

# RESEARCH SUPPORT MATERIAL FOR SCHOOL STUDENTS

An evaluation of the leaflets devised by  
TeenTech and the CILIP Information Literacy Group

November 2017



## Executive summary

In February 2016, TeenTech and the CILIP Information Literacy Group (ILG) produced a set of 11 leaflets to help secondary school students research effectively and be information literate – particularly in the context of the annual TeenTech competition. A year and a half on, this report is an evaluation of the leaflets, based on interviews with key personnel in schools that have used them; and on a survey of students.

Staff and students generally view the leaflets positively; the material is seen as engaging, nicely-designed – and versatile, in that it is used in practice by many different age groups. Although the leaflets were devised for students entering the TeenTech competition, they have potential as an education support resource that can contribute to, enhance and enrich the school curriculum – and some schools are starting to use the leaflets for this purpose, for instance in support of EPQ courses. They could usefully contribute to developing a range of important skills, such as research, critical thinking and problem-solving. They can provide practical help for assignments and independent learning, and they may provide a grounding for academic study in higher education. They can also form part of sets of other resources deployed by schools to support enquiry-based learning.

There is a case for tweaking the leaflets to improve their usefulness, for instance by including more links to online sources of information and colour-coding them. They might also be set out in a more obvious sequence than at present. But there are also more fundamental questions about how they might be used in future, not least in situations other than preparing for the TeenTech competition. There is thus a case for reflecting on (i) whether and how there should be engagement with school education professionals (including teachers and librarians) to discuss the wider relevance and applicability of the leaflets; (ii) on that basis, whether and how the leaflets might be promoted and disseminated among school education professionals; and (iii) whether in future to brand the material for generic use, and not just for TeenTech. In this vein, the leaflets could provide an opportunity for getting into a dialogue with such professionals in order to raise awareness of the relevance and importance of information literacy.

The leaflets might also usefully be adapted for different age groups, with a simpler version for younger students, and a more advanced one for older or more academically-minded students. A mobile and tablet friendly app might be envisaged to make the leaflets more visible and accessible. But at the same time, there is still demand for paper copies, for handing out in sessions or pinning up as posters; schools might welcome the provision of pre-printed copies on request. However, the development of an app, and the printing of large numbers of copies both carry financial costs, and there are questions about whether and how these might be borne.

The report includes a set of six conclusions and suggestions which expand on the points made above.

## Introduction

1. This report is the output of an evaluation of the research support material devised jointly by [TeenTech](#) and the [CILIP Information Literacy Group](#) (ILG), in the first instance to help school students who enter the annual TeenTech competition. The evaluation was commissioned by ILG and undertaken between June and October 2017 by Stéphane Goldstein of InformAll CIC. It mostly took the form of interviews with teachers, librarians and other support staff in a selection of schools; it also incorporates the results of a questionnaire-based survey of students. The report carries six broad conclusions, set out at the end of the document, and associated suggestions for taking things forward.

## Background and methodology

2. TeenTech was founded in 2008 to encourage secondary school students from year groups 7 to 13 to develop their interest, creativity and sense of innovation in science, engineering and technology. It does so chiefly through a competition comprising [themed awards](#), in 19 different categories, that recognise achievements and originality in school-based projects. ILG is a special interest group of CILIP, the Chartered Institute of Library and Information Professionals; it encourages debate and the exchange of knowledge in all aspects of information literacy.
3. One of these 19 award categories covers [research and information literacy](#). The award was developed in 2015 jointly by TeenTech and the CILIP IL Group, with the aim of rewarding students who demonstrate an ability to search across a range of resources, make excellent judgments about the information they have found and put it to ethical use in their project. To help students reflect on the questions that they need to address in order to research effectively and to be information literate, TeenTech and ILG compiled some research support material, consisting of [11 engaging leaflets](#), each focused on specific questions, such as how to make the most of a Google search and referencing research. They were designed as a set of documents on a single pdf file and are available freely, on the TeenTech and ILG websites, under a Creative Commons licence ([CC BY-SA 4.0](#)). The leaflets are listed at [annex 1](#).
4. The leaflets were launched in February 2016. They have been publicized and promoted through various channels, including the 2016 and 2017 CILIP conferences, and the feedback received has been positive. However, until now there has not been any formal review of their applicability and usefulness in the settings that matter most, i.e. in schools themselves. ILG therefore decided to commission an evaluation, with input from TeenTech, to ascertain the impact of the leaflets and to help determine whether and how ILG might continue supporting their dissemination and/or develop them as a resource.
5. The main part of the evaluation took the form of semi-structured telephone interviews with key personnel in eight secondary schools or sixth form colleges

across England; a total of nine individuals were interviewed between June and October 2017: 5 teachers (including department heads), 2 librarians and one senior administrator. The questions that formed the basis of the discussions are listed at [annex 2](#). Eight questions were put to all interviewees. A further three optional questions were asked where appropriate, about other resources that schools deploy to encourage a spirit of inquiry and innovation among students; these additional questions were more relevant to school librarians.

