

DigiLit Leicester: 2014 Survey Results



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DigiLit Leicester

Supporting school staff, promoting digital literacy, transforming learning

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Executive Summary

The *DigiLit Leicester* project is a two year collaboration between Leicester City Council, De Montfort University and 23 secondary and SEN schools. Leicester's secondary schools collectively support approximately 20,270 learners each year, the majority of which are between 11 and 16 years old. The project focuses on supporting secondary school teaching and teaching support staff in developing their digital literacy knowledge, skills and practice, and their effective use of digital tools, environments and approaches in their work with learners.

In order to understand what current practice looks like a digital literacy framework was developed in consultation with schools and staff, mapped to classroom practice. This framework defines six key strands of digital literacy for secondary school staff: *Finding, Evaluating and Organising; Creating and Sharing; Assessment and Feedback; Communication, Collaboration and Participation; E-Safety and Online Identity; Technology supported Professional Development* (Fraser *et al*, 2013). Confidence levels within these six strands were assigned to four level descriptors: Entry, Core, Developer or Pioneer.

The *DigiLit Leicester* framework was used to create an online survey, which was carried out in both 2013 and 2014. All staff who support learning in the 23 Leicester schools - senior leadership with a teaching role, teachers, classroom assistants, specialist provision and library staff - were invited to complete the survey. In 2014, a total of 701 people completed the survey; that is 39% of the 1,780 eligible members of staff.

Recommendations for areas of focus and activity in work relating to the use of technology by school staff were developed in line with the strengths and gaps indicated by the 2013 survey findings. These recommendations were used to drive and frame a range of opportunities for staff and schools. Between January 2013 and September 2014, the DigiLit team led on six events and projects, and 21 school-led projects were undertaken.

This report provides a high-level summary of the city-wide findings of the 2014 *DigiLit Leicester* survey, contributing to a clearer understanding of the current digital literacy confidence levels of secondary school staff, providing comparisons against last year's survey findings, and recommendations that the project team will be taking forward within Leicester schools.

Headline Findings and Priority Recommendations for 2014/15

Sharing and promoting Pioneer practice

Fifty-six per cent of staff across the city who participated in the survey, classified their skills and confidence at the Pioneer level in one or more areas.

Pioneer level staff can be characterised as having high levels of confidence across a wide range of tools and approaches for the use of technology to support learning and teaching.

In order to score at Pioneer level, staff are actively supporting their peers – either through the creation of support materials, the design and delivery of training, or the provision of informal support.

Recommendation: Continue to ensure that the work being done by city Pioneers is promoted and shared more widely, as well as providing encouragement, opportunity and recognition to Pioneers who support Entry level colleagues.

Supporting Entry-level staff

Twenty-three per cent of staff across the city who participated in the survey, classified their skills and confidence at Entry-level in one or more areas.

Staff who fall within this level are unlikely to have had many opportunities to experiment or engage with technology in the school context. The Core level in the framework relates to the project's baseline of knowledge, skills and practice in the context of secondary education.

The comparison of data from the 2013 and 2014 surveys demonstrates the DigiLit Leicester project approach and work has had a positive impact over the last year, with the largest area of progression being from staff who previously identified at Core level. Less progress is shown at Entry level, particularly within *Assessment and Feedback* and *Communication, Collaboration and Participation*, indicating that activities which provide greater support and specifically focusing on staff who are interested in beginning to use technology to support their practice is required.

Recommendation: Provide supported opportunities and resources specifically designed for and accessible by Entry level staff, particularly in relation to *Assessment and Feedback* and *Communication, Collaboration and Participation*.

Supporting self-directed staff development

Twenty-one per cent of returning participants noted an increase in their skills and confidence.

Comparison data shows this as characteristically a progression of staff previously rating themselves at Core level. This indicates that the project approach (the framework, reflective survey tool, centrally supported activities linked to strand areas, and support for school based, practitioner led activities), has been particularly successful with respect to supporting staff working at Core levels.

Recommendation: Continue to provide support for strategically framed self-directed staff development projects and activities.

Contextualising e-safety guidance

Staff rate their skills and confidence highest in the area of E-Safety and Online Identity, with 81.8 per cent placing themselves in the Developer and Pioneer levels.

Staff rated their skills and confidence the lowest in *Communication, Collaboration and Participation*, with 38.7 per cent placing themselves at the Entry and Core levels.

This suggests that e-safety education is being managed within a context of restriction and limits on access to certain technologies and digital environments. This approach can be characterised as *protected by restrictions* and, whilst effective, has been identified as potentially limiting to online opportunities, including the development of digital literacy (Helsper et al. 2013).

Recommendation: Continue to support work which supports schools in expanding the safe and effective use of social and collaborative technologies.

Increasing knowledge and use of Open Educational Resources (OERs)

In *Creating and Sharing*, 42.1 per cent of staff rated their skills and confidence within the Entry and Core levels of the framework.

In line with last year, staff comments informed us that they were unfamiliar with Open Educational Resources (OERs), and Open Licencing. The *DigiLit Leicester* Project has a commitment to Open Education and the production of Open Educational Resources, to ensure best value, maximum impact of our work, and support connected and collaborative learning practices. The project is currently working on Entry level materials for staff in this area, as well as guidance for school leaders. This work will support staff across the city in understanding and making use of Open Licencing, and creating and sharing their own Open Educational Resources.

Recommendation: Provide Entry level advice and guidance for school staff in relation to open licences and the discovery, use, development and creation of Open Educational Resources.

Introduction

The *DigiLit Leicester* project is a two year collaboration between Leicester City Council, De Montfort University and 23 of the city's secondary and SEN schools. Digital literacy is increasingly recognised as critical for learners to thrive within digital society (Beetham *et al*, 2009). The project focuses on supporting secondary school teaching and teaching support staff in developing their digital literacy knowledge, skills and practice, and their effective use of digital tools, environments and approaches in their work with learners.

The project has three key objectives:

- To investigate and define digital literacy, in the context of secondary school based practice;
- To identify current school staff confidence levels, and what the strengths and gaps across city schools are, in relation to this definition;
- To support staff in developing their digital literacy skills and knowledge - raising baseline skills and confidence levels across the city, and promoting existing effective and innovative practice.

The project focuses on those members of staff who work with learners; senior leadership with a teaching role, teachers, classroom assistants, specialist provision and library staff. The aim is to support secondary school staff in developing their digital literacy knowledge, skills and confidence so that they may support learners in the responsible and positive use of technology.

