# Insight Report: Contexts of use of Learning Design Support Tools

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For

## The Learning Design Support Environment Project

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# 1 Executive Summary

The **aim of the study** was to provide an external perspective on the extent to which the LDSE project had proved its concept. The study thus set out to review:

- Whether a learning design support tool for teachers could support collaborative and sustainable development of innovative and effective applications of learning technologies.
- And if so, under what circumstances.

**The approach** used was an adapted version of scenario planning, and started with interviews with members of the LDSE team. The transcripts from these were used to develop an online questionnaire that asked respondents to rate key scenarios and uses of learning design support tools, the value of a range of features for different stakeholders, and likely influences on uptake for different stakeholders.

**Respondents to the questionnaire** were mainly from Higher Education, although Adult Education, Corporate learning and development, Further Education, Schools, and Work-based learning were represented. There was a wide range of professional roles, though more than a quarter were learning technologists. Over half of respondents had no prior knowledge of the LDSE project. The results of the study are thus less about whether the LDSE project had proved its concept and more about whether the concept of learning design support tools was considered feasible in a wider sense. `

IDENTIFYING THE MOST FAVOURABLE CONTEXTS OF USE OF LEARNING DESIGN SUPPORT TOOLS.

Nine scenarios, or potential contexts of use, were derived from the interviews and wider discussions with LDSE team members. The scenarios were:

- **Scenario 1:** An Educational Institution is undertaking extensive course redesign, it provides support for a tool, and requires course teams to use it.

- **Scenario 2:** An Educational Institution is undertaking extensive course redesign; staff are made aware of the tool, but no specific support is provided.

- **Scenario 3:** A course team is developing a new course; its members freely decide to use the tool for sharing their designs to aid working together.

- **Scenario 4:** Staff developers deploy the tool in professional development programmes to help teachers use digital technologies more effectively within their teaching.

- **Scenario 5:** A staff development programme offers the tool alongside personal support for improving teachers' design practice.

- **Scenario 6:** Individual teachers turn to the tool for advice and guidance on planning and designing their courses and sessions.

- **Scenario 7:** Individual teachers use the tool to look at the learning designs created by other teachers, in order to get ideas and inspiration for their own.

- **Scenario 8:** Teachers use the tool to share their learning design for a course with learners, to make the curriculum more transparent to learners.

- **Scenario 9:** Teachers use the tool to collaborate with learners in developing the learning design for a course.

Respondents rated the likelihood and value of the range of scenarios. The average ratings for these variables were plotted against each other to help to identify those scenarios or contexts of use that the LDSE and future such projects should focus on.

**The most favourable contexts** in terms of perceived likelihood and value **were Scenarios 4 and 5, where learning design support tools are used in a staff development context**. Indeed, respondents seemed to suggest that for a learning design support tool to be used, staff need to be supported in its use. One respondent stressed that the "*uptake and integration of the tools in staff CPD would be crucial to any wider take up*". Thus, if the focus of future projects is on optimising uptake, they should concentrate on how tools can be used effectively in the staff development context.

Some respondents had expressed doubts about whether there is a culture of sharing ideas and resources. Nonetheless, Scenarios 3 and 7, both of which involve sharing of learning designs were also rated relatively highly.

**Respondents saw some value in teachers using learning design support tools with learners**, Scenarios 8 and 9, **but the likelihood** of this happening was **considered to be low**. This suggests that future projects either should not focus developments around this context, or should consider alternatives, for example, developing outputs from learning design support tools that are tailored towards learners. Indeed, one respondent suggested "*the end result is of more use to students than being involved in the design process*" and went on to say, "*feedback should be the route through which students are involved*

Generally, there was a sense that the use of learning design support tools is still aspirational, as highlighted by the comment, "*responses reflect the current environment, rather than what we want it to be*".

THE VALUE OF DIFFERENT FEATURES OF LEARNING DESIGN SUPPORT TOOLS TO DIFFERENT STAKEHOLDERS.

From the range of features, '**A learning design tool that is informed by models of what makes a good learning experience**' was unique in being seen as having considerable value across all stakeholder groups. The groups were Learners, Teaching staff, Departments, and Institutions.

In relation to the value of particular features, respondents did not differentiate between Institutions and Departments. The **ability to calculate the costs of course delivery** and to **calculate the effect of changing class sizes** were seen as having **considerable value for Institutions and Departments**. The potential of using learning design support tools to **produce accurate and detailed course documentation** that might also be **exported into validation documents** was also seen as **valuable for Institutions and Departments**, **as well as Teaching staff**. Features relating to **experimenting with or sharing different learning designs** were seen as **valuable for Teaching staff**, but less so for Institutions and Departments.

FUTURE INFLUENCES ON THE UPTAKE OF LEARNING DESIGN SUPPORT TOOLS.

**Recommendations from peers** were clearly seen as the strongest influence on whether or not individual teachers might adopt learning design support tools in future. Whereas, for

**Institutions** the strongest **influence related more to the functionality of such tools** and whether learning designs from the tool could be exported into other institutional systems, such as Virtual Learning Environments (VLEs).

The need for '**evidence**' was picked up on consistently in respondents' open comments. For Institutions, it was felt there was a need for "*Evidence that the tool provided significant benefits e.g. cost savings, time efficiencies*" or "*increased learner engagement*". There was also a request for costs to be identified "*both in terms of the product but also the technical and pedagogical support needed to run/implement its usage*". While for teachers, several respondents suggested that "*evidence of time-saving and improved teaching*" would influence uptake of a learning design support tool.

THE LDSE AND FUTURE LEARNING DESIGN TOOL PROJECTS.

The final section of the questionnaire was devoted to open questions. Respondents were asked what key contribution they felt the LDSE project had made. Responses were grouped into categories, overall suggesting that the LDSE project had:

- Increased awareness of learning design support tools, and of pedagogy.
- Enabled the move from research to practice in the use of learning design tools.
- Provided learning design patterns that have been proven to work.
- Advanced the visualisation of designs.

Respondents were also asked for recommendations of what future projects should address in the development of learning design support tools. Responses were again categorised. With suggestions pertaining to characteristics of learning design support tools, such as usability, 'sharability' and interoperability; others focused on encouraging uptake; while others were more to do with the way or context in which tools might be used.

The LDSE project's key contribution has been "*drawing together some of the best research of the [past] decade into a usable tool*" although "*future projects should 'sell' the point of [learning design support tools] hard*"**.**

# 2 Background

In July 2011, ALT and Inspire Research Ltd embarked on a study to inform an 'insight report' for the Learning Design Support Environment (LDSE) project. This report presents an overview of the findings.

## 2.1 Aim

The aim of the study was to provide an external perspective on the extent to which the LDSE project had proved its concept. The study thus set out to review:

- Whether a learning design support tool for teachers could support collaborative and sustainable development of innovative and effective applications of learning technologies.
- And if so, under what circumstances.

The intention was to prepare an insight report that would be of value to the learning technology communities in Higher and Further Education.

## 2.2 Defining learning design support tools

For the purposes of the study, a learning design support tool was defined as a software application that assists teachers in planning and designing their students' learning (i.e. teachers' "design practice"). It was noted that this could range from individual activities to whole sessions or lessons, to larger units of learning, such as modules or courses. Learning design support tools are also known as pedagogic planning tools.

## 2.3 Identifying potential contexts of use of learning design support tools

The study set about identifying potential contexts or circumstances of use, as well as drivers that could influence uptake and use, by adapting the Scenario Planning technique. While this approach would normally be used face-to-face, the forward-looking nature of scenario planning appeared to match well with the intentions of the insight study. The approach was thus adapted to be undertaken remotely and over a period of time. The process started by interviewing individuals who knew the LDSE project and were conversant with the concept of learning design support tools. Key scenarios, uses, stakeholders, and driving forces were then extracted from the interview transcripts. Reference was also made to a recent paper that described teachers' perspectives of a pedagogic planning tool (Masterman & Manton, 2011)[1].