6. The eight schools (all in England) and the interviewees are not indicated, to preserve confidentiality. Instead, [table 1](#) below lists the types of school, their English geographical region the designations of the interviewees, along with the letter codes, in square brackets, used as shorthand for the schools when describing particular practices and examples in the text of this report. The schools are skewed towards the independent sector (4 out of 8), and are therefore not representative of school types across the country. There is also an inevitable bias towards those that have taken or are taking part in a TeenTech competition. The original intention had been to identify half a dozen schools and to interview two or three individuals (the librarian and one or two relevant teachers) in each case. Appeals to schools were made through a variety of channels, as follows:

- TeenTech networks and contacts;
- message to the CILIP School Librarians Group mailing list;
- message to the CILIP Information Literacy Group mailing list;
- message to the group of six librarians that led on the drafting of the leaflets;
- blog post on the CILIP Information Literacy Group website;
- announcement in CILIP's weekly e-newsletter;
- request made by the schools outreach team at the University of Manchester to schools in the Greater Manchester area.

With the exception of TeenTech, which engages largely with teachers, appeals were made essentially through library networks, on the assumption that librarians would be most likely to know about the leaflets. In the event, eight schools came forward. It was disappointing that the publicity effort did not produce a greater level of interest; the low numbers meant that it was not really possible for a more representative sample to be drawn from among the respondents. Moreover, in all but one case, only one individual agreed to be interviewed – which meant mostly not getting different perspectives within each school. Nonetheless, the interviews produced a wide and interesting range of views, sufficient to provide valuable insights into the current and possible future uses and variations of the leaflets.

**Table 1**

School name	Letter code used in the report	Designation of interviewees
Grammar school in North West	[A]	Head of Design, Technology and Art
Sixth form college in West Midlands (*)	[B]	- Library & Resources Manager - Co-director of Sixth Form
Voluntary controlled school in Yorkshire and the Humber	[C]	Community Enterprise Coordinator
Independent day and boarding school in London	[D]	Head of Design Technology
Independent school in East Midlands	[E]	Head of Library
Academy in East of England	[F]	Science Teacher / Head of Child Development
Grammar school in South West (*)	[G]	Librarian
Community school in East of England	[H]	Design & Technology Teacher

(\*) *Schools that have not taken part in TeenTech competitions*

7. The other part of the evaluation was drawn from a short questionnaire-based survey for students to complete. In addition to questions about which school they attend, their sex and their year group, the students were asked:
- which of the individual leaflets they had actually used;
  - to score, from 1 to 5 on a Likert scale, the usefulness of the leaflets;
  - to score, from 1 to 5 on a Likert scale, the design of the leaflets;
  - what they liked about the leaflets;
  - what they disliked about them;
  - whether they had been taught any of the topics covered by the leaflets;
  - if so, who taught them (teacher, librarian or both).

All the schools that were approached were asked to disseminate this to relevant pupils. Although most of them agreed in principle, returns came from just four of the schools, with responses from 19 individuals. Although this is not a statistically significant sample, all the student respondents have actually used the leaflets. There were also a small number of returns from a sixth form college in the North West that circulated the questionnaire, but that did not take part in the interviews.

## Analysis

8. The TeenTech competition, and particularly the research and information literacy award, provided the rationale for producing the leaflets. It is therefore not surprising that they have been used to support students entering the competition in

six out of the eight schools, for the most part during school year 2016-17; and that in practice, awareness of them is limited largely to teachers and students involved in the competition. But it is noteworthy that two of the schools have deployed them solely in settings other than TeenTech; and that, to a more or less greater extent, all of them see value in this material as learning and/or research aid for students in the broader setting of the school's curriculum or its strategy. Indeed, most of the comments garnered during the interviews related to the leaflets' general applicability and characteristics, rather than the uses to which they have been put for the purposes of the competition.

