Online Safety Policy and Practice in the UK – An Analysis of 360 degree safe self review data

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Executive Summary

The 360 Degree Safe e-safety self review tool provides schools with the resources to explore their current policy and practice around safe online engagement.

This report presents an analysis of data submitted from 547 education establishments from across UK, and is believed to be the largest study of its kind in the world. It provides an evidence base that has not previously existed and allows us to understand national performance as never before.

The data shows that in some aspects there are strengths, and these generally focus on infrastructure and policy areas, such as:

- Filtering
- Acceptable Use Policies
- Policy Scope
- Policy development

However, in these weakest areas, around wider engagement or education, the data suggests that schools require further development and support:

- Community understanding
- Governor training
- Monitoring the impact of policy and practice
- E-Safety Committee
- Staff training

One of the lowest rated aspects of online safety in schools is staff training. This was found to be consistent across all types of schools. Without a sound knowledge base in their staff, how can schools play a central role in making the online world a safer place for young people.

We can also demonstrate that primary schools are consistently less developed in their policy and practice compared to their secondary counterparts, and have significant issues in whole school involvement and those issues that require significant specialist knowledge (such as ensuring effective technical security in schools).

The data also suggests that while there is regional variation in performance, there is a consistent pattern of activity across the country that supports the theory that schools are more effective at policy and protection mechanisms than consistent long term education. However, it also suggests

that urban settings might have better resourcing to provide a more consistent practice than in rural settings. However, this does require more data and further analysis.

This report will become an annual publication by the South West Grid for Learning which will provide a “state of the nation” report on online safety. These annual reports will provide an unparalleled evidence base for informing thinking in schools as well driving policy change in the field. The database will continue to grow as more establishments sign up and will increase in authority as the tool and its adoption matures.

September 2010

Introduction

360 degree safe was launched by SWGfL in November 2009 to allow schools to evaluate their own online safety provision; benchmark that provision against others; identify and prioritise areas for improvement and find advice and support to move forward.

Over 650 have already used the free resource which integrates online safety into school policy and the curriculum in a way that actively challenges teachers and managers in the school to think about their online safety provision, and its continual evolution.

The flexibility of 360 degree safe is such that it can be introduced at any speed (as appropriate to the school's situation) and can be used in any size or type of school. As each question is raised so it provides suggestions for improvements and also makes suggestions for possible sources of evidence which can be used to support judgements and be offered to inspectors when required.

In one particularly interesting development, where evidence is needed, the program provides links to specific areas of relevant documents, rather than simply signposting documents on the web. This saves time for everyone concerned about online safety, and allows the school to show immediately the coverage and relevance of its online safety provision.

360 degree safe will also provide summary reports of progression, (again this is useful when challenged), and is an excellent way of helping all staff (not just those charged with the job of implementing an online safety policy) to understand the scope of online safety and what the school is doing about the issue.

Above all 360 degree safe provides a prioritised action plan, suggesting not just what needs to be done, but also in what order it needs to be done. This is a vital bonus for teachers and managers who approach the issue of online safety for the first time, in a school which has no (or only a very rudimentary) policy.

This self review process is more meaningful if it includes the perceptions and views of all stakeholders. As broad a group of people as possible should be involved to ensure the ownership of online safety is widespread.

Once they have registered to take part in 360 degree safe process the school will be able to download the Commitment to E-Safety Certificate form for signing by the Headteacher and Chair of Governors as a sign of the commitment to use the online tool. Once the school has completed some of the elements of 360 degree safe tool then the E-Safety Certificate of Progress can be awarded.

When the school meets the benchmark levels it is formally assessed before being awarded the "E-Safety Mark", an award validated and approved by the University of Plymouth.

For more information subscribe to the SWGfL E-Safety mailing list for future updates at: www.swgfl.org.uk/mailinglist and visit the website http://www.360safe.org.uk/

An overview of the 360 structure, detailing aspects covered, can be found at http://360safe.org.uk/Files/Documents/360-degree-safe-Structure-Map.

Methodology

An overview of the 360 structure, detailing aspects covered, can be found at http://360safe.org.uk/Files/Documents/360-degree-safe-Structure-Map. Establishments carry out the self review via a web interface and submitted data is stored in a relational database structure

which holds the information in a collection on related “tables”, each table related to a specific data element within the system. The three data tables which provide the core for analysis relate to establishments, 360 degree safe aspects, and individual ratings, which detail an entry that an establishment has made against a specific aspect.

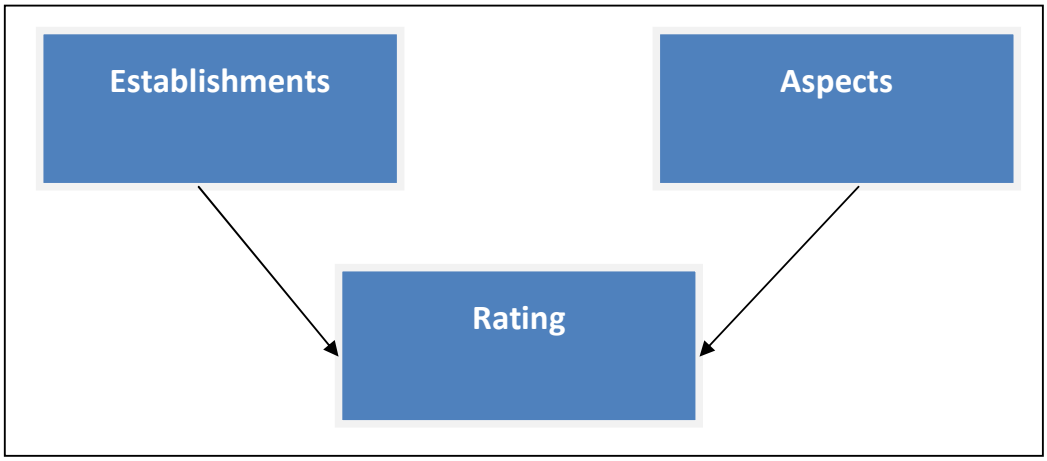


Figure 1 - 360 data structure

Each establishment’s “profile” comprises a number of entries in the rating table, each related to a specific aspect. It is possible for an establishment to have more than one entry in the rating table associated with a specific aspect which would reflect that they are using the tool for school improvement around online safety practice. An establishment’s profile will also reflect their current stage

Given the relational structure of the 360 degree safe data, the primary approach to analysis is through the use of SQL[1]. This approach provides the means to explore the data in the table structures. In addition, summary data was loaded into Microsoft Excel for further statistical analysis and graphing.