An online questionnaire was developed using these scenarios. An invitation to take part was sent to a number of mailing lists that addressed learning technology, and learning design, and technology innovation projects. Invitations were also sent to individuals who had worked with the LDSE team on the development of the Learning Designer, a learning design support tools developed by the LDSE Project. Respondents were asked to consider the 'genre' of learning design support tools, but to draw on any experience they had of the Learning Designer.

A fuller overview of the questions and steps used as part of the adapted scenario planning approach is given in Appendix I.

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[1] Masterman, E., & Manton, M. (2011). Teachers' perspectives on digital tools for pedagogic planning and design. *Technology, Pedagogy and Education*, *20*, 227-246.

# 3 Findings

A total of 89 individuals responded to the invitation to take part in the survey. One did not consent to his/her data being used as described in the invitation, and therefore declined to take part. Of the remainder, up to 17 did not respond to the background questions. Thirty-two individuals did not proceed to the 'content' questions. Fifty-three individuals completed the survey in full. A total of 26 requests were made for further information on the outcome of the questionnaire.

## 3.1 Demographic overview of respondents to the online survey

The majority of respondents (n=54) were based in England. There were nine respondents from Europe (including Scotland and Wales) and nine from Australasia. There was one respondent from India and one from the USA. Respondents mainly worked in the Higher Education sector, although more than 20% were from Further Education, see Table A for the full breakdown.

*Table A – The education sector(s) respondents mainly work in (n=76).*

| Answer Options | Response Percent | No. of respondents |
|---|---|---|
| Higher Education | 81.6% | 62 |
| Further Education | 21.1% | 16 |
| Private or corporate learning and development | 13.2% | 10 |
| Adult Education | 11.8% | 9 |
| Work-based learning | 6.6% | 5 |
| Schools | 6.6% | 5 |
| Other | 2.6% | 2 |

The professional roles represented were wider ranging, with learning technologists being the largest group, see Figure 1.

*Figure 1 – Respondents main professional role (n=72).*
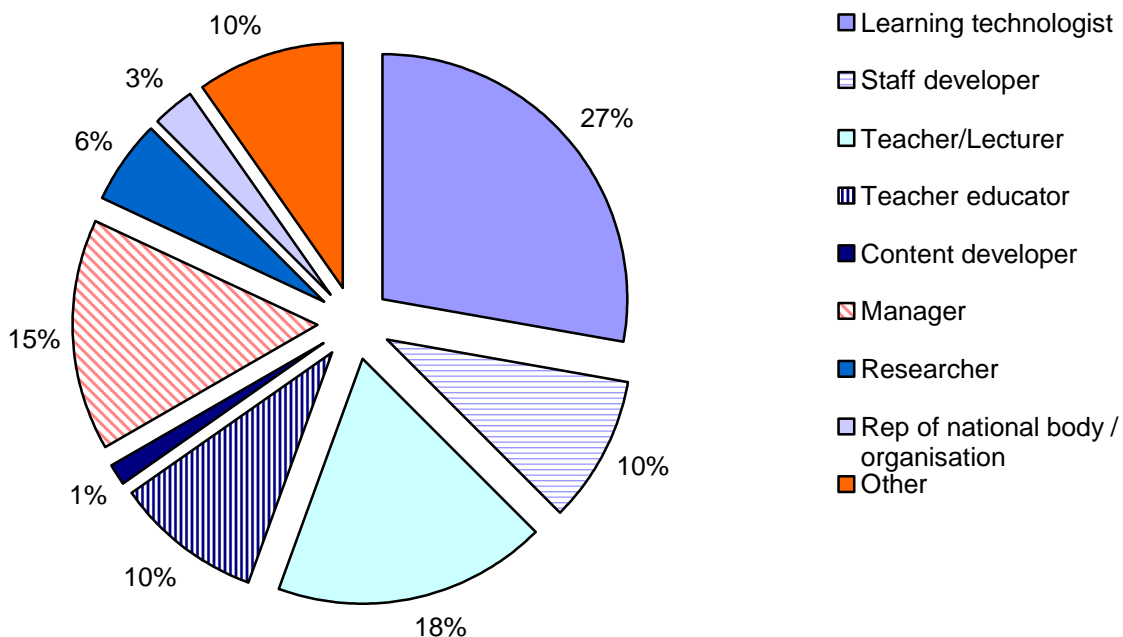
As shown in Table B, over half of respondents had no prior knowledge of the LDSE project. Even though the sample were not fully conversant with the LDSE project, the lists and contacts used to invite responses would suggest that the majority would be able to envisage what a learning design support tool is, and how it might be applied.

*Table B – Respondents prior knowledge of the LDSE project (n=76).*

| Answer Options | Response Percent | No. of respondents |
|---|---|---|
| Does not know anything about the LDSE | 53.9% | 41 |
| Visited the LDSE website | 17.1% | 13 |
| Visited the LDSE website and tried out the Learning Designer | 6.6% | 5 |
| Attended a presentation about the LDSE | 5.3% | 4 |
| Attended a presentation about the LDSE and tried out the Learning Designer | 3.9% | 3 |
| Used the Learning Designer, but not taken part in the research or evaluation phases of the project | 2.6% | 2 |
| Taken part in the research and/or evaluation phases of the LDSE project | 7.9% | 6 |
| Member of the LDSE project team | 2.6% | 2 |

## 3.2 Potential contexts of use of learning design support tools

### 3.2.1 Likelihood of use of learning design support tools in different scenarios

Survey respondents were presented with a range of scenarios in which learning design support tools might be used. The scenarios were:

- **Scenario 1:** An Educational Institution is undertaking extensive course redesign, it provides support for a tool, and requires course teams to use it.

- **Scenario 2:** An Educational Institution is undertaking extensive course redesign; staff are made aware of the tool, but no specific support is provided.

- **Scenario 3:** A course team is developing a new course; its members freely decide to use the tool for sharing their designs to aid working together.

- **Scenario 4:** Staff developers deploy the tool in professional development programmes to help teachers use digital technologies more effectively within their teaching.

- **Scenario 5:** A staff development programme offers the tool alongside personal support for improving teachers' design practice.

- **Scenario 6:** Individual teachers turn to the tool for advice and guidance on planning and designing their courses and sessions.

- **Scenario 7:** Individual teachers use the tool to look at the learning designs created by other teachers, in order to get ideas and inspiration for their own.

- **Scenario 8:** Teachers use the tool to share their learning design for a course with learners, to make the curriculum more transparent to learners.

- **Scenario 9:** Teachers use the tool to collaborate with learners in developing the learning design for a course.

Respondents were asked to consider the institution in which they work, and indicate the likelihood of each scenario. Figure 2 shows that Scenarios 4 and 5 were widely considered as likely contexts for using a learning design support tool, i.e. within a staff development setting.

At the opposite extreme, Scenarios 8 and 9, in which teachers used the tools with learners, were considered unlikely. Although some respondents thought teachers might share learning designs with learners (Scenario 8).