The project is run in the context of Leicester City Council's Building Schools for the Future Programme (BSF), in which 23 city secondary and SEN schools are being rebuilt or refurbished by spring 2015. The framework has been designed to support staff both in new and existing buildings. While the project as a whole has been designed to ensure staff have the skills and confidence to take advantage of the new infrastructure, systems and equipment the programme will provide them with, it has also designed to support staff development within schools prior to or during the building process, where there may be significantly less flexibility in the use of and access to technology to support learners.

In consultation with participating schools, a Digital Literacy Framework was developed, linking digital literacy with secondary school practice. This framework defines six key strands of digital literacy for secondary school staff:

- *Finding, Evaluating and Organising;*
- *Creating and Sharing;*
- *Assessment and Feedback;*
- *Communication, Collaboration and Participation;*
- *E-Safety and Online Identity*

- *Technology supported Professional Development.*

Practices within these six strands were assigned to four level descriptors: Entry, Core, Developer or Pioneer. A summary of the initial phase of the project, including definitions of the strands and levels, can be found in the [Initial Project Report](#) (Fraser *et al*, 2013).

An online survey was developed, linked to the framework, designed to support staff in reflecting on their use of technology to support teaching and learning, and to provide individual staff members, schools and the Council with information to inform future planning around professional development.

The survey was first open between April and July 2013, during which time 450 members of teaching and teaching support staff participated: approximately 24 per cent of all eligible staff. More information about this phase of the project, including the survey methodology and findings, can be found in the [2013 Survey Report](#) (Atkins *et al*, 2013).

Recommendations for areas of focus and activity were developed in line with the strengths and gaps indicated by the 2013 survey findings:

- Sharing and promoting Pioneer practice
- Supporting entry-level staff
- Encouraging contextual e-safety guidance
- Increasing knowledge and use of Open Educational Resources (OER)
- Promoting Connected Learning

These recommendations were used to drive and frame a range of opportunities for staff and schools between January 2013 and April 2014. In keeping with the project team's commitment to working in partnership with schools, and to supporting access to opportunity as widely as possible, priorities from 2013 were acted on through central activities, designed and managed by the DigiLit Leicester team, and school led activities, proposed and delivered by the schools.

The project team have taken an iterative approach to their work with the schools, in order to support engagement in a way that best suits the schools and the needs of their communities. During this period, the DigiLit team led on six events and projects, and 21 school-led projects were undertaken. All 23 schools have actively engaged with one or more of the project activities. More information about this phase of activity, including accounts of each project, can be found in the [Project Activities Report](#) (Atkins *et al* 2014).

The content of the *DigiLit Leicester* survey has been released under a Creative Commons license so that others can use and build on it. The survey content is explicitly linked to secondary school practice (for schools and staff working with learners between the ages of 11-18 years old). The framework and approach could

be adapted for staff working with other age groups, with particular groups of learners, or for learners themselves of any age group.

The survey data has been collected from and relates to BSF schools in Leicester. The project team believe that the key areas highlighted through the survey analysis will be of value to educators and educational organisations interested in developing digital literacy. The project team, and schools and staff involved, have also created and openly released a range of resources in relation to these findings, which schools beyond Leicester's BSF cohort can use and develop for their own purposes.

Data Collection


From March to May 2014, eligible staff from the 23 schools in the Leicester BSF Programme were invited to complete the *DigiLit Leicester* survey. The survey was designed to support members of staff who work with learners; senior leadership with a teaching role, teachers, classroom assistants, specialist provision and library staff.

The BSF cohort of schools is diverse. The group includes 15 mainstream schools and eight Special Educational Needs (SEN) and specialist provision schools. The mainstream schools support between 900 and 1570 pupils. Eleven of the mainstream schools support learners who are aged 11 to 16 years old, with four mainstream schools also supporting sixth form learners (typically aged 16 to 18). The eight SEN and specialist provision schools serve a range of learners, from pupils with moderate learning difficulties to learners with severe and multiple disabilities, as well as learners with social, emotional and behavioural difficulties. These schools support between 80 and 160 pupils, with four supporting learners aged 11 to 16 years old, and four supporting learners aged 4 to 19 years old. In total, the schools collectively support approximately 20,270 learners each year.

An online survey was chosen as the most effective data collection method, given the number of staff and schools in the *DigiLit Leicester* project, the geographic spread of schools, project team capacity and calls on school staff time.

The survey opened by asking staff '*How confident do you feel about using technology to support teaching and learning practices?*' and to rate their confidence on a seven point Likert scale (where 1 = Not at all confident and 7 = Extremely confident).

For each of the six key areas, staff were then asked to consider four statements relating to the use of technology in the classroom and to indicate where their current practice was in relation to those statements along a scale (none, some, all). These statements can be found in the first project report (Fraser *et al* 2013). Additionally, free text fields accompanied each set of statements, providing staff with the option of commenting on each section of the survey.




DigiLit
Leicester Framework Online Survey

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Communication, Collaboration and Participation

The **Communication, Collaboration and Participation** strand involves the use of communication technologies, for example email, wikis, blogs and social networking sites, to support learning activities and enhance planning and management practices.

- I can manage my school email account effectively.
- I know how to set up an account with an online service (for example, Skype, Twitter or YouTube).

Previous Answers: **2013** - data not collected

Some

All

- I am able to use technology to communicate and collaborate with my peers, for example; using email; using [track changes](#) in documents.
- I can use web based tools with my learners to support group discussion and collaboration, for example, discussion boards/forums, blogs. I can support my learners to present their group work electronically, for example through a presentation or video.

Previous Answers: **2013** - data not collected

None

Some

All

- I support my learners in using a range of digital and online collaborative tools and approaches for both small and large group planning, organisation and work.
- I understand data protection issues as they relates to using web based environments and services with my learners.
- I am confident in using video conferencing (for example, Skype), social media or social networking sites to support learning and teaching when appropriate.
- I use collaborative, multi user tools to support planning, discussion and resource development, for example, wikis and collaborative document services.

Previous Answers: **2013** - data not collected

None

Some

All


Leicester City Council's Building Schools for the Future programme in partnership with De Montfort University

Figure 1.1 Screenshot of Online Survey - Communication, Collaboration and Participation section

Upon completion, aggregate scores provided staff with feedback on their current practice in each area, defined as Entry, Core, Developer or Pioneer. These levels sit on top of a more granular seven scale score (0-7) linked to the statement options within each survey strand, as shown in the table below.