### *Deployment and usage of the leaflets*

9. A striking feature of the leaflets' deployment is the extent to which students of a wide range of ages use them, from year groups 6 to 13 – although it must be stressed that this spread is across rather than within the different schools; with one exception, in any single school, their use is mostly limited to one or two year groups. This reflects the diversity of year groups that have been entered (or are currently being entered) in the TeenTech competition, as listed below:

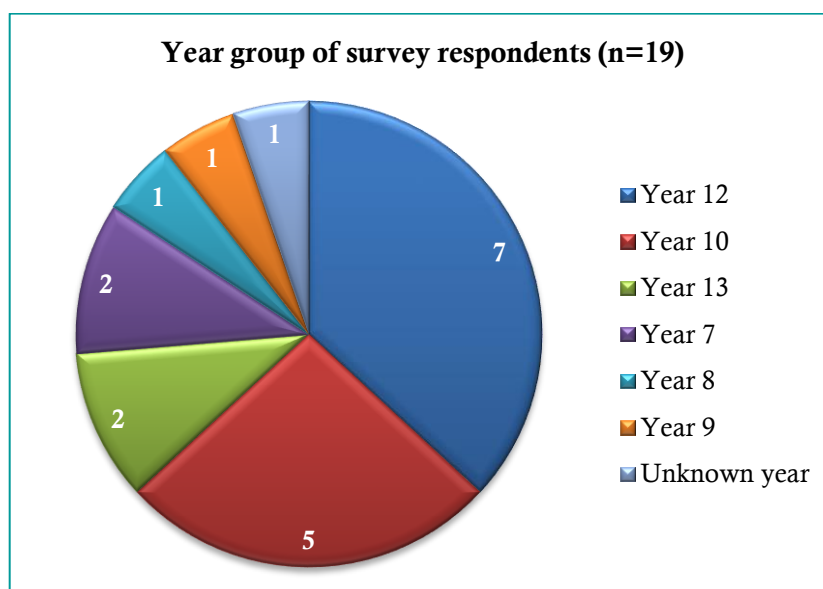
- Grammar school in North West [A]: years 10 and 12
- Voluntary controlled school in Yorkshire and the Humber [C]: year 7
- Independent day and boarding school in London [D]: years 9 and 13
- Independent school in East Midlands [E]: years 6 to 12; the school deploys the leaflets across all year groups, as part of its strategic commitment to enquiry-based learning for all its students
- Academy in East of England [F]: did not indicate
- Community school in East of England [H]: year 9

One interviewee suggested that in principle, the leaflets are appropriate for the full age range at the school, because they are written in what he termed 'pupil speak'; they read as if they have been drafted by someone who knew exactly what terms to use to make them accessible to secondary school students of all ages [A]. There is a further view that the leaflets, by being as simple and engaging as possible, are suitable for all year groups, but their real value comes from the increasingly sophisticated ways that they can be deployed throughout students' school careers over the years [E] (others have suggested that the leaflets might usefully be slightly adapted to suit the needs of students of different ages; see paragraph 22).

10. There can be obstacles too to spreading the use of the material across year groups: one interviewee expressed concern at the likely difficulty of promoting TeenTech and the leaflets for students beyond year group 8, because the school might take the view that the competition provides too great a distraction from preparation for exams such as GCSE [C].

11. The responses received from the student survey confirm this spread, although they are slanted towards the Sixth Form, with almost half of them from year groups 12 and 13. The breakdown is indicated in **figure 1** below.

**Figure 1**



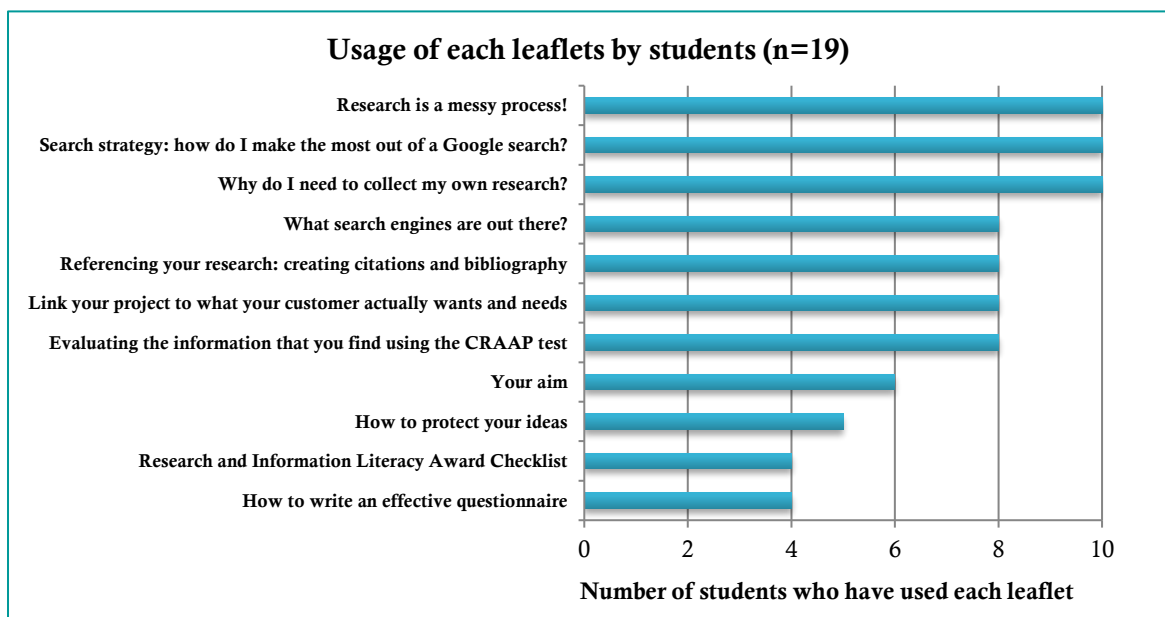
12. As suggested above, the requirements of the TeenTech competition represent only part of the picture. Only two of the leaflets, 'Research and Information Literacy Checklist' and 'Thinking about your Topic', are couched in terms relevant directly to the TeenTech competitions; the remaining nine are more generic. Two of the eight schools have used the leaflets purely outside the context of TeenTech [AT, G], but more significantly, all the schools have either deployed them in wider settings, or see a strong case for doing so. In particular, there is recognition of the value of the material as an aid to study and/or learning. In practice, to date, the leaflets have been used variously to:
- act as a stimulus, encouraging students to pursue particular interests [A];
  - maximise their learning potential and enjoyment [A];
  - provide practical tips [B];
  - help with assignments [G];
  - serve as guides and prompts for seeking advice from teachers [C];
  - illustrate and provide practical meaning to the concept of enquiry-based learning [E].
13. Some of the interviewees highlighted the school contexts or environments in which the leaflets are introduced and presented to their students. Three of the schools reported that they run sessions (in one case, as part of an open workshop practice,