***Figure 2 – Respondents views on the likelihood of a range of scenarios involving the use of a learning design support tool (n=56).*** *Each spoke shows number of respondents.*
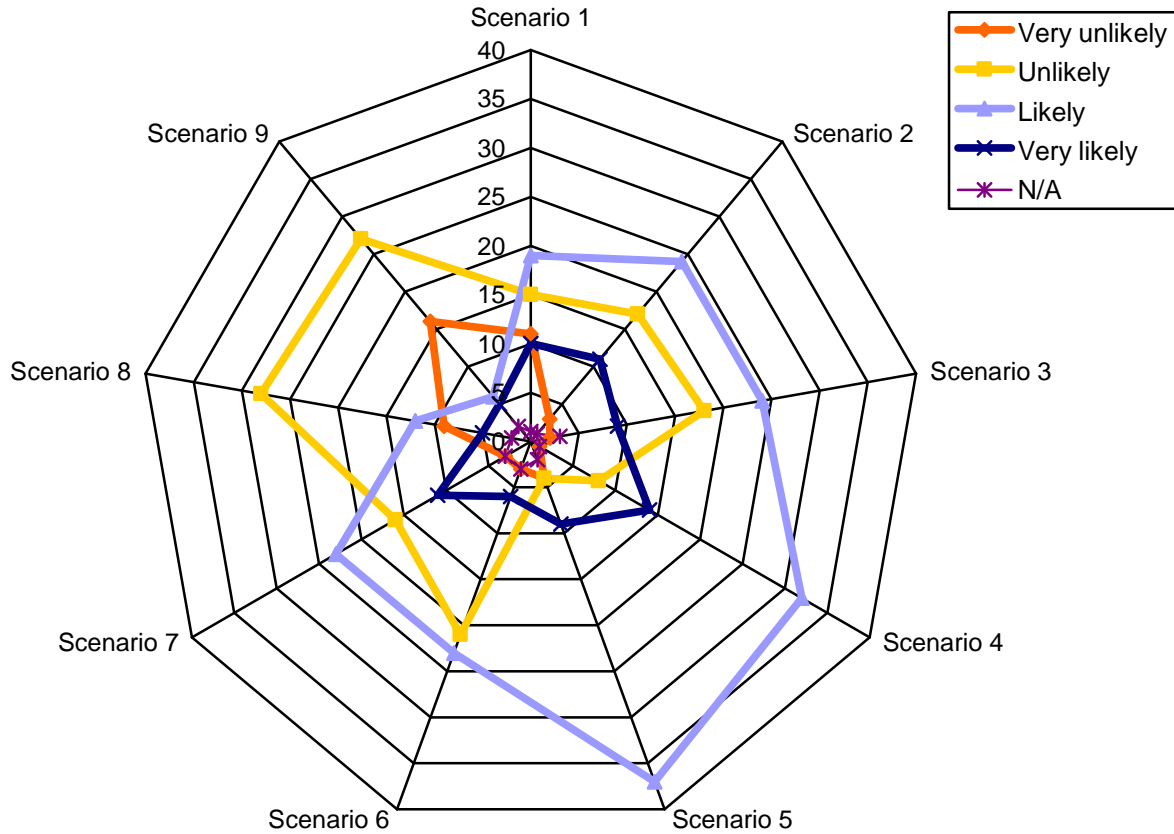


To help further identify the scenarios deemed most likely by respondents, the average of the ratings for each scenario was calculated and ranked, as show in Table C. (The original question ratings were 1 - Very unlikely, 2 – Unlikely, 3 – Likely, 4 – Very likely.)

***Table C – Averaged and ranked responses for likelihood of a range of scenarios involving the use of a learning design support tool (n=56).***

| Abbreviated Scenario Description | Average Rating |
|---|---|
| Scenario 4: Staff developers use in Prof Dev Progs to enhance digital tech use in teaching | 3.07 |
| Scenario 5: Staff developers support use iot improve design practice | 2.94 |
| Scenario 7: Indiv teachers use to access others' learning designs | 2.79 |
| Scenario 2: Institution raises awareness of tool, but provides no support | 2.78 |
| Scenario 3: Used within a course team to aid sharing designs | 2.75 |
| Scenario 6: Indiv teachers use for advice on learning design | 2.60 |
| Scenario 1: Institution provides support for tool, and requires it to be used | 2.51 |
| Scenario 8: Teachers use to share designs with learners to open up curriculum | 2.24 |
| Scenario 9: Teachers use to collaborate on course design with learners | 2.00 |

Legend:   Yellow      >=2.50 & <3.20
          Amber       >1.80 & <2.50

This suggests that overall the respondents were generally positive about the potential of learning design support tools being used in a range of scenarios. This may be a reflection of the population from which respondents were drawn, i.e. individuals who were members of learning technology related mailing lists and/or involved in technology innovation projects. Such individuals seem likely to be capable of envisaging how such tools might be used.

Use within the context of a staff development programme, or with staff development support, clearly stand out as the most likely (Scenarios 4 and 5). The possibility of bias being introduced due to the proportion within the sample of staff developers, and individuals likely to have a staff development remit, was then checked. The sample of respondents was not considered large enough to warrant analysis of variance according to professional role. However, filters were applied to the data according to professional role, and the pattern of scores was reviewed. This showed no general bias.

Ten individuals gave substantive comments on their responses to this question. One noted that given the broad ranging nature of institutions "*a variety of scenarios is possible*" and "*different percentages of individual teachers would engage*". For the scenarios about individual teachers (8&9) two respondents felt that "*only certain teachers would actually use a learning design tool for the activities mentioned. Most would not*". Interestingly, one highlighted the supporting structures required, suggesting that some teachers would use the tools "*because they are technologically adept, have been to professional development, etc.*" The importance of educational staff developers was further noted by three respondents, with the suggestion that the "*uptake and integration of the tools in staff CPD would be crucial to any wider take up*". In addition, it was recognised that the "*culture of working in hidden silos*" would have to be overcome before staff "*use a tool to share ideas and pool design resources*". Other precursors to using such a tool included staff being "*aware of its existence, that it was simple to use and that there were examples to show how effective it was*".

### 3.2.2   Value of using learning design support tools in different scenarios
Respondents were then asked whether using a learning design support tool would *be of value* in the same set of scenarios as described above (Section 3.2.1).

Figure 3 shows that the majority of respondents agreed that learning design support tools could be of value across the range of settings. Scenario 2, where an educational institution is undertaking extensive course redesign but staff receive no specific support for using a learning design support tool, was most disagreed with. This reflects earlier comments about support structures and the role of educational developers. Essentially, respondents appear to suggest that for a learning design support tool to be of value, staff need to be supported in its use. Indeed, four respondents highlighted this in their comments, suggesting that "*centrally provided resources without support are little used or fall into disuse*" and that it would be "*unlikely [that] a teacher would use it 'off the shelf'*". One took this further adding that without "*a strong incentive to use the tool, it may not have much effect*".

While there was less variation across the scenarios than in Figure 2, some questioned the value of using a learning design support tool for Scenarios 8 and 9, in which teachers used the tools with learners. One respondent noted "*the end result is of more use to students than being involved in the design process*" and went on to say "*feedback should be the route through which students are involved*". Further, some of the scenarios would be "*dependent on how far an institution delegates autonomy in course design to its teaching staff and … how those staff choose to work*".

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*Figure 3 – Respondents views on the value of using learning design support tools in a range of scenarios (n=56).*
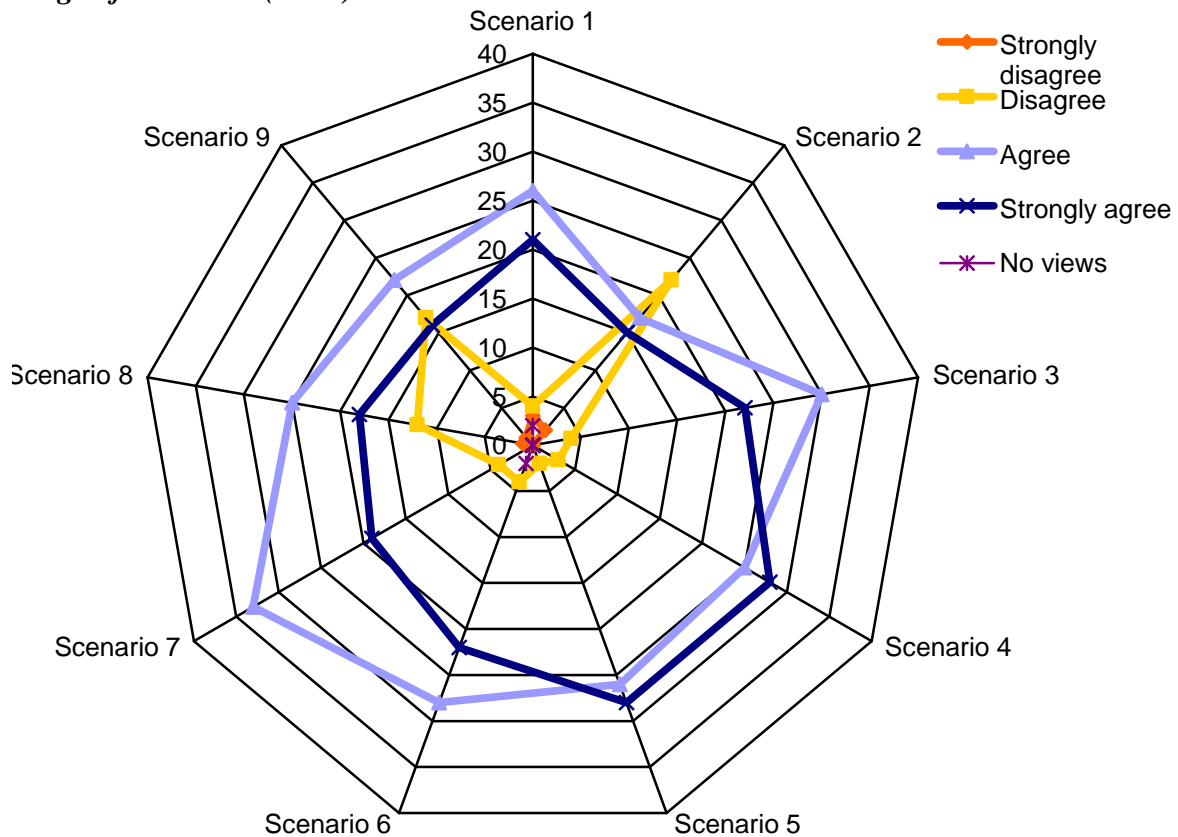