First Statement		
Some = 0		All = 1
Second, third and forth Statements		
None = 0	Some = 1	All = 2

The scoring is defined as follows: 0-1 = Entry, 2-3 = Core, 4-5 = Developer and 6-7 = Pioneer. Along with the level recorded for each strand, suggestions for areas of professional development are presented. This summary is stored in the participant's account and can be exported as a PDF.




Welcome **Test**

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DigiLit Leicester Framework Online Survey

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Key Resources

Communication, Collaboration and Participation


The **Communication, Collaboration and Participation** strand involves the use of communication technologies, for example email, wikis, blogs and social networking sites, to support learning activities and enhance planning and management practices.


You were identified at **Developer** level

Staff working at this level will be able to make use of a range of devices and environments (for example social media services, blogs, wikis) for basic communication and collaborative activities. They will understand the appropriate use of closed (password protected) and open (viewable to anyone) environments, including Data Protection issues relating to working with learners in online environments. They will be able to support learners in working together online in both small and large groups. They will engage in collaborative practices to support planning and resource development. They will be able to support their learners in collaboratively creating and presenting work.

Staff at the next level:

- Can support independent learning through student selection of a range of collaborative tools and approaches to complete work or extra curricular activities.
- Are able to support learners in working collaboratively with other students at a distance, using a range of web-based tools
- Can provide advice and support for colleagues in the use of collaborative and participatory practices.

Key Resources

E-Safety and Online Identity


The **E-Safety and Online Identity** strand underpins those which come before it - it encompasses the knowledge of how to keep both yourself and learners safe online and what constitutes appropriate and positive online behaviours

Leicester City Council's Building Schools for the Future programme in partnership with De Montfort University

Figure 1.2 Screenshot of survey feedback output - Communication, Collaboration and Participation

Data Analysis

Seven hundred and one members of staff out of the total cohort of 1,780 completed the survey, that is, 39 per cent of all eligible staff. Of the 23 BSF schools, 22 participated in the survey; with school participation rates varying between one per cent and 100 per cent.

The survey data were anonymised, using unique identification numbers for all participants. Staff completing the survey for a second year were assigned the same identification number as in 2013, allowing comparison across the two survey years. Initially, descriptive statistics were used to provide a city-wide picture; describing the range, spread and average of scores achieved across the whole sample. The data were then organised into a range of demographic sub-groups and inferential statistics were used to investigate potential relationships between participant demographics, their confidence ratings and the strand levels they attained within the framework.

The analysis focused on two main areas: the effect on confidence in the use of technology to support teaching and learning by demographic factors (identified by the initial, general confidence rating question in the survey) and the effect on individual strand levels by demographic factors (Entry, Core, Developer or Pioneer). In order to investigate any variance between the data subsets, Mann Whitney U and Kruskal Wallis tests were utilised (the former for subgroups with two samples, the latter for those with three or more samples). These tests were deemed as the best fit for the data collected, due to the subjective and therefore more qualitative, nature of the ranking process. Where appropriate, box plots have been used to visually represent the variance between subgroups.

For the categories of *age* and *years in service*, Kendall's Tau rank correlation coefficient was used to measure the association between the demographic factor and confidence or individual strand levels achieved across the framework. In this way the analysis searched for a positive or negative correlation. This test was used as a wide range of answers were received for these categories, sometimes with only one or two participants in each subgroup, making other testing inappropriate.

Finally, with data collected from both 2013 and 2014, comparative analysis was carried out on the general confidence and strand levels achieved for staff taking the survey in both years. Of the 701 participants this year, 209 (that is 29 per cent) were taking the survey for a second year. Wilcoxon signed-rank tests were completed to identify any differences between the two groups. A Wilcoxon test is equivalent to a Mann Whitney, used when comparing related samples. In this case, the data is collected from the same individual but on two separate occasions.

Free text comments were coded using Alan Bryman's (2012) four stage approach, in order to draw out the key themes. Initially, the comments were read and summarised and the summaries from the two researchers working independently were compared

to determine the major themes within the transcripts. In the second stage, the comments were read again and the major themes used to derive codes. The codes were then reviewed to ensure their suitability and where appropriate to condense codes. The final stage of the process was to link the codes to the context of the study, to interpret the findings and identify significant themes.

Survey Limitations

It should be noted that the data collected is from a self-selecting sample of secondary school staff. In schools where a smaller percentage of staff took the survey, schools achieved higher average scores than in schools where a larger percentage of staff completed. This suggests that results may be weighted to over-represent more confident staff members. However, despite the increase in participants this year, including 492 new participants, the data has not shown a decrease in average scores, suggesting that the findings are likely to be a fair indication of the total cohort.

The survey methodology does not support submission or review of evidence relating to staff self-evaluation of skills. Therefore, the survey measures digital literacy confidence levels. The survey explicitly asks teachers to reflect on their use of technology in the context of their current teaching practice (rather than, for example, their use of technology in a personal capacity). Recent research shows a clear link between the frequency of learners' use of ICT and staff confidence levels (European Commission and Directorate General for Communications Networks, Content and Technology 2013). This suggests that confidence, while being an important measure in its own right, also relates to the frequency and effectiveness of use of technology.

The schools participating in the *DigiLit Leicester* project are extremely diverse. Whilst the project team have endeavoured to work with all schools across the city in developing the framework and survey, it is understood that not every area will map precisely at every level to the needs of every school. For example, for staff who work with learners with profound and multiple learning disabilities, some aspects of the survey content may not map usefully to their roles. The 2014 survey has seen an increase in SEN staff participation, however, and confidence averages have not been affected. Therefore, we are confident that each area has something to offer every school context, with several of the strands being clearly relevant to all school staff.

The project contributes to a clearer understanding of the current digital literacy confidence levels of secondary school staff. With a participation rate of 39 per cent, the *DigiLit Leicester* Project team are confident that the data provides enough evidence to take forward work and recommendations designed to improve digital literacy skills and practices.

Key Findings







This section of the report draws out the headlines from the survey data. Starting with the headline trends from the whole sample, focus is then turned to the findings of the demographic analyses. Finally, the main themes arising from participants' comments are presented.