run through lunchtime drop-in gatherings) where students receive training and advice on research and study skills [A, B, H]. But the leaflets' usefulness may be limited if they are simply handed out to students without explanation; they become especially meaningful when teachers embed them in sessions and go through them with students in a structured way, topic by topic [H]. An alternative approach, favoured by one interviewee, is to make use of prominent display boards onto which some of the leaflets are pinned [D].

14. The survey questionnaire asked the students which of the leaflets they had actually used. The responses point to a variability of usage, which may be an indicator of the respective value of the individual leaflets. As outlined in **figure 2**, three of them have been used by over half of the respondents; two of those three relate to good research principles and methodology. Conversely, three other leaflets have been used to a much lesser extent, by around a quarter or less of the respondents; these three cover some of the more focused themes and may therefore be of more limited or specialist interest. Finally, in their survey feedback, a couple of the students also indicated their liking for particular leaflets, on search engines and protecting ideas.

**Figure 2**





15. In their responses to the survey, several students indicated that the leaflets describe concepts which they have already been taught, thereby confirming the extent to which the material complements their prior coursework. This covers areas such as research methodology, the use of search engines, the use of websites, drawing up bibliographies and referencing. Some of the students (12 out of the sample of 19) also indicated who had actually taught them these concepts: 6 said that it was a combination of a teacher and the school librarian; 5 indicated that it was the librarian alone; and one said that it was a teacher.

#### *The leaflets and the school curriculum*

16. The leaflets are thus seen as having a place in enhancing or enriching the curriculum. But to a large extent, they haven't yet been deployed extensively, so that their actual user base remains relatively limited. The interviewees spoke about them largely in aspirational terms, envisaging the potential that they represent as educational support material. For instance, one school reported that the leaflets could be useful in the context of free study time (non-contact time), particularly for sixth formers [A]. The material could help them cope with independent study, and provide a succinct and structured methodology for what they need to reflect on – especially for students who are less confident about planning their studies and developing their analytical skills. In this view, the leaflets can deliver an impetus, a sense of direction and a degree of stability for students. Other interviewees felt that the leaflets could have value for instance as:
- tools to help develop the research and problem-solving skills that are inherent to certain disciplines; three interviewees, between them, suggested that some or all of the leaflets are well-suited to subjects such as design and technology, computing, philosophy, ethics, geography and health and social care [B, C, F];
  - a means of encouraging research skills and critical thinking; as such, the leaflets could be an aid to course work and projects (particularly relevant for EPQ courses – see paragraph 17) [G];
  - a contribution to the tutoring that is given as part of pastoral support [B];
  - preparation for the learning expectations of higher education [B];
  - preparation for the 21<sup>st</sup> century workplace, by helping to underpin lifelong soft skills such communications and problem-solving; one interviewee saw the

leaflets as a contribution to the head teacher's commitment to promoting the place of innovation at work [D].

The leaflets thus contribute to study, research and the acquisition of skills. They are also often seen as a starting point for subsequent enquiry and discussion, and from which students might derive interpretations [C, E, H].