Analysis of the data focuses on establishment’s self review of their online safety policy and practice, exploring their ratings against the 28 aspects of 360 degree safe. Aspect exploration allows the measurement of degrees of progression and improvement in the self review and those where, in general, policy and practice among UK educational establishment requires support to support further progress.

It should be acknowledged that the data being explored is self reviewed – the establishments give themselves ratings against the aspects and level definitions. It is not “validated” data without an inspection, which will only occur if the establishment wishes to gain accreditation. However, self review is well established practice within the UK school system and level descriptors are very clearly defined. In addition, accreditation visits to date have demonstrated that in the instances of inspection that have occurred, self review ratings have been generally accurate. They also show that

[1] http://en.wikipedia.org/wiki/SQL

many establishments have input for a wide and varied range of stakeholders which again ensures accuracy of self review.

Details of the Establishments Analysed

In total, once test data has been removed, the analysis presented in this report is based on responses from 547 establishments across England.

Given the South West origins of the tool, it is no surprise that the majority of responding establishments were in that region. However, there were establishments from all areas of England, and one in Wales. Based upon the local authority specified by each establishment, figure 1 details the proportion of establishments from different regions. In addition, 45 non-local authority establishments were represented, including independent schools, organisations and individual professionals.

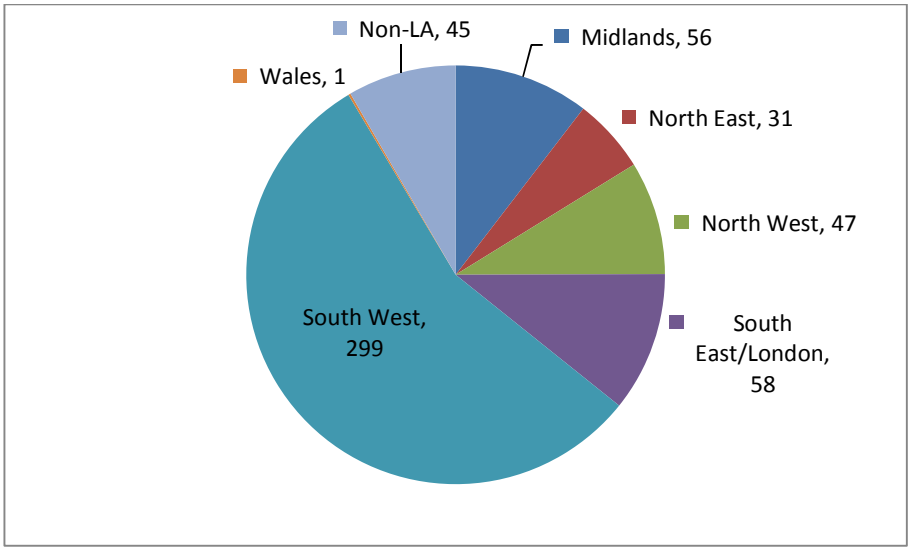


Figure 2 - Establishment geography

The “phase” of the establishment responses shows the breakdown between primary, secondary and “other”, as well as those non-local authority establishments that did not specify. “Other” schools included special educational needs and community schools.

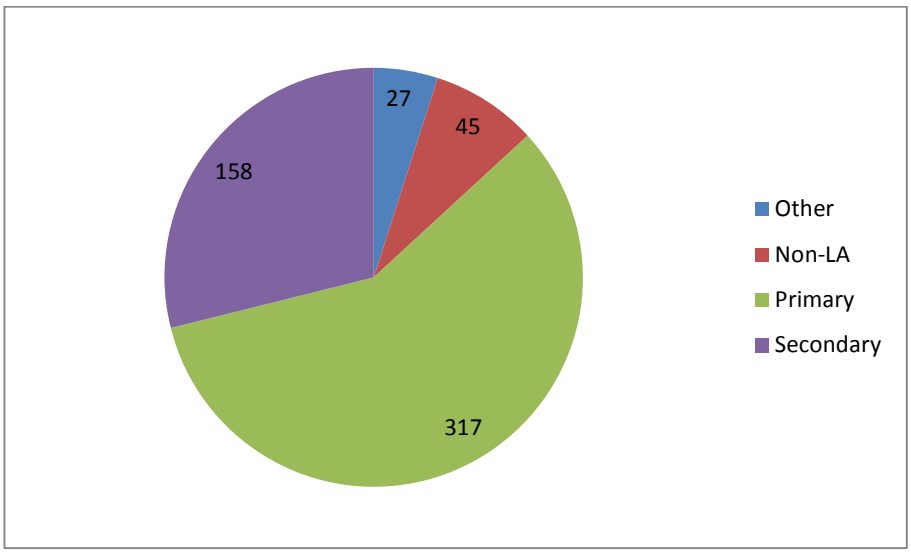


Figure 3 - Establishment "phase"

Analysis of Aspect Performance

Top level analysis of practice and policy performance explores responses to different aspects given by each establishment. As noted above, it is possible for establishments to use the 360 degree safe tool to monitor their own development, and track progress on specific aspects by modifying their self review rating based upon school improvements. The tool keeps an historical log of all ratings so, in theory, it can be used to look at the evolution of an establishment's profile over time. However, it should be noted that the tool has been available for establishments to use for less than a year and as such most have not embarked on the use of the tool in this manner. Less than 10% of establishments have posted more than one rating on any given aspect, and therefore for this report, the "best" rating (i.e the lowest value) for each establishment will be considered in the aspect analysis. It is anticipated that in future years this report will explore trends in school improvement as a result of long term use of the tool.

