



Privacy Debate Kit

Evaluation Report

Distributed from January 2018

Evaluated September–October 2018

- We estimate that at least 861 Debate Kits have been used by teachers.
- 85% of teachers who filled in the feedback survey intend to use the Kit again.
- Teachers report that the Debate Kit helps their students develop communication skills including speaking, listening, and developing structured arguments; as well as giving students a chance to see science applied to topics outside of the curriculum.

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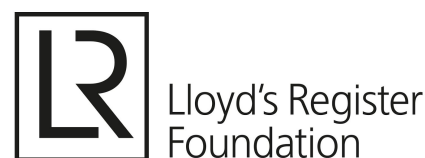
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Introduction

The Privacy Debate Kit was funded by the Royal Institution and Lloyd's Register Foundation. It was produced alongside the CHRISTMAS LECTURES Zone (xmasprivacy.imascientist.org.uk), in partnership with the 2017 RI CHRISTMAS LECTURES series: *The language of life*.



The Privacy Debate Kit asks the question: *Should mobile phones always be listening?* This question sets the ground for discussion of the issues surrounding privacy; students explore the privacy implications and benefits of our phone microphones listening in. The kit provides teachers with a resource to get their students discussing the associated personal, social and economic issues and to help them appreciate the power and limitations of science. The structure shows students how to build a discussion and back up their opinions with facts.



All the facts in the Kit were researched and teachers were provided with a list of references and additional resources relating to the Kit: debate.imascientist.org.uk/privacy-resources.

Additionally, the Debate Kit included a presentation to help teach during the debate, as well as an online survey to measure how each classes' views changed during the debate. It is an online survey which teachers fill in at three different stages during the activity.

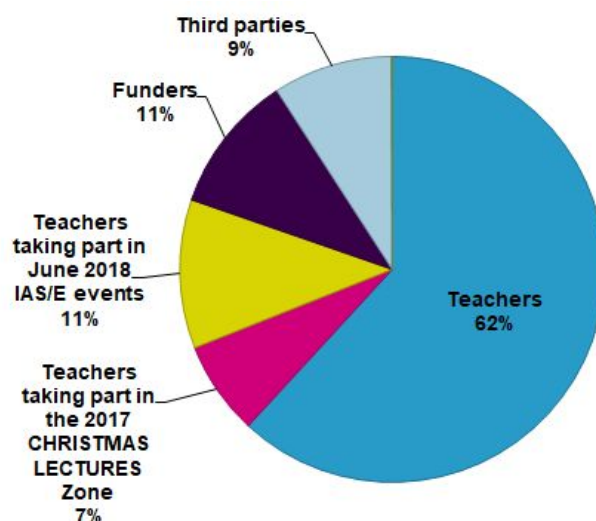
Teacher feedback data in this report looks at survey responses collected between May and September 2018.

Distribution

2,000 Debate Kits were printed in December 2017, and were distributed from January 2018 onwards. As of the end of September 2018, all but a handful of copies have been distributed, and distribution has closed on the site.

Distribution routes were as follows:

- 1231 Kits were distributed to teachers in the UK and Ireland following direct requests.
- 142 Debate Kits distributed to teachers participating in the 2017 CHRISTMAS LECTURES Zone.
- 225 Kits included in teacher packs and sent to teachers participating in I'm a Scientist and I'm an Engineer in June 2018.
- 181 Kits distributed to third parties (including STEM Hubs, and science centres).
- 210 Kits were sent to funders.
- 1 Kit was sent to a collaborator.
- *10 Kits remain for use as file copies, and for giving to teachers as requested.*



80% of Kits were distributed directly to teachers for use in schools. A further 20% were sent to funders and third parties for further distribution.

Additionally, digital versions of the Debate Kit are available to download free-of-charge from the Debate Kit website¹, the National STEM Learning website², and the British Science Week workbook and website³.

At time of writing, the Debate Kit has been downloaded from our own site 581 times.

The number of direct teacher requests makes the Privacy Debate Kit the most popular Debate Kit produced to date.

¹ debate.imascientist.org.uk/the-kits/#privacy

² stem.org.uk/resources/elibrary/resource/424487/privacy-debate-kit

³ britishscienceweek.org/plan-your-activities/activity-packs/

Usage

How many Kits were used?

Follow up emails and usage reminders

Regular follow up emails were sent to act as reminders for teachers to use the Debate Kit. Initial emails were sent one and two weeks following the Kit being posted, to check that the teacher had received the Debate Kit. Where teachers told us they had not received the Kit, we offered to re-send the kit.