Headlines

- The survey opened by asking staff “How confident do you feel about using technology to support teaching and learning practices?”. On a scale where 1=Not at all confident and 7=Extremely confident, the majority of staff marked their overall confidence in using technology to support teaching and learning as 6, suggesting that staff feel very confident.
- Fifty six per cent of the staff who participated in the survey classified their skills and confidence at the highest level - Pioneer - in one or more of the six key digital literacy areas. This shows that the city has a wealth of practitioners who are creating and sharing resources, are confident in their own practice, are connected to networks of practice and are able to effectively support colleagues' development.
- Twenty three per cent of all those who participated in the survey placed themselves at Entry level in one or more of the six key areas. Although the percentage of staff at this level is lower than in 2013, this year's survey has identified a higher number of Entry level staff overall, due to the increase in participants.
- Staff feel least confident in the area of *Communication, Collaboration and Participation*, with 9 per cent of staff rating themselves as Entry level. This suggests that they may require further support in the use of social and collaborative technologies, for example wikis, blogs, social bookmarking tools and networking sites. Used effectively, collaborative technologies can increase learning opportunities, enhance learner engagement and ensure the whole school community is connected, informed, and involved.
- Staff rate their skills and confidence highest in the area of *E-Safety and Online Identity*, with 43.5 per cent of all respondents scoring at Pioneer level. This suggests that staff have a positive, active online identity, and keep up to date with research relating to young people use of gaming, mobile and web based technologies. Pioneers in this area take a whole school community approach to e-safety and cyberbullying activities and education, and are able to advise learners and colleagues.

City Data Overview

The following table presents the spread of staff rating their skills and confidence in each level across all six key strands. The blue box highlights the highest number of entry level staff (where participants feel least confident/skilled) and the purple box highlights the highest number of pioneer level staff (where participants feel the most confident/skilled).

	Entry	Core	Developer	Pioneer
 Finding, Evaluating and Organising	62 (8.8%)	201 (28.7%)	313 (44.7%)	125 (17.8%)
 Creating and Sharing	47 (6.7%)	248 (35.4%)	297 (42.4%)	109 (15.5%)
 Assessment and Feedback	59 (8.4%)	175 (25%)	317 (45.2%)	150 (21.4%)
 Communication, Collaboration and Participation	63 (9%)	208 (29.7%)	299 (42.6%)	131 (18.7%)
 E-Safety and Online Identity	22 (3.1%)	106 (15.1%)	268 (38.3%)	305 (43.5%)
 Technology supported Professional Development	60 (8.6%)	181 (25.8%)	299 (42.6%)	161 (23%)
Uniques ¹	162 (23%)	449	612	391 (56%)

¹ Staff may have achieved the same level across a number of strands, for example scoring 'core' at more than one level. The 'uniques' row identifies the number of individual members of staff falling at each level within the framework.

Demographic Analysis

Below are high-level summaries of the data analysis findings, related to the demographic data collected from the survey. This information was used to investigate potential relationships between certain demographic factors and their effect on confidence in the use of technology to support teaching and learning (linked to scores in the initial, general confidence rating question in the survey) and their effect on individual strand levels (Entry, Core, Developer or Pioneer) scored throughout the survey.

In this section of the report, the term 'average' refers to the median score. This is due to the subjective nature of the data, which dictated the type of statistical analysis that could be applied.

The Schools

The analysis showed no significant difference between the 23 BSF schools in terms of confidence level, despite the differences in provision and size between schools. This was also the case for four of the individual strand level scores. In *Assessment and Feedback*, the majority of schools recorded an average of 3 (Developer), with scores falling across the full range of levels. Three schools recorded a lower average of 2 (Core). Variance also occurred in the area of *E-Safety and Online Identity*, where four schools recorded higher averages (4, Pioneer) than the overall average (3, Developer). No clear links between the schools scoring differently from the majority were identified.

School Type

Schools data were grouped into two categories, mainstream and SEN and specialist provision, in order to examine any variance between the two school types. In terms of confidence level, no significant difference was found between the two categories. However, data from individual strand level scores, showed variance between the two groups in three strands: *Creating and Sharing*, *Assessment and Feedback* and *Communication, Collaboration and Participation*. Both groups recorded an average level of 3 (Developer) across each strand area.

Figure 2.1 shows a graph comparing the percentages of staff within each group at each level of the *Assessment and Feedback* strand. When the data are compared in this way we are able to see where the difference between the two groups lies. Whilst the scores from SEN schools are fairly evenly distributed, we can see that scores from mainstream schools are weighted more towards the higher levels of the framework. Similar results are found for *Creating and Sharing* and *Communication, Collaboration and Participation*. These findings may be due to the differing needs of SEN and specialist provision learners.

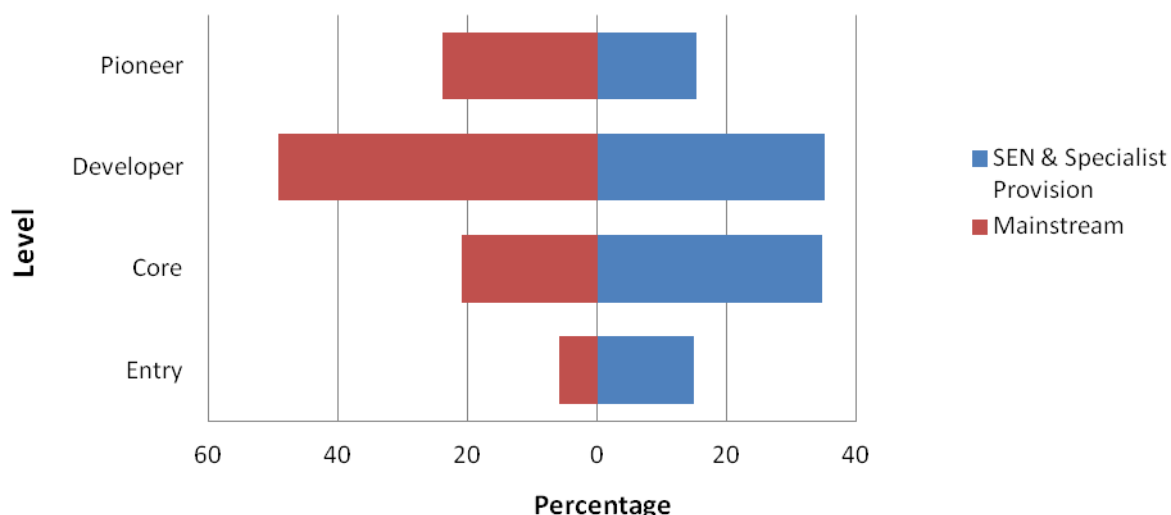


Figure 2.1 - Comparison of strand levels in Assessment and Feedback by school type

Staff Role

Staff data were split into two groups, teaching staff and learning support. A breakdown of these groups can be found in Appendix A. The analysis found no difference between teaching and learning support roles in terms of confidence level, however, some variance occurs in the individual strand level scores. In both *Creating and Sharing* and *Assessment and Feedback*, teaching staff tend to rate their skills (average = 3, Developer) higher than teaching support staff (average = 2, Core). This may have occurred due to the different responsibilities associated with each role, for example, teaching staff tend to lead on the assessment process.