It should also be noted that it is not necessary for an establishment to have completed the full self review to have it's data logged in the tool. Therefore, different aspects have been rated by different numbers of establishments. In total, 267 establishments from our population have carried out the full self review. Of those establishments that have not completed a full review, figure 4 illustrates the variety of levels of completion to date. It details the number of establishments that have achieved each given number of aspects to show the range of completion

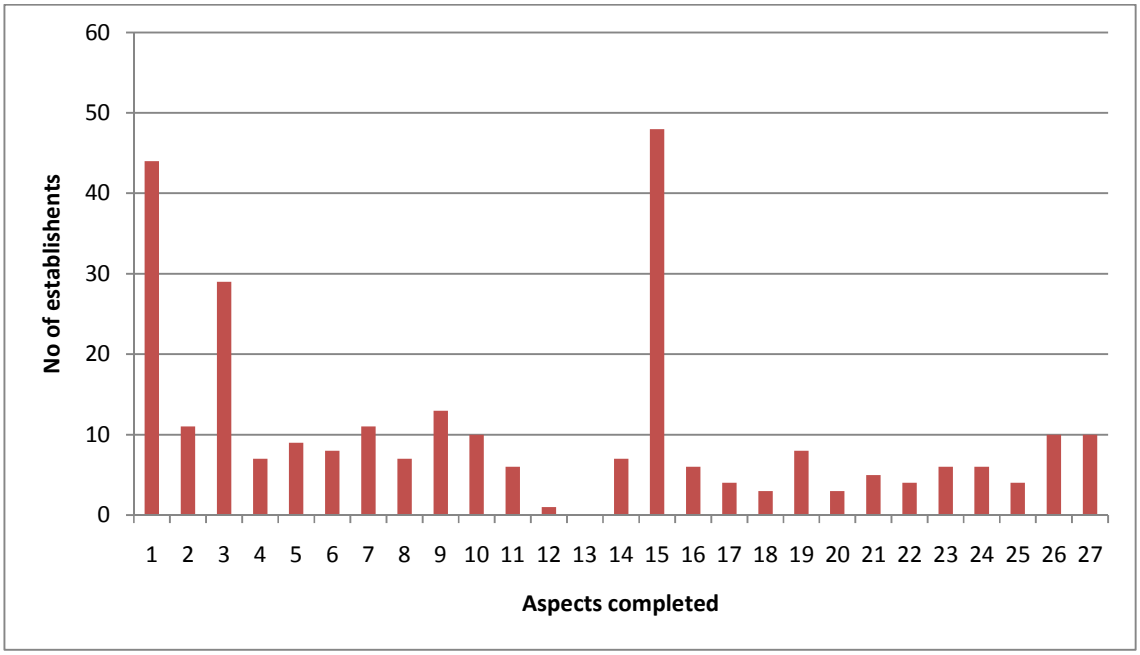


Figure 4 – The number of aspects completed by any establishment that has not done the full review

This breakdown shows a spread of responses from those still in the early stages of self review to those nearing completion of the full set of aspects.

In further exploring which aspects are more "popular" with establishments, we can examine each aspect and the number of establishments who have completed a self review of that element. This is detailed in figure 5:

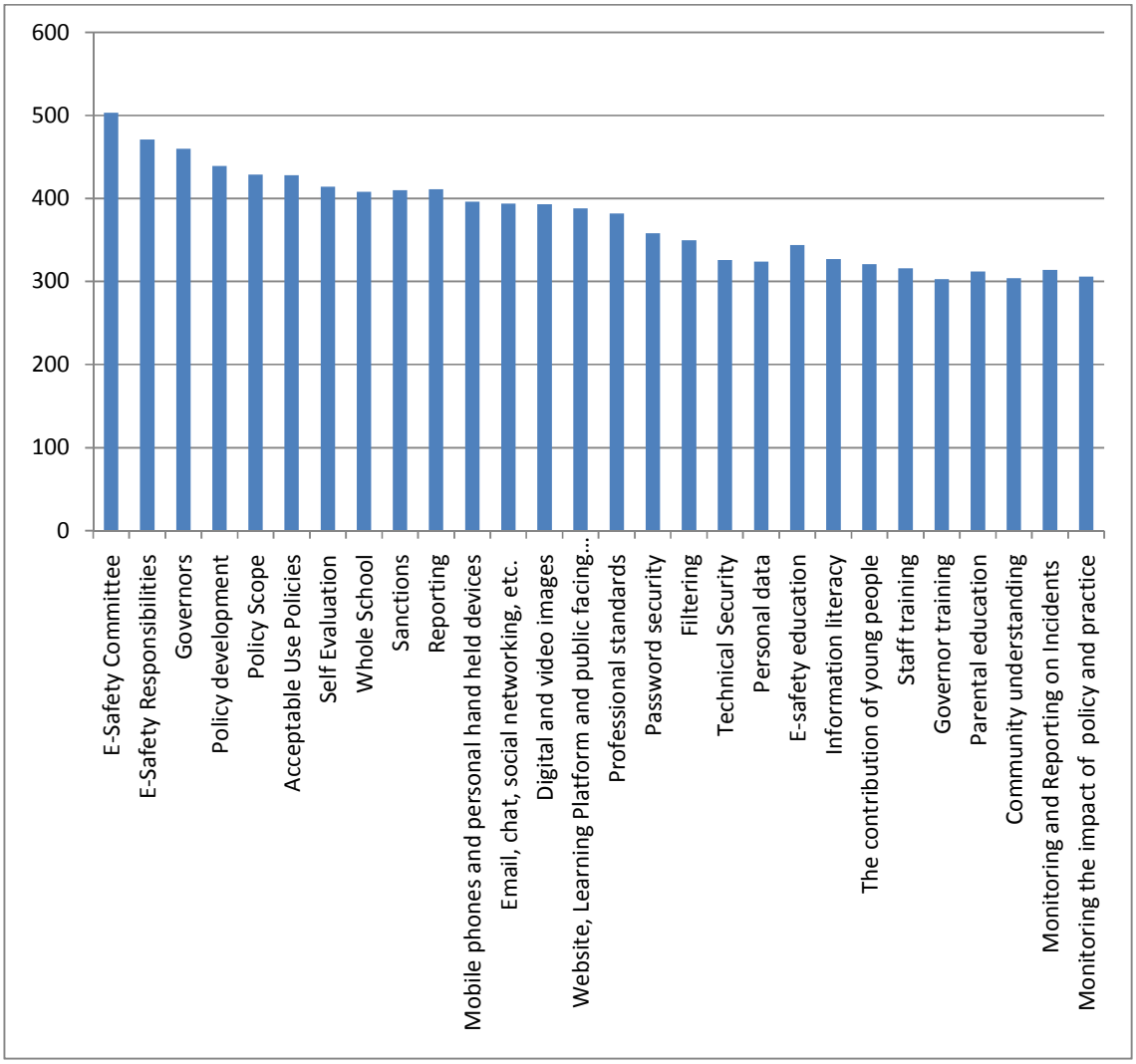


Figure 5 - Aspect frequency

The aspects are ordered as they appear in the self review tool and the pattern presented shows that most establishments will undertake a linear approach to completing the self review. There is a fairly consistent drop in aspect frequency depending on how late they appear in the review. It should be noted that the tool can be used in a non-linear manner, but it would suggest from this figure that this is not used by the majority of establishments.