Teachers who confirmed they had received the Debate Kit were then sent emails 6, 10, 20, and 36 weeks later asking if they had used the Debate Kit, containing a friendly reminder to do so if they hadn't already. If teachers told us they had used the Kit, they were not sent additional emails. After responding to say whether or not they had used the Kit, teachers were invited to fill in a feedback survey.⁴

Responses show that 2 months after being sent the Debate Kit, 23% (51/219) of respondents had made use of it; after 3 months this figure increased to 42% (85/201), and to 63% (102/161) of respondents after around 6 months.⁵

These numbers are difficult to evaluate with response rates varying for each email (from 17% to 36%). For a more accurate estimation of the number of Debate Kits used, a randomised sample of teachers was used.

The main purpose of these follow up emails was not in establishing kit usage, but to serve as a reminder for teachers to use their Kits, and to direct teachers who had used the Kits to a feedback survey.

Randomised sampling group

Total estimated usage of the Debate Kit was established using a random sample of 100 teachers who were sent the Kit in January and February of 2018. This sample was checked against teachers who had already told us they had used the Debate Kit — 11 had — and the remaining teachers were sent an email asking whether they had used the Kit. Non-responders were followed up with reminder emails.

At time of writing, 50 of the randomised sample of 100 teachers⁶ have responded to let us know whether they have used the Debate Kit: 24 (48%) said they had used it.

⁴ See also: *Usage; Reasons for not using Kits and How Kits were used*

⁵ Teachers were not sent additional emails once they told us they had used the Kit. Respondent numbers here show respondents to each email, in addition to those who told us they used the Kit in a previous email.

⁶ Including the 11 teachers who had already confirmed that they had used the Debate Kit.

By extrapolation of this figure to the 1,598 teachers to whom the Debate Kits were directly distributed, we estimate that 767 of the Debate Kits distributed to teachers have been used with their classes.

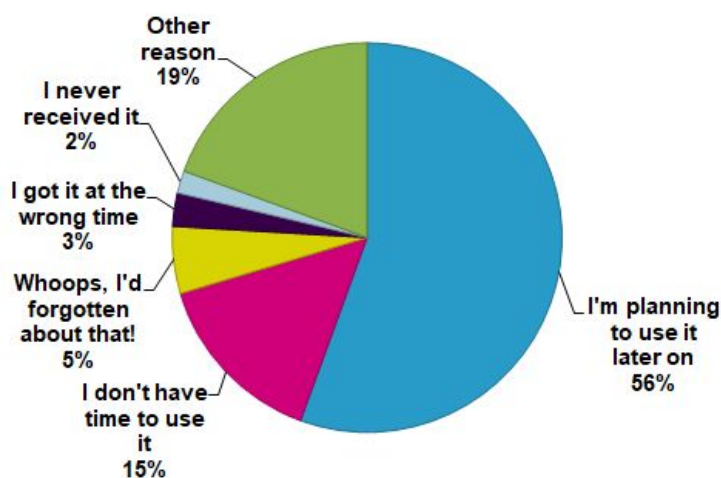
If we estimate that 24% of the 391 Kits sent out through other routes were used — half of the usage of the directly distributed kits — we find a figure of 94 of these Debate Kits being used.

Through this broad approximation then, we have an estimate of at least 861 Debate Kits distributed having been used with students.

Reasons for not using Kits

Teachers who responded to either the regular follow up emails, or within the randomised sample⁷ to say they had not yet used the Kit were invited to answer a feedback survey giving a reason.

Please let us know the main reason you've not used the Privacy Debate Kit (n=108)



The most common answer (56% of respondents) was that they were intending to use the Kit later on. Only 5% said that they had forgotten about receiving the Kit, suggesting that the follow up reminders did serve a purpose.

Respondents selecting “I got it at the wrong time” were asked to suggest when a better time may be; one teacher suggested that it was received too close to exam preparation time, another that it was received when the school was preparing to change timetables, and receiving the Kit earlier in the year would have been more useful for forward planning.

Respondents who had selected “other reason” were asked for details. A common answer (7 respondents) was that they had passed the Kit to colleagues or other

⁷ See also: *Usage; How many Kits were used?*

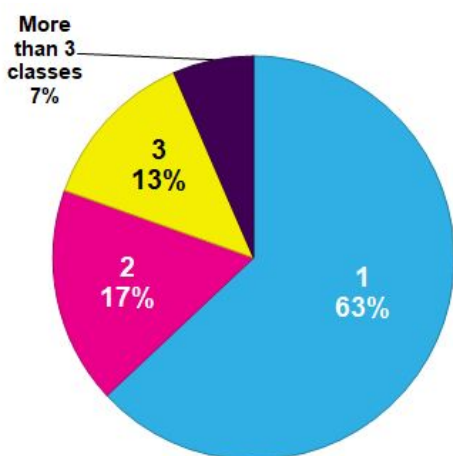
members of staff to use. Another common response (4 respondents) was that the Privacy Debate Kit did not fit well enough with the curriculum or the topics being taught.