Subject Group

The survey collected information from staff regarding their primary subject area or role. In order to protect the anonymity of individual participants and to ensure groupings were large enough to meet statistical test criteria, subject areas were organised into groups. A breakdown of these groupings can be found in Appendix A. Analysis has shown that both in terms of confidence level and individual strand level scores, highly significant variance exists.

As Figure 2.2 demonstrates, in terms of confidence level, the majority of subjects recorded an average confidence rating of 5. Teachers of ICT/Computing, Science and Maths recorded an average of 6. The majority of subjects also recorded the full range of levels (4), suggesting a variety of confidence levels. ICT/Computing teachers had the shortest range of rankings, between 5 and 7, showing that staff teaching this subject rate their confidence highly.

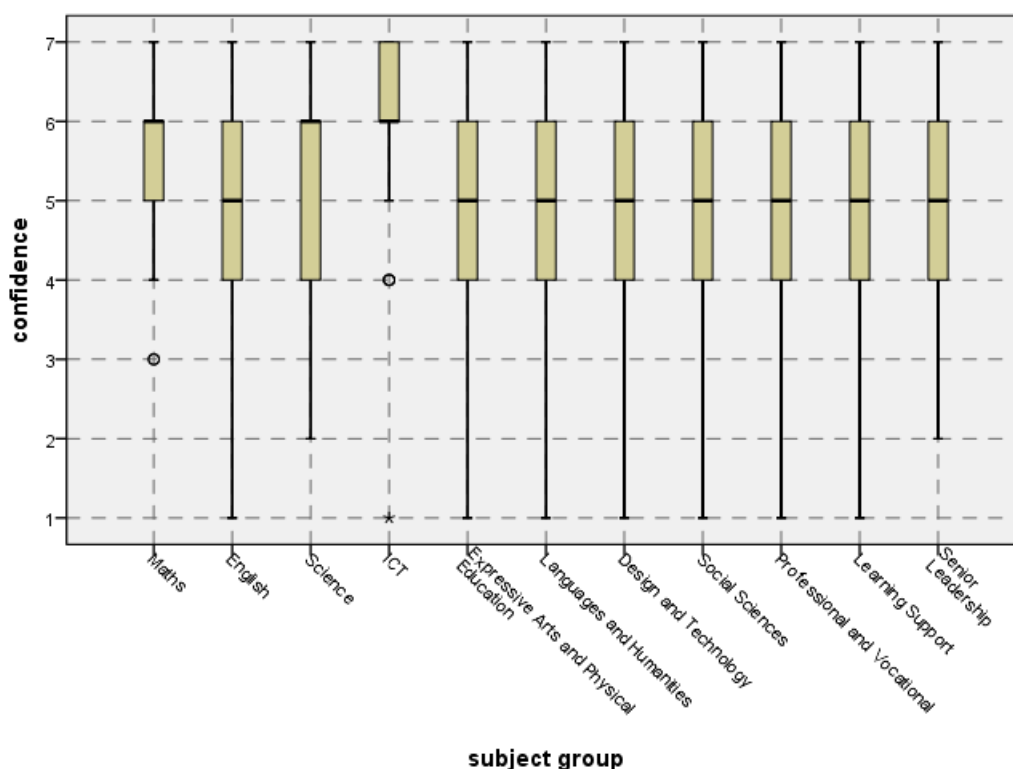


Figure 3.2 Box plots comparison of confidence ratings for subject group subsets

In relation to the individual strand level scores, ICT/Computing teachers scored themselves above average across three of the six areas: *Finding, Evaluating and Organising*; *Communication, Collaboration and Participation* and *E-Safety and Online Identity*. The strand level of Senior Leadership was also above average in *E-Safety and Online Identity*. This suggests that ICT/Computing teachers may be well placed to support their colleagues in other subject areas in developing their practice around digital literacy.

Teachers of the Social Sciences rated their skills and confidence lower than the average in all strand areas besides *E-Safety and Online Identity*. Learning support staff also rated themselves below the average level in *Creating and Sharing* and *Assessment and Feedback*. As previously noted, this may be due to the requirements of their role.

Gender

The survey collected data on participants' gender, and offered them the opportunity to register as 'male', 'female', or 'prefer not to say'. The findings show that whilst there is no difference in confidence level between males and those who prefer not to say or females and those who prefer not say, there is a significant difference between males and females. Figure 2.3 shows that on average male participants scored their confidence (6) higher than that of females or those who preferred not to state their gender (5). Females also report a wider range of confidence levels

(min=1, max=7) than that of males (min=4, max=7) or those who preferred not to say (min=3, max=7). However, it should be noted that research into perceived online skills has highlighted that females tend to assess themselves significantly lower than their actual capability, and that in tests of actual online skills men and women are, in general, fairly equal (Hargittai and Shafer 2006).