Given the variability in the number of establishments carrying out specific aspects of self review, the focus of analysis of performance against each one is carried out independent of establishment profile – i.e. each aspect is looked at in isolation. Analysis at establishment level is carried out later in this report. However, exploration of aspects is extremely valuable in examining online safety policy and practice across the country, given the breadth of responding establishments in terms of geography and "type".

However, we acknowledge that it is likely that the respondents who have embarked on an online safety self review are likely to be more engaged in such than those who have not yet. Therefore, we

present the data with the assumption that this may be better than average if it were possible to analyse performance in all educational establishments in the country.

Each aspect can be rated by the self reviewing establishments on a progressive maturity scale from 5 (lowest rating) and 1 (highest). In all cases analysis of the aspect ratings shows an across establishment maximum rating of 1 and minimum of 5. Therefore, in order to determine cross-establishment performance, average scores for each rating are used to measure areas of strength and weakness in online safety policy and practice. Figure 6 illustrates overall averages across aspects:

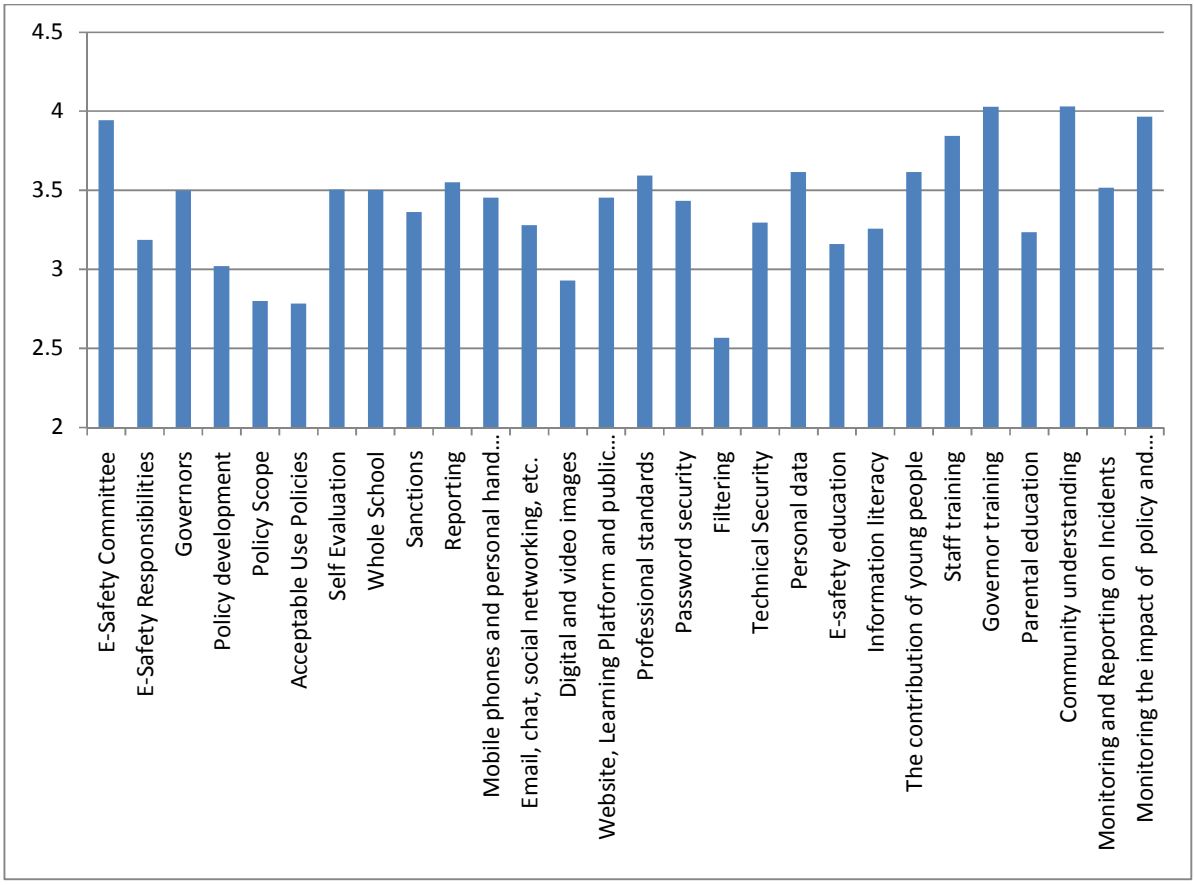


Figure 6 - Average ratings per aspect

The top 5 aspects across establishments are:

- Filtering (2.57)
- Acceptable Use Policies (2.78)
- Policy Scope (2.8)
- Digital and video images (2.93)
- Policy development (3.02)

All of the highest rated aspects centre on either technical or policy (i.e. documentary) practice. For example, Filtering is generally provided and maintained by an external agency, in the case of SW schools this will be the SWGfL. Even the "Digital and video images" aspect, which does at the higher

levels have an expectation of the embracing of such in the curriculum, is very policy centred in the aspect definition.

However, the five lowest rated aspects are all those one might view as being centred on education (i.e those that require whole school commitment, training, etc.):

- Community understanding (4.03)
- Governor training (4.03)
- Monitoring the impact of policy and practice (3.96)
- E-Safety Committee (3.94)
- Staff training (3.84)

These are all activities that require considerable and consistent resource investment to achieve high ratings – and are all aspects where a document or technical solution will not suffice.