“It didn’t really fit in with anything I was teaching, I would prefer something related to using the Earth’s natural resources as this appears on the GCSE spec. and is becoming more topical e.g. plastic in the ocean” — Teacher, feedback survey

How Kits were used

Teachers who responded to either the regular follow up emails, or within the randomised sample⁸ to say they had used the Kit were invited to answer a feedback survey about their usage of the Kit.

How many classes have you used the Privacy Debate Kit with? (n=46)



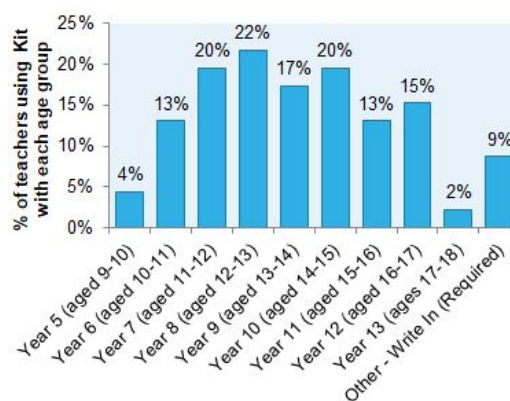
Most teachers responding to the feedback survey (63%) said they had used the Debate Kit with only one class. 37% had used the Kit with additional classes.

It is possible these data are skewed slightly by the feedback survey being sent out earlier than it would have been for previous Debate Kits. The survey being sent as part of a regular reminder to use the Kit meant that teachers first received the survey only six weeks after receiving the Kit. Teachers filling in the survey at this time may not have had time to use the Kit with additional classes.

Which age group(s) have you used the Privacy Debate Kit with? (n=46)

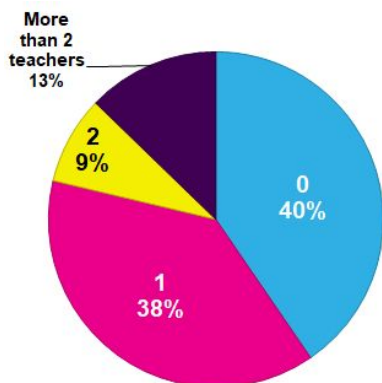
The Kit was most commonly used with students between 11 and 15 years of age (Years 7–10).

Other responses included trainee teachers and one teacher who had used the Kit with a Debate Club.

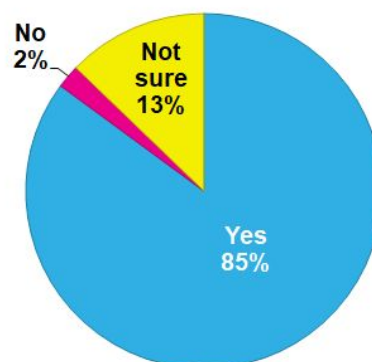


⁸ See also: *Usage; How many Kits were used?*

How many teachers have you lent the Privacy Debate Kit to? (n=47)



Do you intend to use the Privacy Debate Kit again? (n=47)



Nearly two thirds of teachers (60%) said they had loaned the Kit to another teacher, with only 40% keeping their copy to themselves. This indicates Kits are being used more than once across school departments.

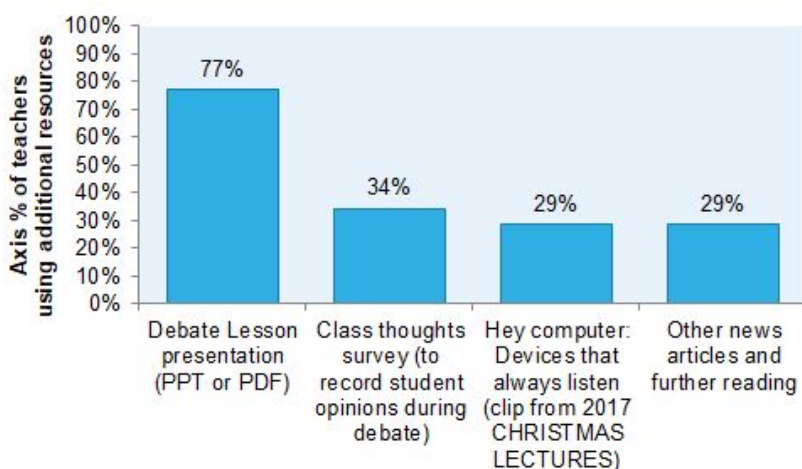
85% of teachers said they intended to use their Debate Kit again in the future.