Finally, in the qualitative responses to this and the previous question, there was a sense that the use of such tools is still aspirational, with comments that "*responses reflect the current environment, rather than what we want it to be*" and "*I agree it would be of value, but whether it would be used is another question*".

Again the average of the rating for each scenario was calculated and ranked, see Table D. (The original question ratings were 1 – Strongly disagree, 2 – Disagree, 3 – Agree, 4 – Strongly agree.)

*Table D – Averaged and ranked responses re the value of using learning design support tools in a range of scenarios (n=56).*

| Abbreviated Scenario Description | Average Rating |
|---|---|
| Scenario 5: Staff developers support use iot improve design practice | 3.46 |
| Scenario 4: Staff developers use in Prof Dev Progs to enhance digital tech use in teaching | 3.45 |
| Scenario 6: Indiv teachers use for advice on learning design | 3.33 |
| Scenario 3: Used within a course team to aid sharing designs | 3.32 |
| Scenario 7: Indiv teachers use to access others' learning designs | 3.27 |
| Scenario 1: Institution provides support for tool, and requires it to be used | 3.20 |
| Scenario 8: Teachers use to share designs with learners to open up curriculum | 3.07 |
| Scenario 9: Teachers use to collaborate on course design with learners | 2.95 |
| Scenario 2: Institution raises awareness of tool, but provides no support | 2.80 |

| Legend: | Green | >= 3.20 |
|---|---|---|
| | Yellow | >=2.50 & <3.20 |

Table D shows generally strong agreement about the value of using learning design support tools across the range of scenarios. Indeed, the average ratings are all higher than the equivalent rating for likelihood shown in Table C. This may be a reflection of the relatively early stage of development and uptake of such tools.

### 3.2.3  Identifying the most favourable contexts of use

One of the intentions of asking respondents to consider both the likelihood and value of a range of potential scenarios was to enable mapping of these variables. This could then be used to identify those scenarios or contexts of use that the LDSE and future such projects should focus on. Figure 4 shows the average ratings for value and likelihood plotted on an X-Y diagram.

The rating used in the questionnaire was a forced-choice, i.e. no 'neutral' option was available. The two axes in Figure 4 have thus been set to cross at 2.50, the mid-point of the rating. As the figure plots averages of the ratings, this could essentially be seen as the point that tips between unlikely and likely, or disagree and agree.

*Figure 4 – Comparison of average ratings of perceived likelihood & value of using learning design support tools in a range of potential scenarios (n=56).*
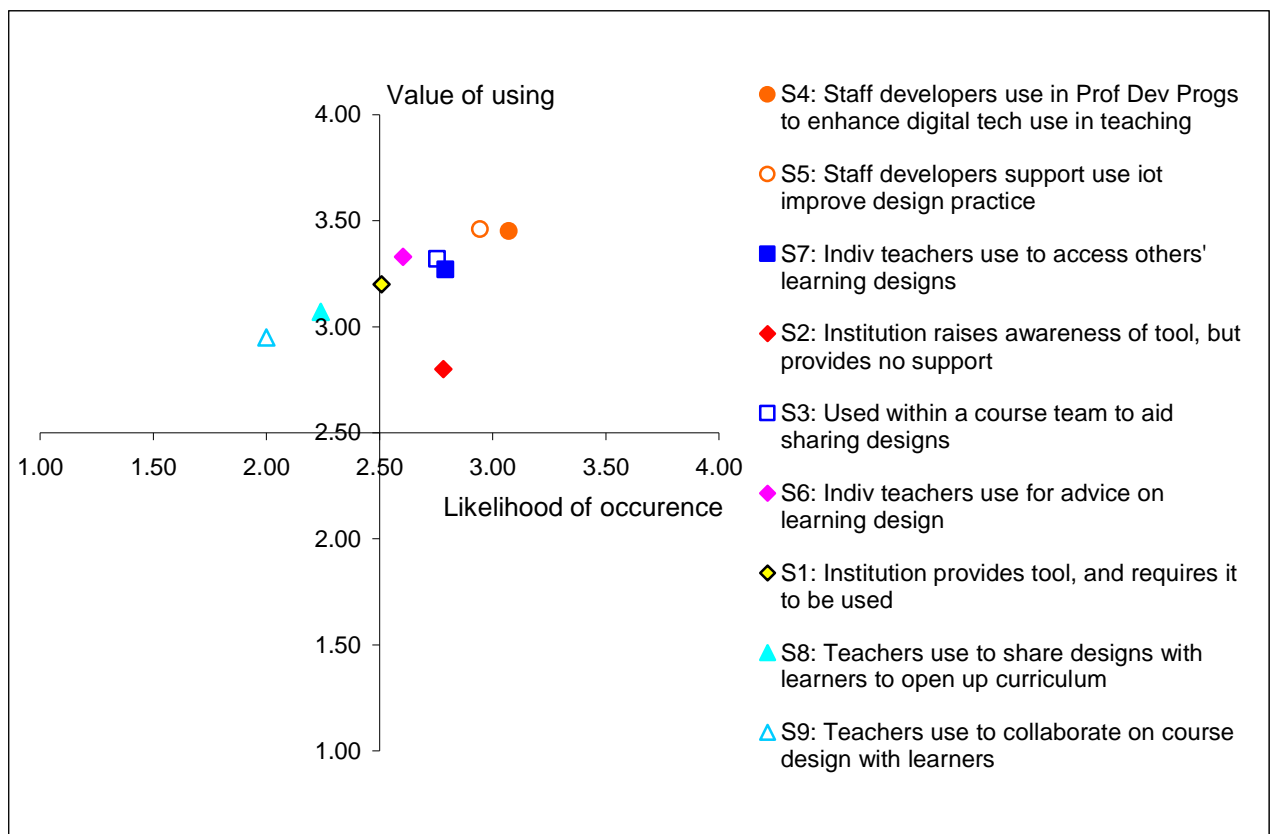


The legend lists scenarios according to their average likelihood rating.

The different scenarios have been sorted into three pairs and three independents. Unsurprisingly, the most favourable pair is Scenarios 4 and 5, where learning design support tools are used in a staff development context. If the focus of future projects is on optimising uptake, they should concentrate on how tools can be used effectively in the staff development context.

While some of the qualitative responses included doubts about whether there is a culture of sharing ideas and resources, the next pair of Scenarios, 7 and 3, both feature sharing of learning designs. In the first, teachers look for ideas from others' learning designs, and in the other, sharing helps a course team in developing a new course. Thus while the likelihood was seen as lower than the first pair, there is clearly still perceived value to be gained from enabling sharing of learning designs.

The 'independent' Scenarios 1 and 2 both involve Institutions. These scenarios are essentially opposites in terms of the provision of support and the imposition of a particular learning design support tool. Figure 4 shows that while Scenario 2 is deemed more likely, it is also considered to be less valuable for Institutions to raise awareness of a particular tool without providing support. Whereas, Scenario 1, where support is provided but the tool is imposed, is deemed less likely but more valuable. The qualitative comments would suggest that the provision of support is the important element in Scenario 1.