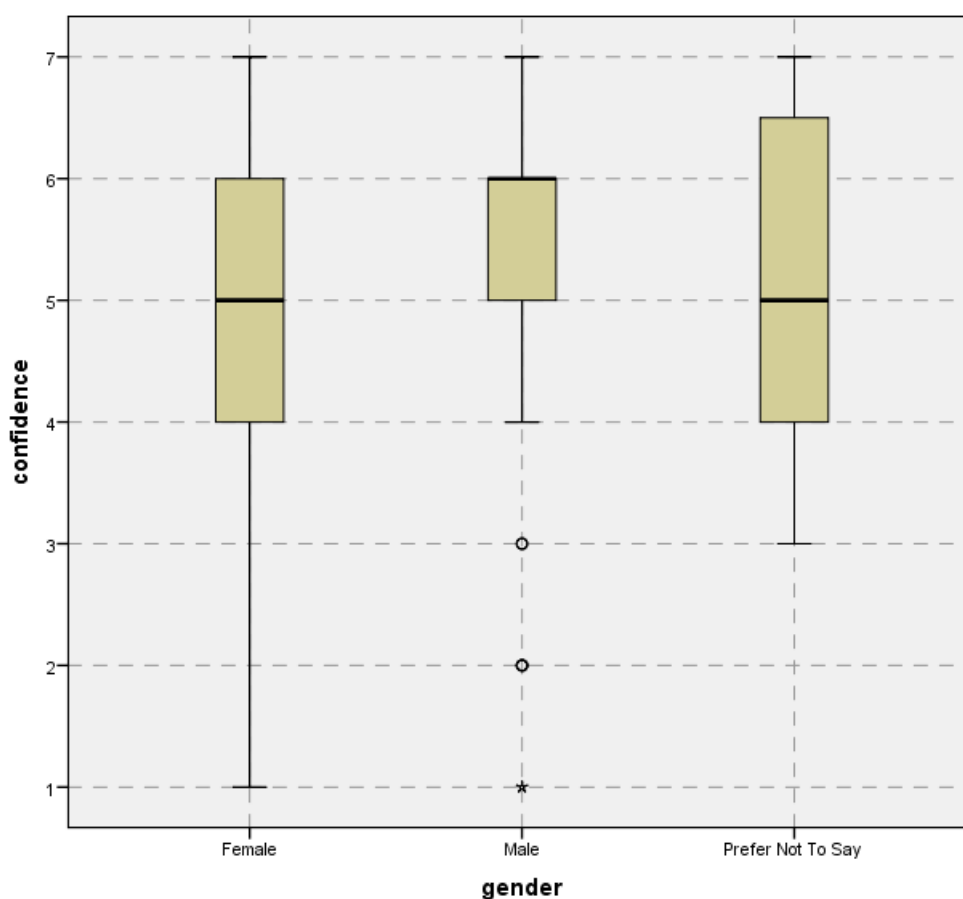


Figure 2.3 Box plot comparison of confidence ratings for gender subsets

This is also the case across four of the six strand areas: *Finding, Evaluating and Organising; Creating and Sharing; Assessment and Feedback* and *Communication, Collaboration and Participation*. No significant difference was found between males and females in *Technology supported Professional Development*.

In the area of *E-Safety and Online Identity*, no significant difference was found between males and females. A difference was found, however, between males and those who prefer not to say and also between females and those who prefer not to say. Those who preferred not to state their gender recorded strand level scores across the entire range (min=1, max=4), with the middle 50 per cent of the group rating their skills and confidence between Core and Developer. Both males and females recorded a shorter range (min=2, max=4), with their middle 50 per cent falling between Developer and Pioneer.

Age

As with the data collected in 2013, a significant negative correlation was found between both age and confidence level and between age and individual strand level scores. This would suggest that the older a member of staff is, the less confident they feel about using technology to support teaching and learning practices. However, small effect sizes make the correlations weak. So whilst the 2013 and 2014 data shows a negative correlation in all strands, the weakness of the correlation implies that age is not a strong enough predictor of confidence on its own and that other factors may be involved.

Years in Service

Similar to age, a significant but weak negative correlation was found between years in service and confidence level. The data shows that years in service is not a strong predictor of confidence in digital literacy.

In relation to the individual strand level scores, significant but weak negative correlations exist for *Creating and Sharing*, *Assessment and Feedback* and *Communication, Collaboration and Participation*. Of particular interest, is the correlation between years in service and *Communication, Collaboration and Participation* where, whilst still weak, the correlation is the strongest and the significance the greatest. This suggests that if a negative correlation does exist, it is the most prevalent in this area of practice.

General Confidence

A positive correlation was found between confidence level and the individual strand level scores. The confidence level captures the broader confidence of a member of staff in their use of technology, whilst the strand levels are mapped to professional practices. This indicates that participants scoring themselves highly in the initial confidence rating scale tended to also perceive themselves as working among the higher levels of the framework for the individual strands.

Comment Themes

Following each framework strand section, staff were given the opportunity to leave comments. Of the 701 members of staff who took the survey, 50 individuals left a comment in one or more areas. These comments were analysed using Bryman's four stage coding process and the subsequent key themes emerged:

Continuing Professional Development (CPD) needs

Where staff made comments within the survey, 26 per cent (27 statements) were in relation to CPD needs – where staff identified they needed support in developing their knowledge, skills and practice. This was most often in relation to broad areas of practice, for example using technology to support Assessment and Feedback, or specific practices, such as blogging and video conferencing. On two occasions staff specifically highlighted a piece of software they wished to learn about. Three requests were also made for more sharing of practice across the city.

Relevance

Staff commented 22 times on the relevance of the skills and practices listed among the statements, either in relation to their role or, due to this year's increase in participation from SEN schools, in relation to the school setting. In some cases staff felt that in their current role they did not need to develop skills in certain areas, and this was often linked to how they supported learners. For example, teaching support staff felt that certain practices were not applicable to their responsibilities (these comments related to a range of practices across all survey strands). Staff from SEN schools noted that their learners were not able to engage in some learning activities, meaning that whilst staff may have knowledge of these practices, they do not have as much experience of implementing them. Work has been carried out with SEN schools, investigating how well the survey content fits to their school contexts and it should be noted that staff from SEN schools did not rate their skills and confidence significantly differently from mainstream staff.

"I can demonstrate all of the above for my own work; however, the students do not work at these levels. Assessment and Feedback yes, obviously important to me, but not the methods highlighted above." (Participant 10)

Experience

Staff left 23 comments referencing the tools and techniques that they are making use of. In comparison to the comments collected last year, staff referred to new tools and devices that they had encountered this year (rather than existing skills) and their feelings about these experiences. Of the 23 statements, only six highlighted where staff felt their experience was lacking and therefore skills had not been developed; mainly around Open Educational Resources (OER) and social media. A number of

staff mentioned social learning experiences; working with colleagues to solve a problem or share a skill.

"I am able to make much better use of online resources, especially through the support of the Maths Faculty." (Participant 264)

Constraints

Eight staff comments discussed the constraints they face against integrating the practices outlined in the digital literacy strands into their practice. They noted constraints related to time and equipment. For many staff, their new school building is close to completion and this appears to have made staff more aware of the age and quality of their current equipment. Staff also commented that they found it difficult to keep up to date in the use of technology to support learning and teaching, which they attributed to the fast pace of change in the area.

Progress

For 2014, participants introduced a new comment theme. Thirteen per cent of comments (13 statements) left by participants related to progress being made over the last year. All progress statements were made by staff who completed the survey in both 2013 and 2014. Comments show staff have made use of the framework to frame self-directed development of their skills and confidence in selected areas.