Usage of additional resources and tools

Teachers were provided with a page on the Debate Kit site (debate.imascientist.org.uk/privacy-resources/) with references and additional resources relating to the Privacy Debate Kit. **Between 1 January and 1 October 2018 this page was viewed 1,941 times.**

As part of the feedback survey teachers were asked which of the additional resources they had made use of.

Which, if any, of the supporting resources have you used? (n=35)



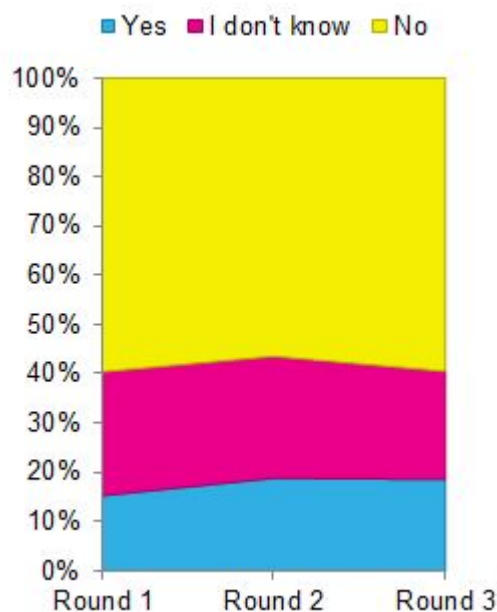
The Debate Lesson presentation has proved popular with teachers, with 77% of respondents saying they had used it.

Additionally, a simple online survey was provided to teachers to enable them to track changes in students' views during the activity. At time of writing, 62 classes had provided counts for all 3 rounds of the debate.

At three points during the session — before starting the activity, at the midpoint, and at the end of the debate — teachers were to ask their students whether *mobile phones should always be listening*, and log the number of responses for each. The point here is only to analyse how students' views change, and show that they are reflecting on the issues surrounding privacy.

It should be noted that the actual change in opinion could be under-represented as these data show only the overall opinion of the class, as opposed to the opinions of each individual. Indeed within some class groups an overall change of opinion can be observed in the data.

Should mobile phones always be listening? (Asked at 3 stages during the debate) (n=62)



After the debate had finished, additional questions were included to encourage the class to reflect on the activity; to share any key points that came up in their debate.

*“Some people changed their minds because they realised how useful technology can be for injured/older generations. The characters were good because they were all different and had their own opinions.” — **Teacher, class thoughts survey***

*“The information was detailed and made pupils think more deeply about the 'real issues' rather than simplistic 'I want privacy'.” — **Teacher, class thoughts survey***

Responses to this question show that some classes had been surprised by the information included in the Kit; there were students who changed their minds, and considered viewpoints they had not before; and there were classes which considered viewpoints and issues beyond those included in the Kit.

Aims and achievements

After telling us they had used their Debate Kit, teachers were asked to fill in a feedback survey⁹.

Teachers were asked what value they felt the Privacy Debate Kit had in terms of curriculum outcomes or other benefits to students:

A common response was that the Debate Kit helped students to consider wider issues science and technology, as well as ethics. Teachers also appreciated how the topic of the debate linked to current issues in society, and links to the Computer Science GCSE, as well as to PSHE:

“Current social media topic with some real ethical questions to explore; interesting views expressed.” — Teacher, feedback survey

“Allowed the children to explore topics that are relevant to them and opened their eyes to the issues surrounding technology. It also gave them a chance to share their thoughts and ideas, allowing them to have a voice.” — Teacher, feedback survey

“Great value to review the issues surrounding privacy for Computer Science GCSE topics on social, ethical, legal matters.” — Teacher, feedback survey

“Develops an awareness about easily accessible they are through their phones.” — Teacher, feedback survey

Teachers also commented on how the Kit helped students to develop communication skills, and encouraged thoughtful discussion among students:

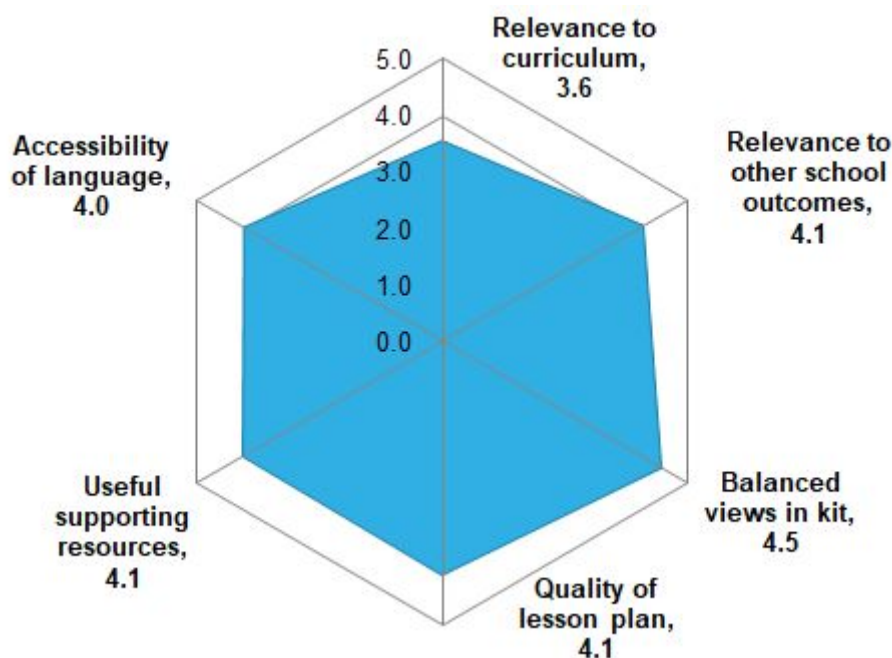
“Pupils develop communication skills including talking and listening. They were more aware of the differences between scientific and social understanding of specific terms and the importance of context.” — Teacher, feedback survey

“Good literacy resource, pupils formed own opinions based on facts presented and had to justify reasons. Good respectful interactions.” — Teacher, feedback survey

Finally, teachers noted the ease of use of the Kit, and how the format allows all the students in the class to join in and to have a voice.

⁹ See also: *Usage; How Kits were used*

How would you rate the kit for the following? (Mean scores, n=43-46)



Teachers were asked to rate different aspects of the Debate Kit out of 5. The Kit scored well in all areas, particularly in terms of providing balanced viewpoints, where teachers gave an average score of 4.5/5.

The Debate Kit scored the lowest in terms of relevance to the curriculum; that said, an average score of 3.6/5 is by no means a low score here.

Teachers were asked to comment on what they liked about the Privacy Debate Kit:

The Kit's ease of use was a common answer, with teachers also commenting on Kit's clarity and quality, as well as the quality of the supporting resources.

"Good useful resource. Enough to get pupils started but leaves lots of room to develop ideas." — **Teacher, feedback survey**

Additionally, teachers commented on the relevance of the subject, particularly with respect to Computer Science, as well as Successful Futures curriculum and DCF in Wales; one teacher noted that not many other resources cover this topic.

"It was easy to adapt, fairly open-ended and an engaging topic that was pertinent to young people today." — **Teacher, feedback survey**

Teachers also commented on how the Kit successfully engaged their students, and got them considering issues they had not thought about before.

“All Pupils of all levels were able to contribute to the debate and they had the opportunity to learn about how science is an important contributor to the privacy debate.” — Teacher, feedback survey

Teachers were asked how they thought the Kit could be improved:

A couple of teachers commented on the language used in the kit; that it could be made more friendly for younger age groups (one of these teachers told us they used the Kit with Year 5 age students, the other with Year 9).

“Kid friendly language, especially for those whose English (even for Mother Tongue speakers and readers) is not very high.” — Teacher, feedback survey

One teacher suggested incorporating “real case studies”, and another, scenarios more applicable to younger students.

Additionally, in the class thoughts survey¹⁰ one teacher noted that their students had struggled slightly with the debate and additional support could be included:

“[The students] struggled with the debate slightly - maybe a scaffolded help sheet could be included to help less confident students access the idea of debating.” — Teacher, class thoughts survey

Finally, when asked for any additional comments, one teacher responded:

“Thanks to all those involved in its creation. I just have trouble keeping track of it as other teachers keep taking it and don't give it back!” — Teacher, feedback survey

One teacher requested more Kits and resources focussing on social, ethical, legal, and environmental aspects of science and computer science. Another suggested a tip for using the Kits: that having an extra set of ears in the classroom can be helpful for the small groups.



Tweet about using the Privacy Debate Kit with Year 5 students. (twitter.com/DdR333/status/961964832256819200)

¹⁰ See also: *Usage; Usage of additional resources and tools*