In further exploring performance across establishments, it is useful to consider the standard deviation of each aspect. Standard deviation allows us to measure the "spread" of ratings across establishments. The lower the standard deviation, the more consistent the measure across establishments – i.e. different establishments have given themselves similar scores. A high standard deviation would mean that different establishments were using a broad range of scores for self review. Figure 7 shows the standard deviations across the aspects:

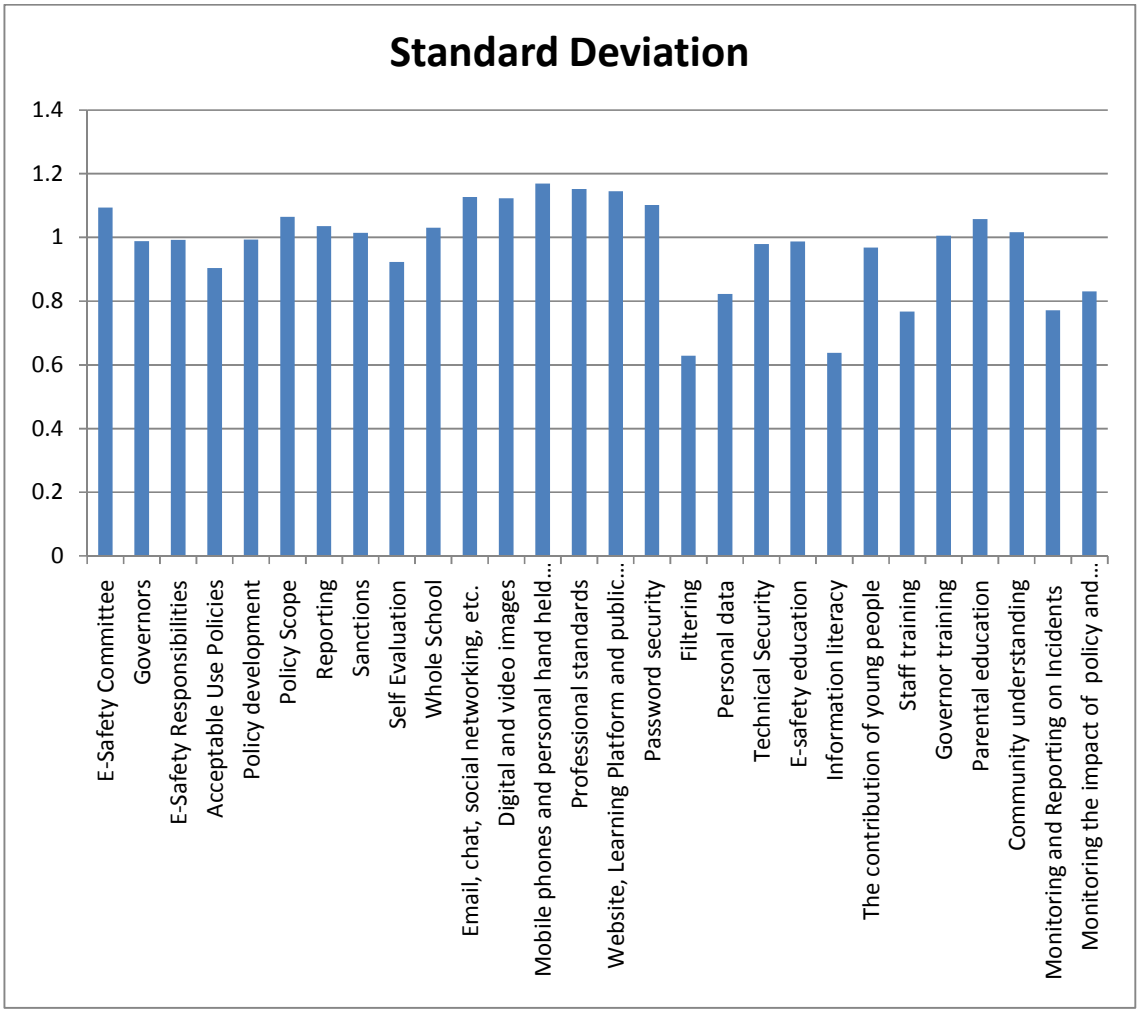


Figure 7 - Standard deviation of aspects

By examining standard deviations alongside averages, we get a richer picture of practice across the country. For example, “Filtering” is by a high average and low standard deviation, which shows that filtering is consistently highly rated across establishments. However, in general filtering does not require much internal resource for the establishment, with most filtering services put in place by the network provider at the school. In contrast, another “high” average– Digital images and video – has a higher standard deviation, which shows that practice is more variable with this particular aspect.

It is more interesting to consider the lower performing aspects against standard deviation. For example, “staff training” is one of the lower aspects on average across establishments. It also has a low standard deviation (0.787).

It can therefore be concluded that staff training is consistently one of the weakest aspects of online safety practice in schools.

Further exploration of online safety policy and practice

The data provided by the tool allows us to explore practice and breakdown the performance based upon different metrics. For example, a comparison of primary and secondary school performance is illustrated in figure 8:

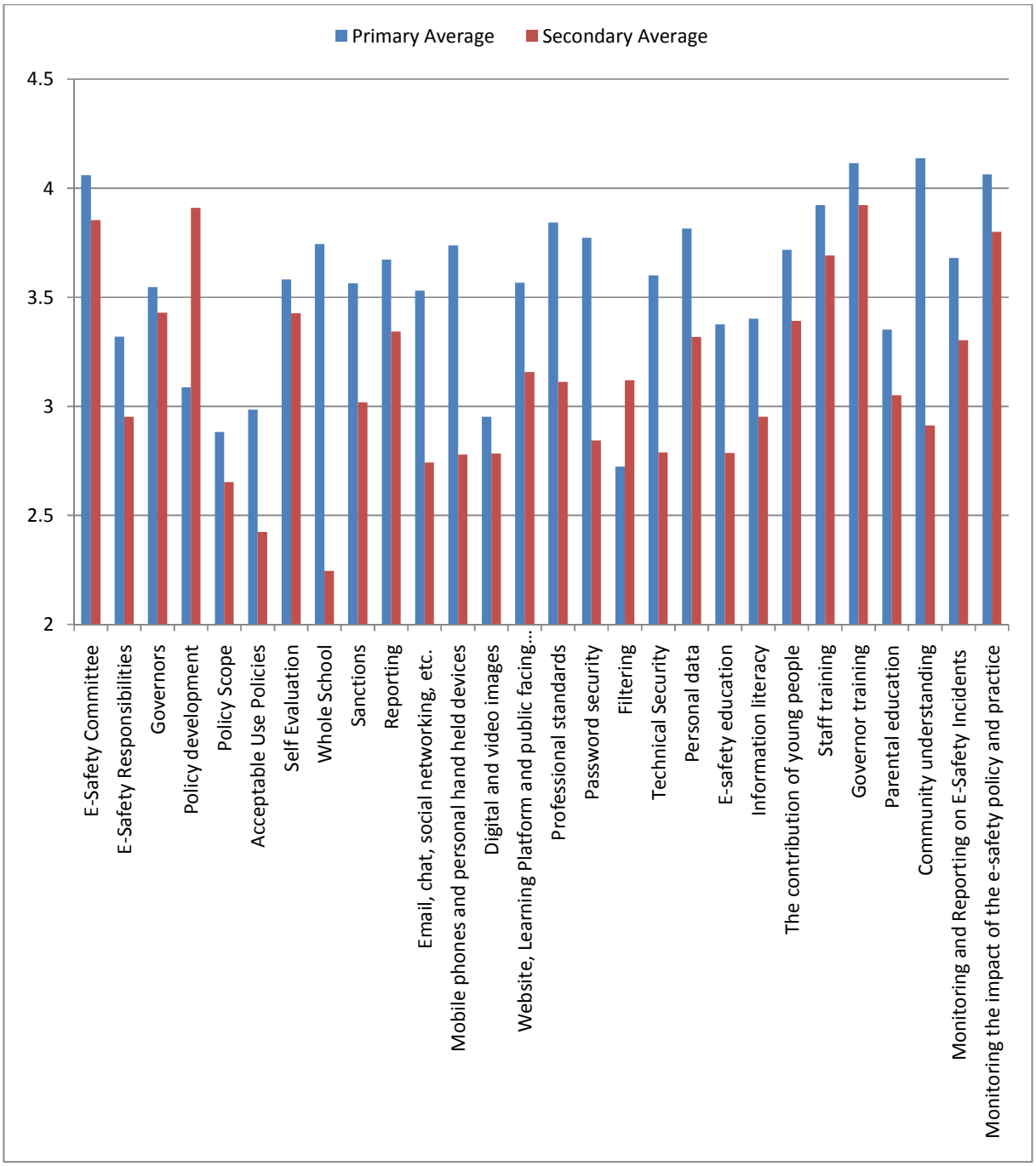


Figure 8 - Primary/secondary comparison on averages

This data shows that primary schools consistently rate themselves lower than secondary schools, apart from two aspects. While it is perhaps not surprising that in primary schools, where generally

there is less resource and less room for specialism, the breadth of difference is great in places. In some cases, the average aspect rating can be more than a whole level. The most significant comparisons are:

- Whole School (1.5 difference)
- Community understanding (1.23)
- Mobile phones and personal hand held devices (0.96)
- Password security (0.93)
- Technical Security (0.81)

Mobile phones and hand held devices might not be too much of a surprise, given the assumption in many primary schools that their pupils do not have mobile devices. However, it is clear that mobile ownership (particularly at KS2 level) is increasing in primary schools. Two of the other aspects (Password Security and Technical Security) both have a requirement for technical expertise in the establishment which, again, can sometimes be lacking in smaller schools. The two aspects which show the largest divide between primary and secondary schools, whole school and community understanding, both require buy-in and wider involvement from multiple stakeholders both without and outside of the school.

Place Analysis

The final exploration of the data breaks performance into different local authority areas. The aim of this analysis is not to compare performance of different authorities but to determine areas of consistency and disparity in more depth. While standard deviation allows a measure of performance spread across the whole profile database, by breaking into local authority areas, we are able to look at a more fine grain level at practice.

Not all local authorities who have establishments returning responses to the 360 database are represented. Authorities with 5 or more establishments are included in the analysis and are presented in the radar plot in figure 9. This complex graph illustrates the areas where practice is consistently rated as stronger or weaker, such as filtering and acceptable usage policy, or community education or staff training. However, areas that are viewed as “weakest” in the overall analysis can be far more fragmented at a finer level, such as governor training and e-safety committee.

In addition, there are many aspects that are very variable in performance (for example, sanctions, e-safety education and parental engagement).

However, in terms of overall “shape”, it is interesting to note that there is a consistent pattern to the majority of aspects, with strengths in policy and infrastructure, with weaker performance in education and standards. This is clarified in figure 10, which shows the “strongest” and “weakest” local authorities, as well as an “average” value comprising of cumulative averages across all local authorities. The shape remains fairly consistent in each measure.