17. One of the schools is exceptional in that, over the past ten years, it has developed an ethos and strategy, led by the library, aimed at encouraging and nurturing enquiry-based, independent learning, for all its students [E]. A practical application of this ethos is a model – which draws from a [framework](#) devised by the New York City Department of Education – articulated around six defined stages in an enquiry process cycle:



The leaflets are finding a natural place within the systems devised to implement the school's model; once they are fully deployed, they are expected to contribute meaningfully to it. For instance, the library is currently developing the idea of a research and enquiry journal for students to complete, articulated around the six stages of the cycle. Eventually, an electronic version of the journal could be designed to incorporate a range of supporting resources, including the leaflets – thus enabling the integration of students' project descriptions, progress reporting and resources, as a means of encouraging good practice.

18. Just as the leaflets may apply to different year groups, they also have the potential to help students prepare for different exams. Three of the interviewees indicated that they have started using the leaflets for students on Extended Project Qualification (EPQ) courses [A, B, G]. This is not surprising, given the emphasis that EPQs place on project-based coursework, typically involving an investigative process and the writing of a dissertation. For similar reasons, the leaflets are seen as

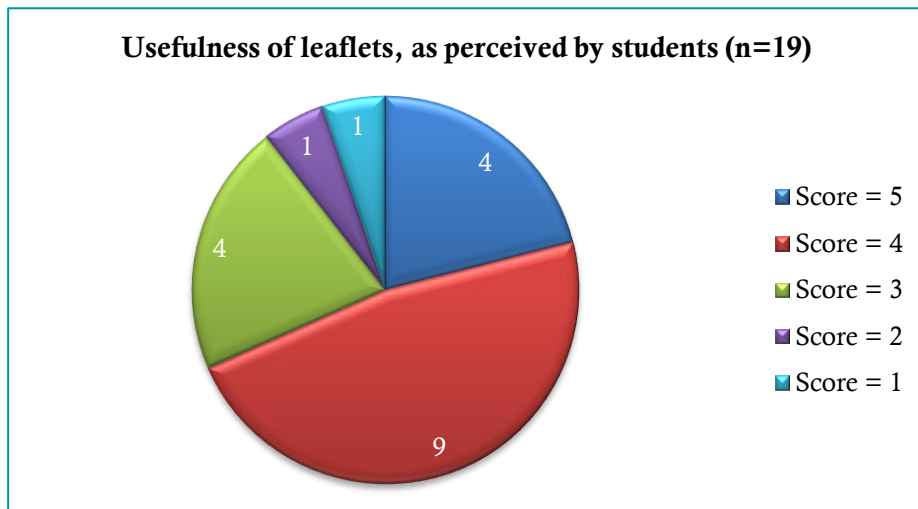
valuable in the context of preparing for the International Baccalaureate, which is also founded on enquiry-based learning [E]. But there could also be a place for them, in future, for A Level study, particularly for those subjects where research skills are deemed important [B, E, F, G, H]. Conversely, the leaflets could also be relevant as an introductory framework for younger students, working towards their GCSEs (again, this might apply in particular to certain subjects such as computing, where online searching methodologies are relevant) [A, B, C]; and for students, from year group 9 upwards, preparing for the Higher Project Qualification (HPQ) [G].

19. The leaflets are intended for students but interestingly, a couple of the interviewees saw the material's value for teaching staff as well. Teachers do not always have an understanding of good research practice, and sometimes their awareness of issues relating to information literacy may be less than their students. The leaflets could thus play a useful role in developing teachers' awareness of what needs to be done to promote research skills [E]. And even where teachers are versed in critical analysis, their skill levels may be lesser with regards to practices such as advanced online searching; in this instance too, the leaflets could usefully help to raise awareness [G].

#### *Content and design of the leaflets*

20. The views set out in the preceding section underline the feeling of all interviewees that the leaflets carry helpful and purposeful content. As set out in **figure 3**, the responses received from the student survey confirm this. When asked whether they found the leaflets useful, 13 out of 19 respondents scored them 4 or 5 on a five-point Likert scale; only two of them gave them low scores (1 or 2). Students' views on what they like about the leaflets were equally positive, with many emphasising the clarity of the material, along with its effectiveness at putting across points simply, clearly and in a way that is easy to understand. Some students variously highlighted the catchiness of the leaflets, the way in which they are straight to the point and their step-by-step approach. Echoing these views, some of the interviewees also commented on the clarity and user-friendliness of the material [C, G, H]. However, a couple of the students felt that the leaflets are not so useful, because they have previously been taught the concepts described in the material, as outlined at paragraph 15.