"I have been working on improving my repertoire of resources that I can access and use with some confidence." (Participant 150)

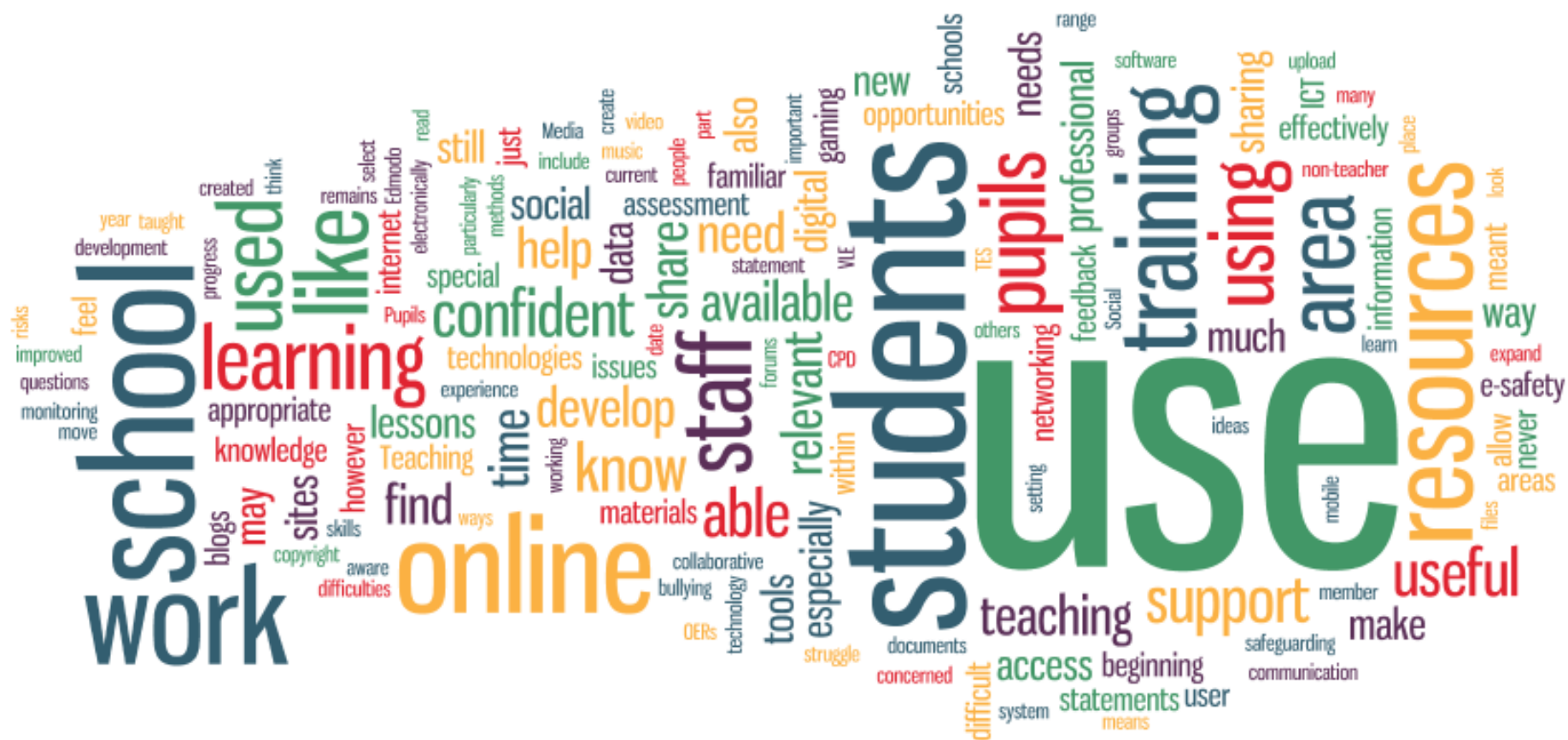


Figure 3 Word cloud of most used terms from comments collected by survey

In 2013, 450 members of staff (24 per cent of all eligible staff) from the city's BSF schools completed the *DigiLit Leicester Survey*. In 2014, this increased to 701 members of staff (39 per cent of all eligible staff). In particular, an increase has been seen in engagement from the city's SEN and Specialist Provision schools.

Out of the 701 staff who completed the survey in 2014, 492 were new participants. Headline findings from the 2014 data are consistent with those from 2013; reinforcing the validity of the project's initial findings and recommendations and the project's future work. The findings from this year's demographic analysis have also remained largely consistent; with only one or two new findings, likely down to the increase in data collected.

Of the 450 staff who participated in the 2013 Survey, 209 returned to complete the survey in 2014. Analysis has shown that across the group, a significant change has occurred in the levels achieved in five of the six strand areas (excluding *E-Safety and Online Identity* where confidence levels were already high). Within most strands, a fall in Core level practitioners has been followed by an increase in Developer and Pioneer level staff. Figure 6 shows an example from the *Communication, Collaboration and Participation* strand.

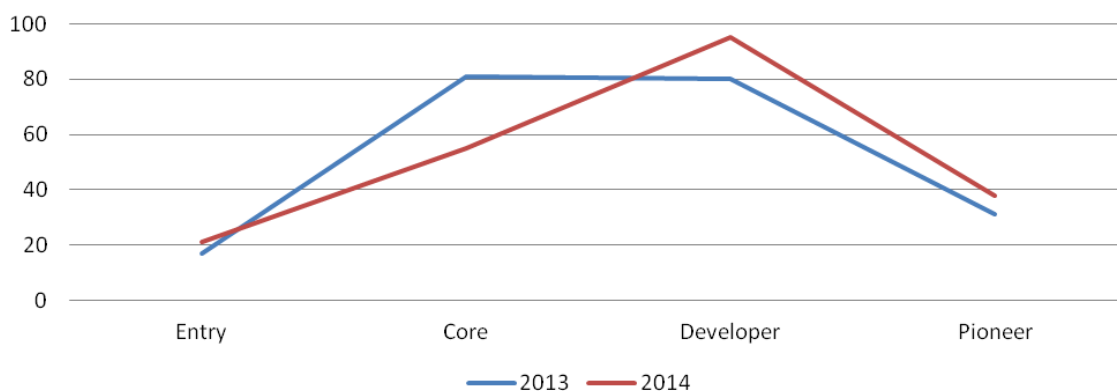


Figure 4 – Comparison of levels achieved in 2013 and 2014 in Communication, Collaboration and Participation

Analysis of data within levels (each level contains two rating scores) shows a significant change for all six strand areas. The majority of movement is within the lower boundary of Core and the upper boundary of Developer.

In most strands, Entry level staff have largely shown an increase in skills and confidence. However, in *Assessment and Feedback* and *Communication, Collaboration and Participation*, more staff have remained at Entry level than moved forward.