The findings for Scenario 6 show that respondents felt it would be valuable for individual teachers to use such tools to access advice on designing courses, although the likelihood of this occurring was considered relatively low. The occurrence of this scenario might be increased if it were encouraged following the introduction of a learning design support tool in a staff development context.

Figure 4 also demonstrates that while respondents saw value in teachers using such tools with learners, the likelihood of this happening was seen as low. This suggests that future projects either should not focus developments around this context, or should consider alternatives for example, developing outputs from learning design support tools that are tailored towards learners.

## 3.3 Value of learning design support tools to different stakeholders

Respondents were also asked to rate the value of a range of features or potential uses of a learning design support tool, for Institutions, Departments, Teaching Staff and Learners. The results are shown in Figures 5a, 5b, 5c & 5d, respectively.

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*Figure 5a – Perceived value to INSTITUTIONS of different features or uses of learning design support tools (n=46-50).*

*Figure 5b – Perceived value to DEPARTMENTS of different features or uses of learning design support tools (n=49-50).*
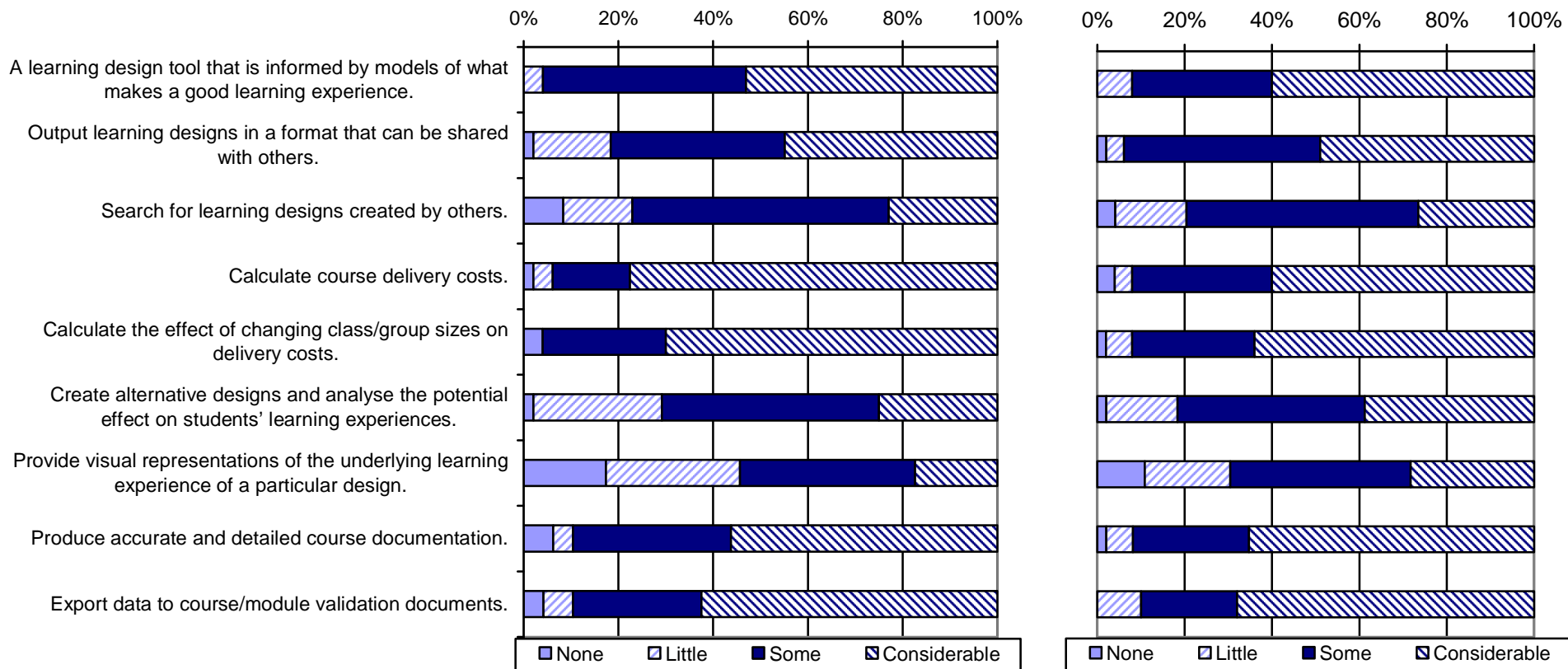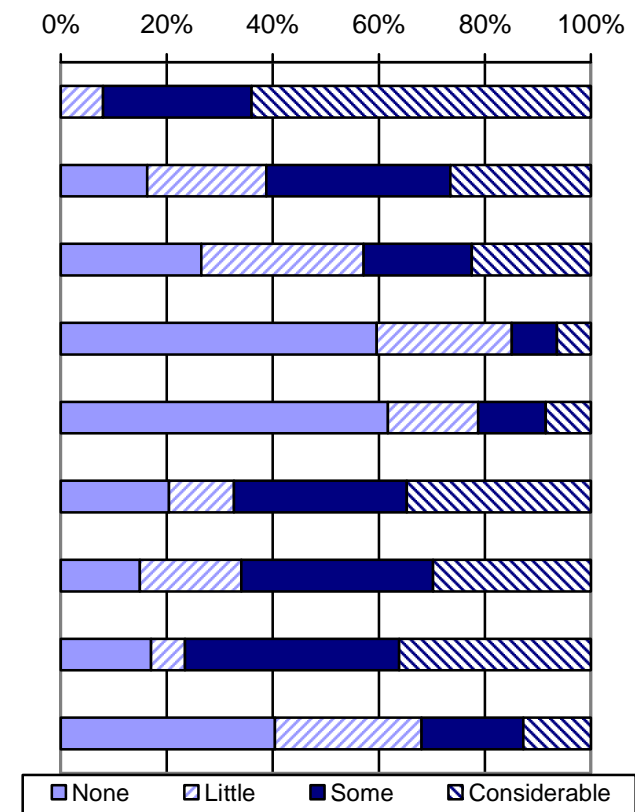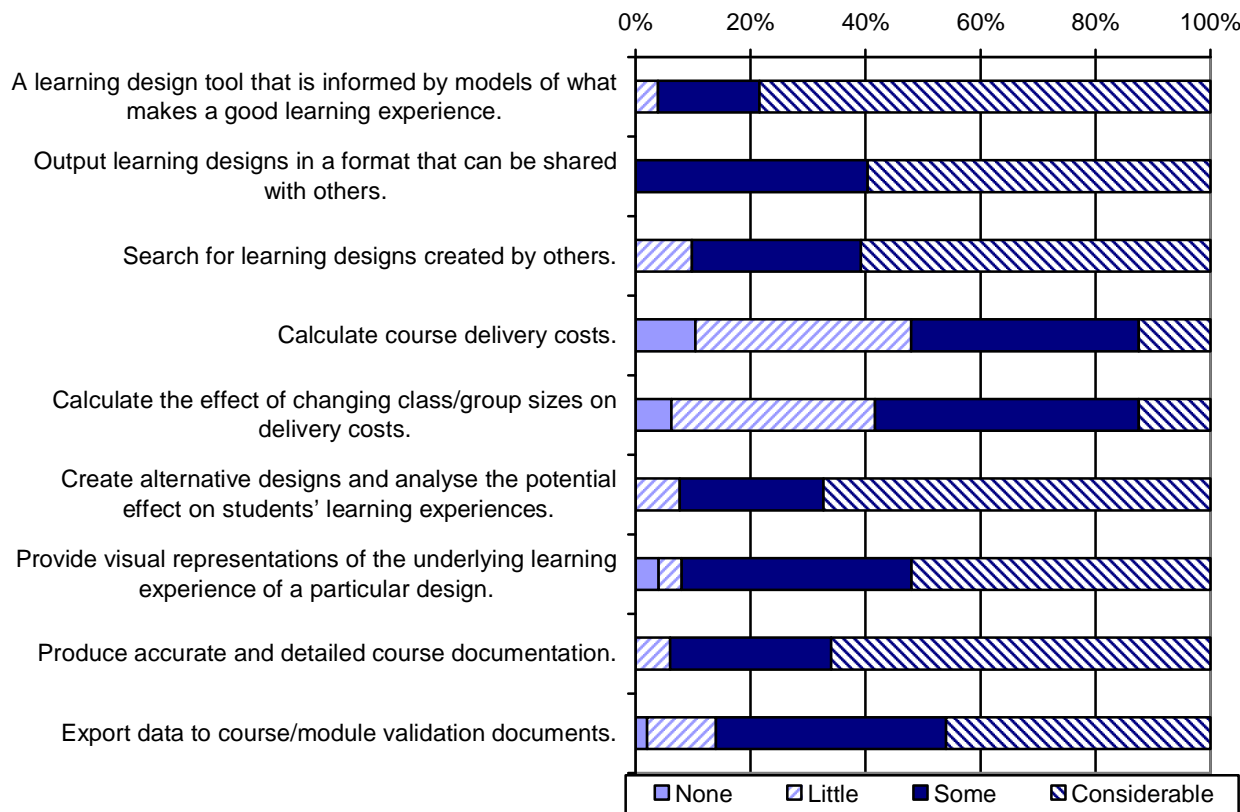
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*Figure 5c – Perceived value to TEACHING STAFF of different features or uses of learning design support tools (n=48-52).*