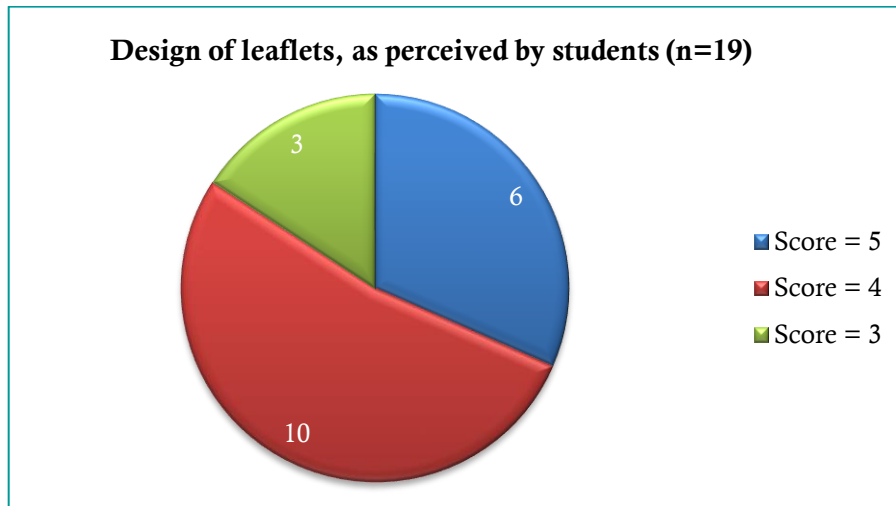
#### **Figure 3**



18. It should not be forgotten that there are 11 separate leaflets, and that although as a series they are perceived favourably by both students and school staff, there are variations in views about each of them. The data on students' usage of each leaflet, outlined in paragraph 13 and **figure 2**, may be an indicator of this variability. More specifically, a couple of the interviewees felt that some of the leaflets are more engaging than others, whilst others are too wordy or text-rich, thereby detracting from their attractiveness [B, D]. In the survey, some students echoed this view by suggesting that in some cases, the material is too dense and not sufficiently visual (but conversely, other students felt that some leaflets could benefit from more detail and fewer graphics). One interviewee did not like the use of the CRAAP acronym in the 'Evaluating the information that you find' leaflet, feeling that it is an unfortunate term to use with teenagers [G] – although, given that CRAAP is an established and recognised concept, it may be difficult to avoid referring to it. In another school, the interviewee suggested a hierarchy of usefulness, with the leaflets focusing on research rationale, resource discovery and referencing being deemed most useful; and those covering questionnaire design and customer needs seen as least relevant to the needs of students [B].
20. The design and layout of the leaflets is also viewed positively. There is widespread and explicit recognition of their attractiveness, their visual impact and the way in which they present complex information in a way that is easily understandable. Speaking as someone with design expertise, one of the interviewees stated that the leaflets are exceptionally well-designed, by avoiding crowding of text, making good use of blank spaces and following the rules of good desktop publishing [A] (although this partly conflicts with the view that some of the leaflets are too wordy, as outlined at paragraph 18). The professionalism of the design was also noted [E]. The use of bright colours, attractive to teenagers, was commented on favourably [B] – although conversely one student in the survey indicated that the leaflets contain too many bright colours. One interviewee was impressed that the colours render well when photocopied in black and white – adding to the versatility of the material [A].

21. The students' views on the design of the material are even more emphatic than their feedback on its usefulness, as indicated in **figure 4**. When asked what they thought of the design, 16 out of 19 respondents gave a score of 4 or 5 on a five-point Likert scale, with none giving them low scores (1 or 2). Some students commented further on the catchy and colourful design.

**Figure 4**



#### *Possible improvements to the leaflets*

22. Notwithstanding the favourable views expressed, there were also suggestions about how the leaflets might be improved. Chief among those was the view from three interviewees that the material could benefit by being adapted for different year groups [C, F, H]. As outlined above (paragraphs 9-10), the leaflets are deemed appropriate for the use of a range of year groups. But there is a case for couching them in simpler language for younger students (e.g. in year groups 7 and 8), for those who are less academically-minded (e.g. in the context of BTEC courses, where research methodologies might apply) or for those with moderate learning difficulties. This would allow for a gentle or tailored introduction, at a relatively early age, of concepts which become increasingly pertinent as students progress through their school careers [C, F, H]. Conversely, a more advanced or sophisticated version could be useful for sixth form students, especially as preparation for the skills needed for undergraduate study [F, H]. With their current wording, the leaflets might be seen as ideally-suited for students in year group 9, 10 and/or 11 [C, H].
23. Another suggestion is that the leaflets might be arranged in a more logical sequence, perhaps reflecting a cycle with a clear starting point – the order in which the material is presented on the pdf file appears somewhat random at the moment

[B, H]. A possible approach to such sequencing might start with the rationale for undertaking research ('Why do I need to collect my own research?', which happens to be the first in the series in the pdf), moving on to the mapping of ideas ('Your aim'), then looking for and discovering information ('Evaluating the information that you find'), followed by the more focused leaflets covering areas such as referencing. Some form of colour coding, to help illustrate the sequence, might also be opportune [B].