Next Steps

In response to this year's survey findings, The *DigiLit Leicester* team have identified a number of priorities they will be focusing on during the next year, and encouraging BSF schools to engage with.

Sharing and promoting Pioneer practice

The project has highlighted a wealth of confidence across the city in using technology to support learners and learning. A total of 391 members of staff, that is 56 per cent of all staff who completed the survey, classified their skills and confidence at the highest level – Pioneer - in one or more of the six key digital literacy areas. In order to score at Pioneer level, staff are actively supporting their peers – either through the creation of support materials, the design and delivery of training, or the provision of informal support.

Recommendations:

1. Ensure that the work being done by city Pioneers is promoted and shared more widely. Promote and support the use of open licences to enable wider use and reuse of educational resources produced by city staff.
2. Provide encouragement, opportunity and recognition to Pioneers who support Entry level colleagues.

Supporting entry-level staff

The project has also drawn attention to a significant number of staff (162, that is 23 per cent) who have scored themselves at the Entry level across one or more of the six strands. Whilst the percentage of staff in this category has decreased slightly from 2013, this year's survey has highlighted an increase in the number of individual staff members at this level. The comparison of data from the 2013 and 2014 surveys demonstrates the DigiLit Leicester project approach and work has had a positive impact over the last year, with the largest area of progression being from staff who previously identified at Core level. The approach taken by the project in terms of activities and school engagement has characteristically been practitioner led and lightly scaffolded. Less progress is shown at Entry level, particularly within *Assessment and Feedback* and *Communication, Collaboration and Participation*, indicating that activities which provide greater support and specifically focusing on staff who are interested in beginning to use technology to support their practice is required.

Recommendation:

3. Provide supported opportunities and resources specifically designed for and accessible to Entry level staff, particularly in relation to *Assessment and Feedback* and *Communication, Collaboration and Participation*.

Supporting self-directed staff development

Of the 209 members of staff who retook the survey in 2014, an average of 21 per cent of staff noted an increase in their skills and confidence. Comparison data shows this as characteristically a progression of staff previously rating themselves at Core level. This indicates that the project approach (the framework, reflective survey tool, centrally supported activities linked to strand areas, and support for school based, practitioner led activities), has been particularly successful with respect to supporting staff working at Core levels.

Recommendation:

4. Continue to provide support for self-directed staff development projects and activities. This approach is supported by the research literature, which has shown that professional development programmes that support staff in focusing on developing their own knowledge 'are most likely to lead to transformative change' (Fraser et al. 2007, p.167).

Encouraging contextual e-safety guidance

The city as a whole scored strongly on the *E-Safety and Online Identity* strand, with 81.8 per cent of staff placing themselves in the higher Developer and Pioneer levels. *Communication, Collaboration and Participation* scores are not in alignment, with 38.7 per cent placing themselves at Entry and Core level. This suggests that e-safety education is being managed within a context of restriction and limits on access to certain technologies and digital environments. This approach can be characterised as *protected by restrictions* and, whilst effective, has been identified as potentially limiting to online opportunities, including the development of digital literacy (Helsper et al. 2013).

This indicates that schools would benefit from support in understanding ways in which social and collaborative technologies can be used to effectively support learners and school communities, in e-safety resources specifically linked to social and collaborative tools and environments, and in expanding existing practice in this area.

Recommendation:

5. Continue to support work which supports schools in expanding the safe and effective use of social and collaborative technologies.

Increasing knowledge and use of Open Educational Resources (OERs)

A total of 42.1 per cent of staff rated their skills and confidence in the lower levels of the framework (Entry and Core) in *Creating and Sharing*. In line with last year, staff comments informed us that they were unfamiliar with Open Educational Resources (OERs), and Open Licencing. These findings are in line with European Commission concerns that education and training providers are currently not taking advantage of the use and creation of Open Educational Resources. The *DigiLit Leicester* Project has a commitment to Open Education and the production of Open Educational Resources, to ensure best value and maximum impact of our work. We are currently working on Entry level materials for staff in this area, as well as guidance for school leaders, in order to support staff across the city in understanding and making use of Open Licensing, and creating and sharing their own Open Educational Resources.

Recommendation:

6. Complete work on the project's current Open Education schools project, and evaluate the benefit of continued focus on and additional work in this area.

The sixth framework strand – *Technology supported Professional Development* – will enable staff and schools to effectively take staff digital literacy forward – particularly in relation to raising the profile of and sharing the outstanding practice going on across the city, to support less confident staff members, and to develop staff skills in collaborative technologies and the creation and sharing of resources. The project team will be looking at how it can take forward work in this area, particularly relating to staff use of online Personal Learning Networks.

Further information and resources to support staff and schools in all framework strand areas can be found at: <http://www.digilitleic.com> under 'Digital Literacy Resources'.

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Appendix A – Role and Subject Categories

Role Categories

Teaching: Maths, English, Science, ICT/Computing, Art, Dance, Drama, Music, P.E., History, Geography, Modern Foreign Languages, R.E., Design & Technology, Food & Nutrition, Citizenship, Life Skills, Sociology, Business/Enterprise, Health and Social Care, Media and Vocational Education.

Learning Support: EAL Support, Cover Supervisor, Teaching Assistant, Higher Level Teaching Assistant, Librarians, SEN Specialist Provision and Senior Leadership.

Subject Categories

Maths

English

Science

ICT

Expressive Arts and Physical Education: Art, Dance, Drama, Music and P.E.

Languages and Humanities: History, Geography, Modern Foreign Languages and R.E.

Design and Technology: Design & Technology and Food & Nutrition

Social Sciences: Citizenship, Life Skills and Sociology

Professional and Vocational: Business, Health and Social Care, Media and Vocational Education

Learning Support: EAL Support, Cover Supervisor, Teaching Assistant, Higher Level Teaching Assistant, Librarians and SEN Specialist Provision

Senior Leadership

Appendix B – Leicester BSF Schools

Ash Field Academy

Babington Community College

Beaumont Leys School

Children's Hospital Schools

The City of Leicester College

Crown Hills Community College

Ellesmere College

English Martyrs' Catholic School

Fullhurst Community College

Hamilton Community College

Judgemeadow Community College

Keyham Lodge School

The Lancaster School

Millgate School

Moat Community College

Nether Hall School

New College Leicester

Rushey Mead School

Secondary Behaviour Support Service

Sir Jonathan North Community College

Soar Valley College

St Paul's Catholic School

West Gate School

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