*Figure 5d – Perceived value to LEARNERS of different features or uses of learning design support tools (n=47-50).*

The similar patterns of response shown in Figures 5a & 5b suggest that respondents did not differentiate between Institutions and Departments, or they consider them to have the same kinds of needs and drivers. Unsurprisingly, the ability to calculate the costs of course delivery and calculate the effect of changing class sizes was seen as having considerable value for Institutions and Departments. The strength of backing for this is perhaps a reflection of the current economic climate. The potential of using learning design support tools to produce accurate and detailed course documentation that might also be fed into validation documents was also seen as valuable for these two stakeholder groups.

For teaching staff, the items relating to calculating delivery costs were considered the two least valuable features. All of the remaining features and uses were seen as valuable for teaching staff. Having access to a learning design tool that is informed by models of what makes a good learning experience was rated most highly.

In contrast, four of the nine features and uses were not considered valuable for learners. One item does, however, stand out as being considered valuable for learners. Again, that a learning design support tool is informed by models of what makes a good learning experience.

The responses to the questions concerning perceived value to different stakeholders were also averaged. The results for all stakeholder groups are shown in Table E, with colour coding as per the legend. The table shows that having 'A learning design tool that is informed by models of what makes a good learning experience' was unique in being seen as having considerable value across all stakeholder groups.

***Table E – Averaged and colour coded responses re the perceived value to different stakeholder groups of different features or uses of learning design support tools (n=46-52).***

| Potential features and uses of learning design support tools | Stakeholder group | | | |
|---|---|---|---|---|
| | Teaching staff | Departments | Institutions | Learners |
| A learning design tool that is informed by models of what makes a good learning experience. | 3.75 | 3.52 | 3.49 | 3.56 |
| Produce accurate and detailed course documentation. | 3.60 | 3.55 | 3.40 | 2.96 |
| Output learning designs in a format that can be shared with others. | 3.60 | 3.41 | 3.24 | 2.71 |
| Create alternative designs and analyse the potential effect on students' learning experiences. | 3.60 | 3.18 | 2.94 | 2.82 |
| Search for learning designs created by others. | 3.51 | 3.02 | 2.92 | 2.39 |
| Provide visual representations of the underlying learning experience of a particular design. | 3.40 | 2.87 | 2.54 | 2.81 |
| Export data to course/module validation documents. | 3.30 | 3.58 | 3.48 | 2.04 |
| Calculate the effect of changing class/group sizes on delivery costs. | 2.65 | 3.54 | 3.62 | 1.68 |
| Calculate course delivery costs. | 2.54 | 3.48 | 3.69 | 1.62 |

Legend:

| | | | |
|---|---|---|---|
| Amber | >1.80 & <2.50 | Green | >= 3.20 |
| Red | <=1.80 | Yellow | >=2.50 & <3.20 |

As seen in Figures 5a & 5b, there is little difference between the perceived value to Departments and Institutions. Departments generally had slightly higher average ratings, except in relation to the calculation of delivery costs.

Overall, what also stands out from Table E is that:
- One feature is seen as valuable across all stakeholders.
- The common 'valuable' features for Teaching staff, Departments and Institutions mainly relate to the administration of curriculum design.
- Features relating to cost calculation are seen as valuable for Departments and Institutions, but not for Teaching staff.
- Features relating to experimenting with or sharing different learning designs are seen as valuable for Teaching staff, but less so for Departments and Institutions.

## 3.4 Future influences on uptake of learning design support tools

The next section of the questionnaire asked respondents to consider the future of learning design support tools, and indicate to what extent a range of factors might influence uptake by Institutions and by individual teachers. Figures 6a shows the perceived influences on Institutions.

*Figure 6a – Perceived influences on the future uptake of learning design support tools by INSTITUTIONS (n=53).*
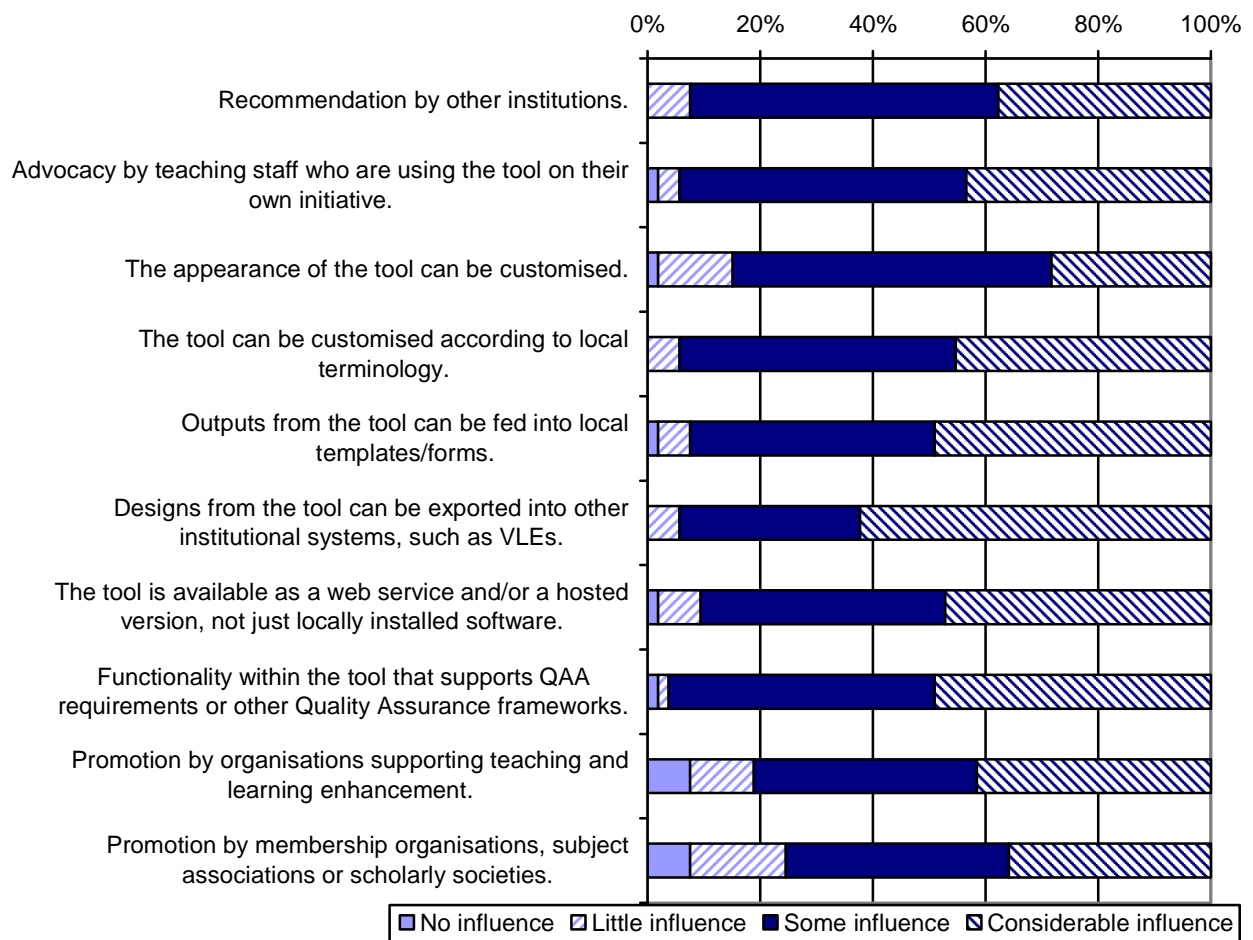
Clearly, the range of suggested influences could all play a role in raising awareness and persuading Institutions to adopt learning design support tools in future. Table F provides averages of the ratings in ranked order. These and Figure 6a suggest that Institutions would be most likely to take on a tool if learning designs from the tool could be exported into other institutional systems, such as Virtual Learning Environments (VLEs).