24. A few further possible improvements were suggested:

- the leaflets could usefully carry signposting about where to go online for additional information (at present, just a couple of them do so), so that each topic might be developed further [B];
- there could be value in the listing of key words, perhaps in the form of a glossary [D];
- the leaflet on referencing would benefit from an explanation of different referencing systems [B].

It would also be opportune for the material to be revised and adapted periodically, even if only slightly, to reflect the evolving nature of the information and technological environments; there is a risk of obsolescence if that doesn't happen [E]. There would be value in consulting about the scope and content of any additional resources that might be developed [A].

### *Leaflet medium*

25. A further consideration, in addition to the content and appearance of the leaflets, is the medium in which they are currently used – and the medium that schools would ideally favour. At present, almost all the interviewees reported that they print hard copies of at least some of the leaflets, for the most part to distribute to students; sometimes, this is done on demand. This reliance on the traditional printed medium is justified for instance because of its immediacy and the capacity to hand out leaflets in classes. In a couple of schools, they are pinned up on a departmental notice board or in the library [D, G]. Sometimes, laminated copies are produced [E]; in other cases, they are printed as booklets or packs [H]. But as well as resorting to print, schools also take advantage of the material's availability as a pdf file, at least partly for convenience or to reduce costs and as part of drives to go paperless. Three interviewees reported that the pdf is shared online, variously through MS Office365, the school's website or its virtual learning environment [A, B, G]. One school is looking to make greater use of [Google Classroom](#), to allow access to resources both on site and at home, and the leaflets could form part of that offer [H]. As noted at paragraph 17, another school aspires to develop an electronic version of a research and enquiry journal which would incorporate resources such as the leaflets [E].



26. Over and above what is actually done in practice, most interviewees made suggestions about what medium would enable them to make the leaflets more widely available. Two broad views were expressed. Firstly, there was a wish for good quality pre-printed copies of the leaflets to be made available to schools, as in-house printing or photocopying can be expensive, and the quality of school printers isn't always good. Laminated and/or larger A3 versions would be especially useful. One interviewee even indicated that the school might be willing to pay for the material, assuming it were reasonably priced [B, D, F]. Secondly, most interviewees viewed favourably the creation of a mobile or tablet-friendly electronic version of the leaflets, perhaps in the form of an app with interactive elements. This could be a good way of appealing to students and encouraging regular use; it would also be more convenient than trawling through a website [A, B, C, D, F, G].

#### *Awareness of the leaflets*

27. The six schools that have entered the TeenTech competition have, not surprisingly, become aware of the leaflets through TeenTech channels. For instance, one of the interviewees came across the material on a recent TeenTech judging day [D] and another picked up on them through involvement in TeenTech's other '[City of Tomorrow](#)' competition, having come across that as a result of it being promoted by the school's local authority [C]. An interviewee in one of the schools that did not enter the TeenTech competition became aware of the material purely through her previous work as an academic librarian [B]. There is also a view that the leaflets are somewhat buried on the TeenTech website, and that this doesn't help with visibility [H].
28. Within the respective schools, awareness is generally limited to one or two members of staff – teachers or librarians – and relatively small clusters of students. This is perhaps to be expected, given that for the most part, schools did not enter the TeenTech competition until 2016-17. But as outlined at paragraph 18, in some cases there are plans to roll out the deployment of the leaflets on a larger scale, not just to help with the competition but also to promote their broader use as a study aid; it can therefore be assumed that awareness will increase in the coming year. At one school, lunchtime sessions are used to raise awareness of extracurricular enrichment programmes, such as [Young Engineers](#) and TeenTech – students' involvement in the former often leads to interest in the latter [A].

#### *Complementarity with other resources*

29. As outlined above, the leaflets are either used or perceived as education support material, within the context of the TeenTech competition or more broadly in support of curricular activities. But however useful, they are not the only study aid tool available, and several interviewees pointed to the complementarity between them and other resources deployed by schools. As already noted, at one school, the leaflets are being integrated into an ambitious model to support enquiry-based, independent learning (see paragraph 17). Interviewees flagged up other resources that cover broadly the same territory. Some of these are free, for instance the



[Teacher Toolkit](#) website, which incorporates a useful and frequently updated blog [A] and [@TheDesignClass](#) Twitter feed, which is focused on design, engineering and technology teaching [A]. But in other cases, resources are partly or entirely behind paywalls, and require subscriptions. These include:

- [Hodder \(Philip Allan\) educational material](#), including a very wide range of textbooks, magazines and revision aids [B];
- the [Palgrave series](#) of education books; two titles were mentioned in particular, both by Stella Cottrell: the *Study Skills Handbook* and *Critical Thinking Skills* [G];
- the [EPQ Toolkit for AQA](#), geared specifically for students on EPQ courses [G];

For those schools that have the budget, there are subscriptions to general academic or pre-academic resources, for instance [JSTOR](#), [Jisc learning and research resources](#) and EBSCO's [Advanced Placement Source](#).