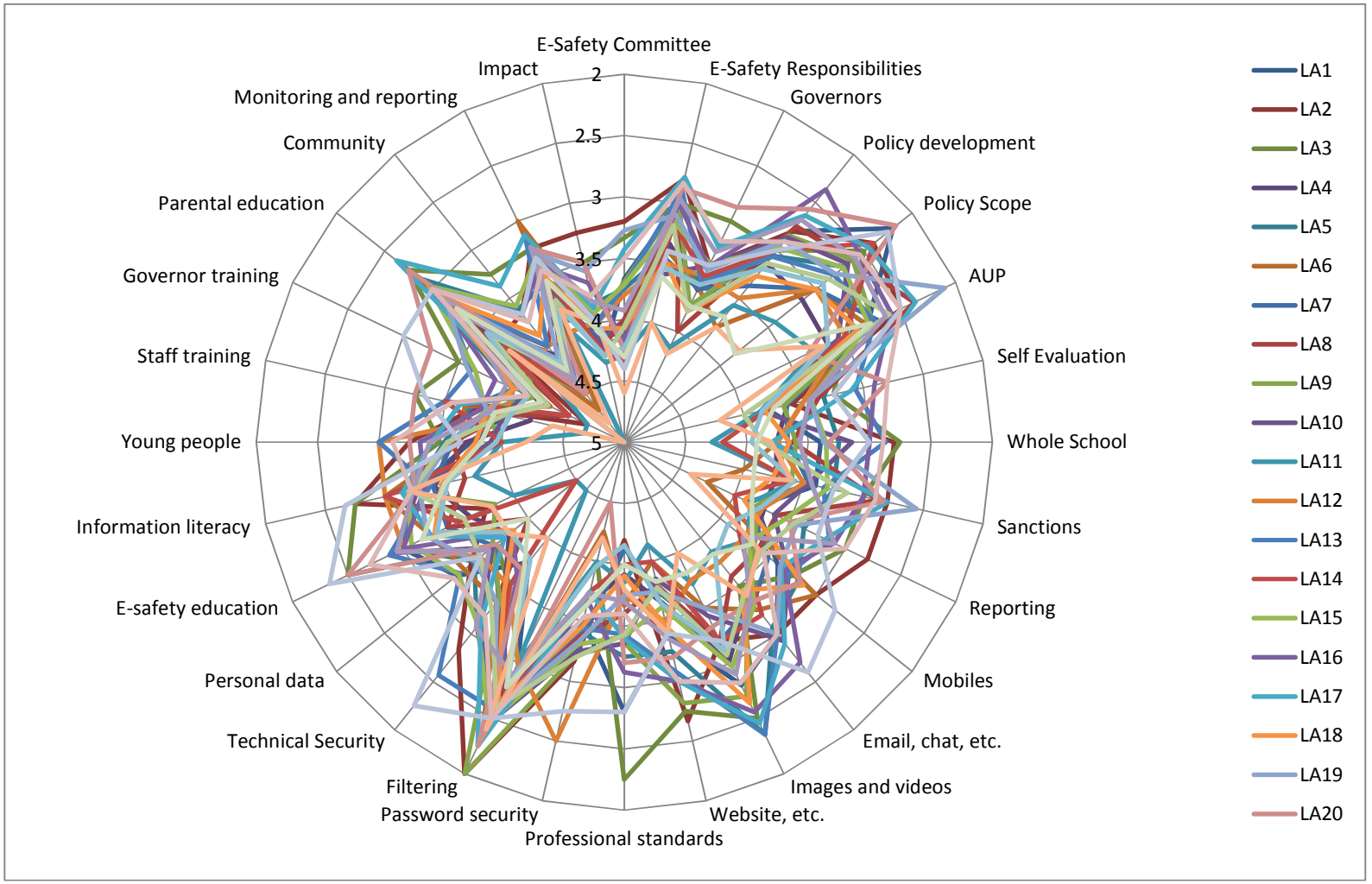


Figure 9 - Place analysis to identify areas of consistent practice

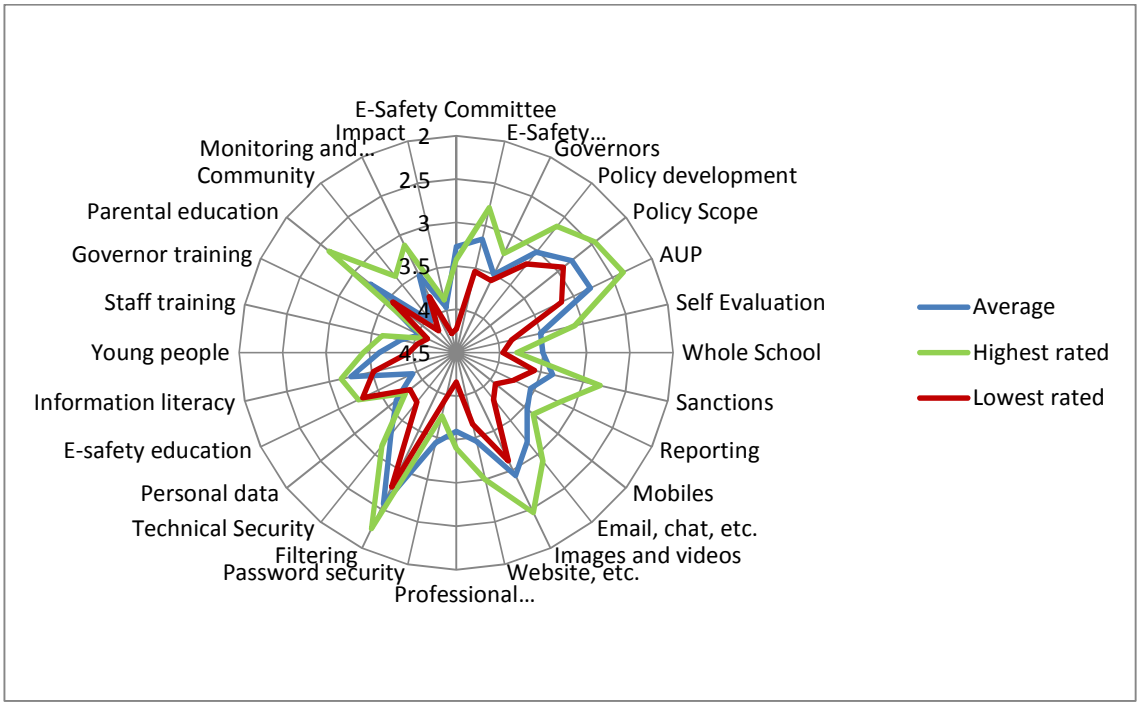


Figure 10 - Comparison of "best" and "worst" locale compared to cumulative average