There is then a group of influences that relate to functionality of the tool, including if QAA requirements or other Quality Assurance frameworks are supported, the tool can be customised according to local terminology, outputs from the tool can be fed into local templates, and if it were available as a web service and/or a hosted version. Another pair of factors perceived as influential relate to the effect of others, namely advocacy by teaching staff and recommendations from other institutions.

*Table F - Averaged and colour coded responses re the extent different factors could influence future uptake of learning design support tools by INSTITUTIONS (n=53).*

| Potential influences on uptake by Institutions | Average Rating |
|---|---|
| Designs from the tool can be exported into other institutional systems, such as VLEs. | 3.57 |
| Functionality within the tool that supports QAA requirements or other Quality Assurance frameworks. | 3.43 |
| The tool can be customised according to local terminology. | 3.40 |
| Outputs from the tool can be fed into local templates/forms. | 3.40 |
| Advocacy by teaching staff who are using the tool on their own initiative. | 3.36 |
| The tool is available as a web service and/or a hosted version, not just locally installed software. | 3.36 |
| Recommendation by other institutions. | 3.30 |
| Promotion or recommendation by organisations that support teaching and learning enhancement, such as the JISC, HE Academy or Learning and Skills Improvement Service. | 3.15 |
| The appearance of the tool can be customised. | 3.11 |
| Promotion or recommendation by membership organisations, such as ALT, subject associations, or professional or scholarly societies. | 3.04 |

Legend:  Green      >= 3.20
         Yellow     >=2.50 & <3.20

An aspect that was not directly covered in the questionnaire related to 'evidence'. The open responses to this question leaned strongly towards this, highlighting the influence of "*Evidence that the tool provided significant benefits e.g. cost savings, time efficiencies*" or "*increased learner engagement*" on Institutional uptake. Indeed, the need for evidence was highlighted in five out of 11 qualitative responses. Another respondent noted the need to identify costs "*both in terms of the product but also the technical and pedagogical support needed to run/implement its usage*". This was phrased more bluntly by one respondent who suggested "*the question usually is 'Is it free?' followed by 'Can we brand it in our colours?'*".

The value of raising the profile of learning design support tools at conferences was noted in two responses. Finally, it was suggested that "*open source code release so others can build and share*" could influence uptake.

Figures 6b shows respondents views on the extent that a range of factors might influence uptake by individual teachers.

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*Figure 6b – Perceived influences on the future uptake of learning design support tools by INDIVIDUAL TEACHERS (n=53).*
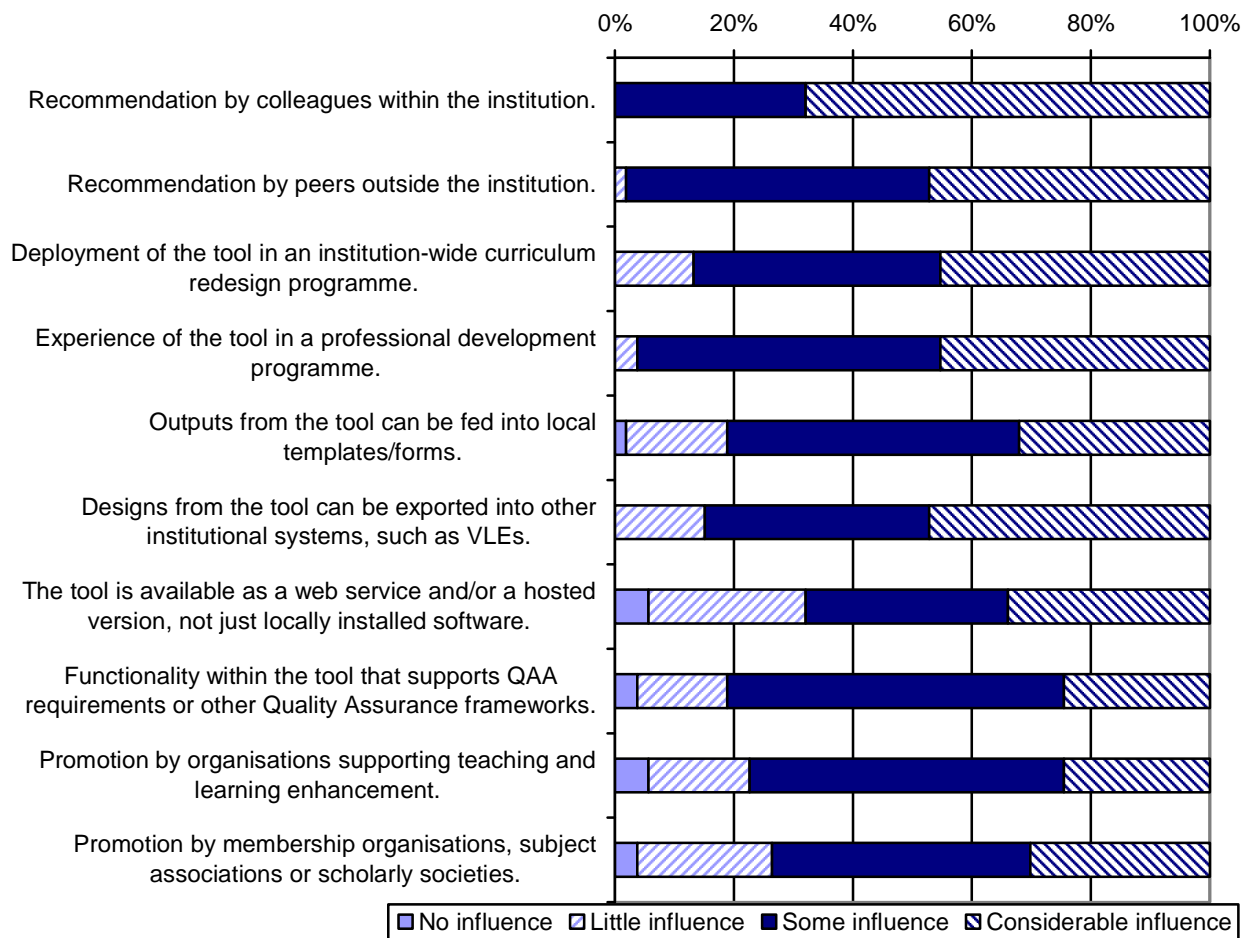


Recommendation by colleagues within their own institution was by far the strongest perceived influence on whether or not individual teachers might adopt learning design support tools in future. This is clear both in Figure 6b, and in the average ratings shown in Table G. Recommendation by peers from outside their institution was also scored highly.

There is then a pair of influences that relate to encountering the tool either in a professional development programme or if their institution deployed it as part of a curriculum redesign programme. Being able to export designs from the tool into other institutional systems was also influential, though it was not considered as important as it had been for institutions.

The influence of "*evidence of time-saving and improved teaching*" was again highlighted in the open responses, this time by three respondents. Suggestions of how individual teachers might be made aware of such tools were also noted, for example, by "*seeing it demonstrated in relation to the specific discipline of the potential user at an L&T conference or as part of a departmental Away Day on learning design*"; or having contact "*with various organisations*".