## Conclusions

30. It is still relatively early days in the life of the leaflets which, for the most part, have only been deployed for a year or so – and usually on a relatively small scale. Conclusions regarding their actual usage are therefore of a preliminary nature. However, the way in which the interviewees perceive their potential usage provides valuable pointers for how they might be deployed in future. And it is clear from the views garnered that there is interest, if not enthusiasm, for making more extensive use of this material in the context of both the TeenTech competition and the broader school curriculum. The six conclusions below, along with associated suggestions for taking things forward, reflect the broad uses which the leaflets could be put to, as well as the opportunities for promoting information literacy. The suggestions are essentially for the attention of ILG and TeenTech, but also conceivably for the CILIP School Libraries Group.

- **Conclusion 1**

The leaflets are versatile and may be used by students of all ages during the course of their progress through secondary school. Students and staff are generally pleased with them. This underlines their success as a well-designed and well-thought through resource.

**Suggestion:** to consider the case for producing adapted versions: a simplified version for younger students, typically in year groups 7-8; and a more advanced version for older or more academically-minded students, particularly in sixth form.

- **Conclusion 2**

Although the leaflets were compiled for students entering the TeenTech competition, they have potential as an education support resource that can contribute to, enhance and enrich the school curriculum. This is particularly the case for courses involving independent study and research, such as those leading to EPQs and the International Baccalaureate – but possibly for other courses too.

**Suggestion:** to reflect on (i) whether and how ILG, TeenTech and others should engage with school education professionals (including teachers and librarians) to discuss the wider relevance and applicability of the leaflets, and their complementarity with other relevant learning resources; (ii) on that basis, whether and how the leaflets might be promoted and disseminated among school education professionals, beyond the context of the TeenTech competition; and (iii) whether in future to brand the material for generic use, and not just for TeenTech.

▪ **Conclusion 3**

Aside from the possibility of adapting them to different age groups, the leaflets might benefit from a few refinements, regarding both content and design.

**Suggestion:** to consider producing a new version during 2017-18 that takes account of comments outlined in this report.

▪ **Conclusion 4**

The use of the leaflets might be increased if measures were taken to make them more visible, easily available and/or accessible.

**Suggestion:** to reflect on whether there is justification for (i) providing schools, on request, with pre-printed copies of the leaflets in A4 and A3 formats; (ii) developing an app or some other interactive, mobile and tablet-friendly version of the leaflets.

▪ **Conclusion 5**

There are cost implications, in terms both of financial resources and effort, for taking forward the suggestions set out in conclusions 1-4.

**Suggestion:** to consider whether such costs can be borne, and whether there are prospects for seeking financial support to fund any further development.

▪ **Conclusion 6**

The leaflets provide a good opportunity to raise awareness, in the crucial setting of secondary schools, of the relevance and importance of information literacy.

**Suggestion:** building on the suggestions in conclusion 2, to consider how the leaflets might provide an opportunity for engaging in a dialogue with school education professionals and other relevant players, such as educational policy makers and players responsible for curriculum design.

*Stéphane Goldstein*

*InformAll CIC – [www.informall.org.uk](http://www.informall.org.uk)*



*November 2017*

## Annex 1

### List of TeenTech / ILG leaflets

The 11 leaflets are listed below in the order in which they appear on the pdf document:

1. Why do I need to collect my own research?
2. How to protect your ideas
3. Evaluating the information that you find using the CRAAP test
4. Search strategy: how do I make the most out of a Google search?
5. Link your project to what your customer actually wants and needs
6. Research is a messy process
7. How to write an effective questionnaire
8. Referencing your research
9. Research and Information Literacy award checklist
10. What search engines are out there?
11. Your aim – thinking around your topic

## Annex 2

### Questions used during the interviews with school staff

- What awareness is there of the leaflets?
- Is there a demand for them?
- Are they being used in practice?
- Are they deemed engaging and useful (not just in the context of TeenTech award applications, but generally as a study aid)?
- What (if any) feedback has there been?
- Do the leaflets dovetail with and/or enrich the school curriculum?
- What medium is most suitable for their dissemination: paper copies, pdf, formats suitable for mobile/portable devices?
- In what way might they be improved?

#### *Possible additional questions for school librarians:*

- What other resources, online or otherwise, schools use to foster among students the sort of study and research approaches described in the ten TeenTech/ILG leaflets.
- The scope for TeenTech and/or ILG to develop further material that could complement such resources.
- The value in providing schools with access to scholarly material, e.g. through an extension of the Access to Research scheme.