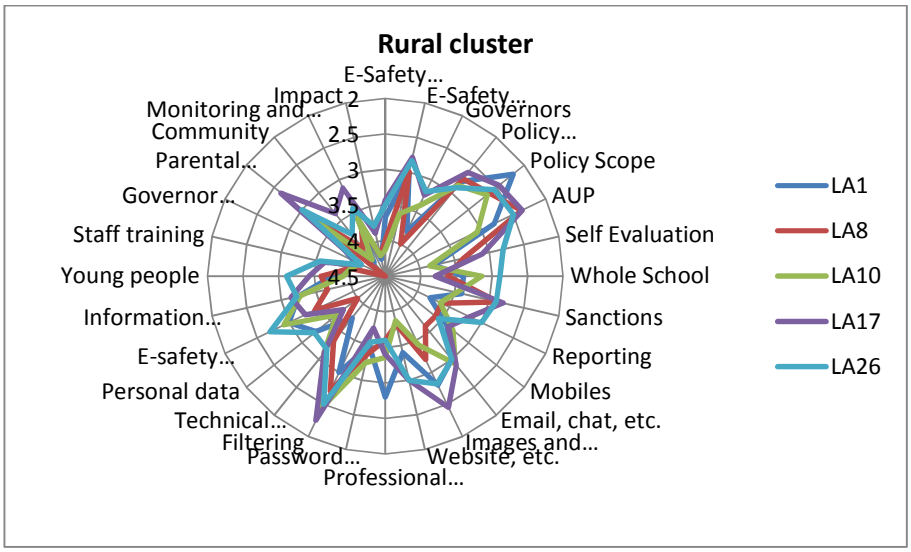
Neighbourhood Analysis

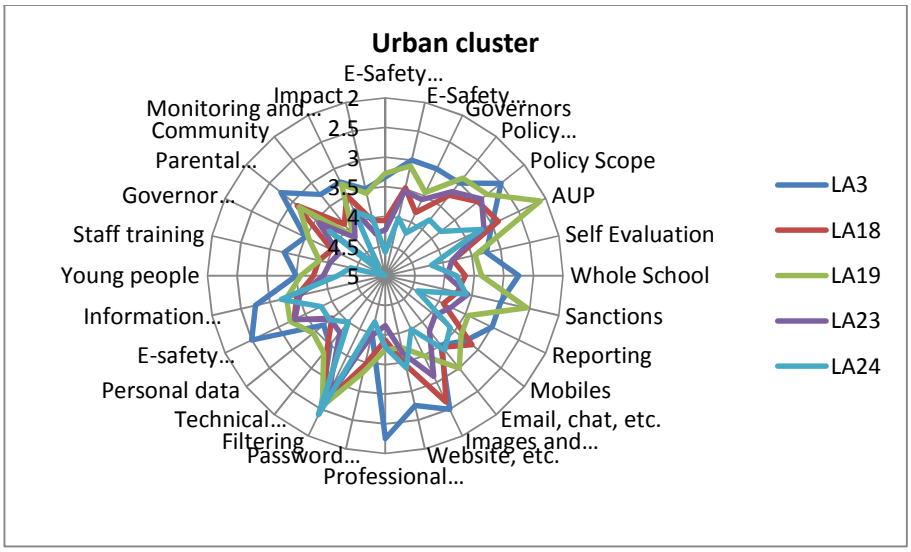
In our final analysis we consider "neighbourhood" local authorities as a way of considering environmental factors and their impact upon online safety and practice. This analysis uses the BIS 'Children's Services Statistical Neighbour Benchmarking Tool' which uses a number of local authority metrics (Infant mortality rate, U18 Conception Rate, Number of children Killed or Seriously Injured in Road Traffic Accidents, KS1 % L2+ Reading, KS1 % L2+ Writing)[2] to group local authorities against these measures.

Using this tool three local authority "clusters" were identified and their performances are presented in figure 11. It is interesting to note the shape of each cluster –the first and third cluster reflect the prevalent "shape" detailed in both figures 9 and 10, with policy and technical infrastructure being areas of strength, dropping away in aspects related to education and standards/inspection. However, the second cluster has a different, broader shape presented. The second cluster represents a number of local authorities who might be considered "urban" – generally city based authorities. The other two clusters represent "rural" and "semi-rural" authorities.

While it would be speculation to explore reasons for this differentiation without further analysis, it does highlight that environmental factors may have an impact on school policy and practice.

[2] http://www.dcsf.gov.uk/rsgateway/DB/STA/t000712/index.shtml





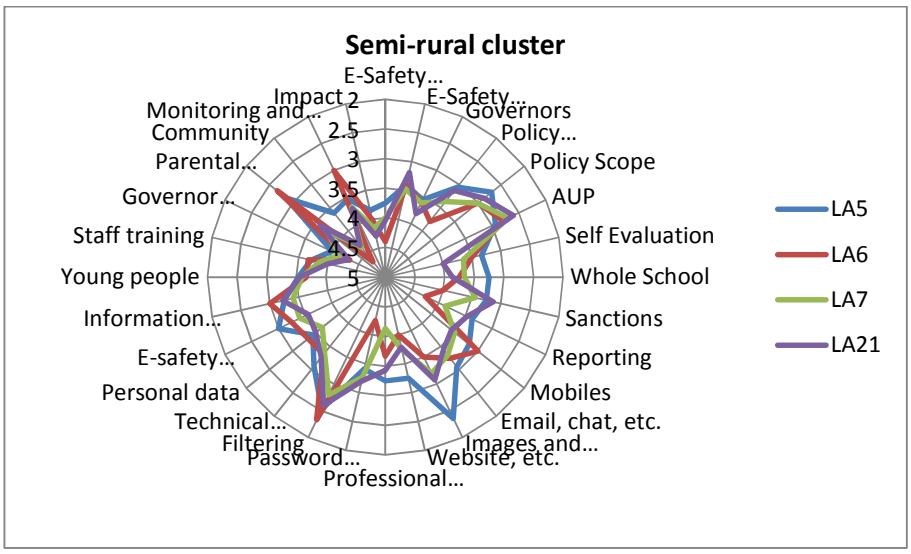


Figure 11 - LA cluster analysis

Summary

This report explores online safety policy and practice in schools across the country using self review data submitted from 547 education establishments. The data was generated, in July 2010, from the SWGfL's 360degree safe self review tool which has been developed by online safety experts to encompass a whole school approach to online safety that considers aspects from technical infrastructure to measures put in place for the monitoring and reporting of online safety incidents.

The data presents a picture of policy and practice across the country. From these cumulative averages of all submitting establishments, it is possible to identify areas of strength around policy and infrastructure, such as filtering and policy development. However those aspects that one might suggest require longer term and sustained resource to carry out effectively are generally lowest rated. Through exploring the standard deviations of aspect ratings, we can also see areas where performance is consistently stronger (for example, filtering) or consistently weaker (for example, staff training).

By comparing performance between different types of establishments it can be demonstrated that the ratings for online safety in primary schools are lower than those in secondary schools. Again, those resource intensive aspects are generally rated lower, although with primary schools rate themselves lower in technical areas. This is perhaps not surprising, given the difficulties smaller primary schools face in sustaining full time technical support.

By breaking the data into local authority areas we can demonstrate that practice, while variable across different regions, still follows the same pattern of strength in policy and infrastructure, but lacking in areas such as education. Even though there is regional variation the data does suggest that urban settings might have a different pattern.

It is clear from this analysis that educational establishments require targeted support for online safety that meets the needs evident from this report. The issues around online safety are becoming more frequent and complex and schools are often viewed as the organisation best placed to provide online safety guidance and support for young people, staff, parents / carers and the wider community. However, the data suggests that few schools have the knowledge and confidence to fulfil this role.

We consider this data analysis to be the "tip of the iceberg" as far as exploring the nature of online safety policy and practice in schools. With more schools using the tool, the data will become far richer and more detailed analyses will allow a greater understanding of the future issues

September 2010