*Table G - Averaged and colour coded responses re the extent factors could influence future uptake of learning design support tools by INDIVIDUAL TEACHERS (n=53).*

| Potential influences on uptake by Individual Teachers | Average Rating |
|---|---|
| Recommendation by colleagues within the institution. | 3.68 |
| Recommendation by peers outside the institution. | 3.45 |
| Experience of the tool in a professional development programme. | 3.42 |
| Deployment of the tool in an institution-wide curriculum redesign programme. | 3.32 |
| Designs from the tool can be exported into other institutional systems, such as VLEs. | 3.32 |
| Outputs from the tool can be fed into local templates/forms. | 3.11 |
| Functionality within the tool that supports QAA requirements or other Quality Assurance frameworks. | 3.02 |
| Promotion or recommendation by membership organisations, such as ALT, subject associations, or professional or scholarly societies. | 3.00 |
| The tool is available as a web service and/or a hosted version, not just locally installed software. | 2.96 |
| Promotion or recommendation by organisations that support teaching and learning enhancement, such as JISC, the HE Academy or Learning & Skills Improvement Service. | 2.96 |

| Legend: | Green | >= 3.20 |
|---|---|---|
| | Yellow | >=2.50 & <3.20 |

Recommendations from peers were clearly seen as the strongest influence on individual teachers. With the reminder from one respondent that this would depend on "*whether individual teachers will receive support from the institution or at the very least have barriers removed*". Whereas, for institutions the strongest influence related more to the functionality of the tool and whether it would integrate with existing systems.

As seen in Section 3.3, it seems likely that Institutions (or Departments) and Teaching staff will derive value from different features of learning design support tools. Figures 6a & 6b suggest that there are also differences in what would influence the two groups to make use of these tools. This infers that future projects will need to develop at least two different strategies for awareness raising and encouraging uptake.

## 3.5  The LDSE and future learning design tool projects

### 3.5.1  Contribution of the LDSE project

As the study was intended to inform the LDSE project team, the questionnaire also asked respondents (who had some knowledge of the project) what key contribution they felt the LDSE project had made. Given that many respondents had no prior knowledge of the LDSE project, this question really just provides a rough indicator. The responses are grouped into five categories. (Some of responses listed are excerpts, but all are direct quotes, aside from spelling corrections.)

Increased awareness of learning design tools, and of pedagogy
- It has increased awareness that such tools exist.
- The knowledge of such tools and option to experiment with them is potentially very valuable.
- In terms of actual technology, probably very little. In terms of opening the discussion about collaborative learning for course development, lowering the threshold for teaching staff to use IT and technology in their learning designs and for developing communities of practice across disciplinary boundaries - a bit more.

- The key point is it attempts to link to pedagogy and facilitate this process for users. What's important is that users can engage with the tool without having a good working knowledge of their pedagogy. In this context, the tool could be used to raise awareness of pedagogical theory.

Moving from research to practice
- Shifting the focus from research to practice with using learning design tools.
- Drawing together some of the best research of the [past] decade into a usable tool.
- We now have a demonstrable framework to use when discussing these issues in other institutions.

Provision of patterns that have been proven to work
- It provides examples and patterns of activities for learning that have been proven to work.
- The link to existing patterns and the modelling functionality.
- Integration of learning patterns in an accessible format.

Visualisation of designs
- It has allowed for another (considerable) advance in the visualisation of designs.

Concerning the Learning Designer
- The tool is user-friendly and not intimidating. I think it would be best deployed with new staff in professional development courses. I find it hard to understand why more experienced staff might use it - I can see why it is useful to share and generalise learning designs, but I just don't think that established staff would be bothered with it (and time would be a big factor). However, I do think it encourages new staff to think about good learning design, and encourages them to collaborate and learn from others, and in this respect, the LDSE tool could be an effective training tool.

### 3.5.2 Suggestions for future Learning Design Support Tool projects
The questionnaire then asked respondents what key aspect of the development of learning design support tools future projects should address. Responses have again been categorised. Some of the categories relate to characteristics of learning design support tools, such as usability, 'sharability' and interoperability; some focus on encouraging uptake; others are more to do with the way or context in which tools might be used.

Usability
- Usability/robustness for complex scenarios - you shouldn't have to discard your plan for a one and half hour session because it has become impossible to modify into the correct order due to you adding to it and refining it during the building process!
- Usability by a wide range of academic staff.
- Needs to be simple and customisable easily. Sacrifice complexity and embrace compromise.

'Sharability'
- Use of taxonomies and metadata for enhancing information discovery.
- Sharing learning designs.

Interoperability
- Interoperability between design systems such as the LDSE and VLEs - the export to moodle button.
- Relationship with open source courseware such as Sakai & Moodle.

Marketing and encouraging uptake
- Future projects should 'sell' the point of them hard. Academics are busy and need to be convinced how this kind of tool will benefit them. I attended a LDSE workshop and liked the tool, could see its benefits for encouraging good practice - but I still left doubting that anyone would actually use it in practice.
- In my experience, individuals are easily turned into champions if they can see a personal, individual benefit. Future work could usefully focus on broadening that into institutional championing, so tackling this from the ground up AND the top down. Too many great tools and ideas are stifled when people try to share them - what are the conflicts, barriers to sharing this expertise?
- Embedding in Professional Development courses rather than for stand alone use.

Team working
- I would like to see such tools address some aspects of working with teams - e.g. identifying skills etc needed to instantiate designs.
- I worry that, after all the effort that has gone into the tool, not enough is done to facilitate its use. Ideally, you would want course teams to work together using the tool.

Use in other contexts
- Use in small work based learning environments.
- To extend to less UK-centric use. To work beyond the course (unit) level but at the program (degree course) level.

Quality
- Integration of 'quality' indicators for particular contexts.

There were also comments that suggested some individuals felt the full value of such tools was either some way off, or else they felt the concept was not sound.
- I've used Phoebe and the Learning Designer and I'm always inspired by looking at the patterns and examples available. I usually end up modifying an existing pattern, but I do wonder whether its worth it when I don't have to show that I've done any planning … I can do it equally well really on a piece of paper, which is a lot quicker than dealing with recalcitrant drag and drop technology.
- Subject specialists know about their subject and how learners can develop an understanding and apply this knowledge and no one "model" necessarily works above any others so it is important for staff to be aware of the range of models and ways of developing learning materials and learning scenarios. Although these may fit into learning design support tools … There is a danger that institutional implementation leads to conformity rather than creativity in learning design.
- Move away from a template-based, gap-filling approach. The perception is that such approaches trivialise the serious matter of pedagogical design.
- Would I use an online template to fill gaps and call the resulting page 'my learning design'? No.

# Appendix I – Steps involved in the adapted Scenario Planning approach

**Focus area:** Could a learning design support tool for teachers support the collaborative and sustainable development of innovative and effective applications of learning technologies, and if so under what circumstances?

*Time and scope for analysis*
*1. In this context, could you define or describe* Collaborative development, Sustainable development, Innovative applications of learning technologies, Effective applications of learning technologies.
*2. Over what timescale should the analysis focus?*

*Under what circumstances? - identifying stakeholders & drivers*
*3. Identify major stakeholders*
Who are the major stakeholders in relation to a learning design support tool for teachers supporting collaborative and sustainable development?
How important are these stakeholders?
What influence do these stakeholders have?
*4. Map basic trends and driving forces*
(To attempt to determine the most important factors that will influence the circumstances under which a learning design support tool will be used.)
What basic trends or driving forces could influence the potential of a learning design support tool?
How and why?
*5. Find key uncertainties*
How would you rank the importance of these forces?

*Under what circumstances? - identifying potential scenarios*
*6. Merge linked forces - map using responses to step 5, then merge*
*7. Identify extremes (opposites)*
Are these within the timeframe identified in step 2?
Do the forces lead on to probable scenarios? (Check with responses to step 8)
Is it possible to create probable scenarios when considering the stakeholders?
*8. Define scenarios*
Checking question (for steps 7 & 8) What scenarios would you consider most probable that a learning design support tool for teachers would support collaborative and sustainable development ...?
*9. Narrate the scenarios*

*Under what circumstances? - verifying potential scenarios*
*10. Assess the scenarios*
*11. Identify research needs - where is more info required*