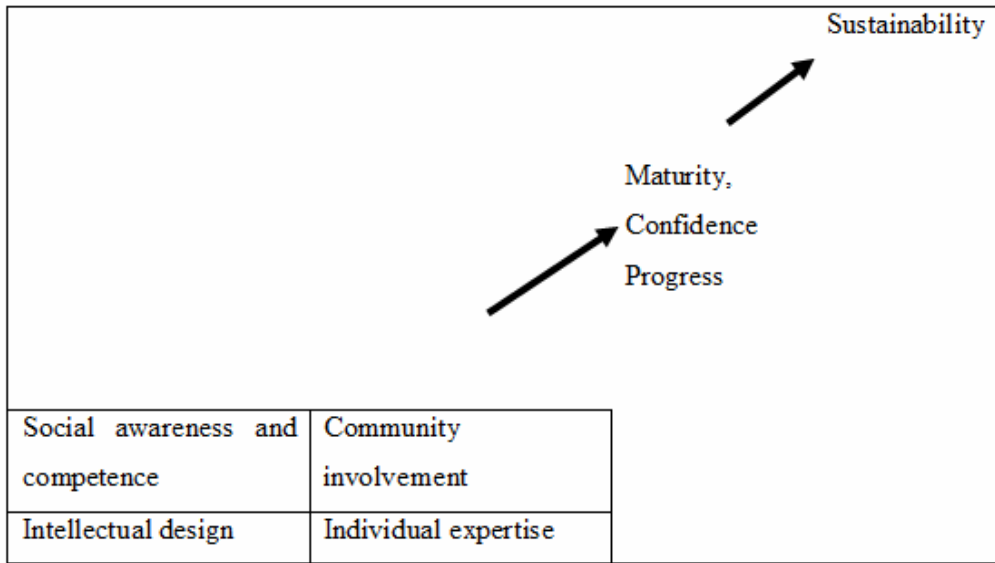


Figure 7. Conditions for sustainable practice.

9. Conclusion

To successfully embed the use of learning design, one should not assume that pre-existing communities of practitioners will automatically adopt learning design tools. However, working in a subject area that already supports cooperative relationships is a considerable advantage in managing the cultural change required. The introduction of new learning tools and approaches has to be seen to benefit both learners and teachers. From discussion, teachers reported that LAMS can improve thinking and planning skills; any system is more likely to be adopted if it fits the way practitioners normally plan for learning, whether these are whole courses derived from existing schemes of work or single lessons. In both cases a critical factor is locating appropriate activities within a logical sequence for students to perform in order to meet identified outcomes. Designs for individual sessions naturally lead onto planning longer-term designs.

The use of LAMS, and the subsequent discussions about its deployment, helped to improve teachers' ICT skills, supported experimentation and inspired innovation but teachers need training to use the tool competently, and time and support in order to feel confident to create and deliver lessons using the software. Moreover, providing support for understanding the concept of learning design, as well as what it means to be a learner before understanding how to use the authoring interface were regarded as important underpinning processes. Further investigation is needed to understand the conditions for reusing and repurposing

others' LAMS designs and bring about the same natural processes that currently support the sharing of resources.

The teachers involved in this pilot fully endorsed its widespread use in the ESOL Department and in other departments within the college for the benefit of other practitioners and learners. They are particularly keen to trial branching which is available in LAMS 2.1 as this would allow teachers to provide differentiated work to cater for stronger and weaker learners in their groups. LAMS was generally liked by the ESOL teachers and learners in the LAMS pilot study and the evidence suggests that it can be used with all levels of learners as part of their classroom experience from E1 (beginners) to L2 (advanced).

However, the pilot was small. Results depend upon a variety of factors of which only some can be replicated - the cultural dimension of the organisation will vary. The development of an organisational culture that articulates the development of learning design in its vision requires particular leadership and top down support for technical development as well as being driven through communities of practice from the bottom up. Sponsorship from senior management is essential. Support needs to be provided throughout the adoption period of learning technologies and their use with learners, especially as existing tools are upgraded and new tools introduced. The teachers in this pilot considered that LAMS is a tool which is effective for creating, delivering and enhancing student-centred ESOL lessons.

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