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Peer-led information literacy training: a qualitative study of students' experiences of the NICE Evidence search Student Champion Scheme

Abstract

Background: The National Institute for Health and Care Excellence (NICE) Evidence search Student Champion Scheme aims to enable undergraduate health and social care students to teach their peers skills for information literacy (IL), thereby encouraging future evidence-based practice.

Objectives: To analyse the Student Champions' teaching methods; discover what effects the Scheme had on their IL; and uncover any differences between disciplines.

Methods: 51 reflective reports, written by Student Champions and submitted to NICE, were thematically analysed using a non-linear six-stage model. Four health disciplines from academic year 2017/18 were featured.

Results: (i) Students preferred active teaching methods; (ii) reported benefits of participation included gaining/developing new skills and increased confidence; (iii) students believed that participating improved their skills for IL; (iv) multiple recommendations for improving the Scheme were given; and (v) students wanted the Scheme to be offered earlier in their degrees.

Discussion: Champions from all disciplines positively benefit from participating in the Scheme. However, they also have concerns which are not well-documented in the literature.

Conclusion: Student Champions have overall positive experiences. There is demonstrated improvement in their IL and they become familiar with a useful evidence-based practice resource. They also offer recommendations for future improvements to the Scheme.

Key Words

Digital information resources Evidence-based practice Information literacy Qualitative research Students, health Teaching

Key Messages

- 1. The NICE Evidence search Student Champion Scheme encourages the development of evidence-based practice amongst health students through a peer-led information literacy training programme.
- 2. Active teaching methods, such as allowing learners to interact with the Evidence search website themselves, are considered more engaging and memorable by students.
- 3. Students report that participating in the Scheme helps them to increase their confidence and gain or develop skills for information literacy and evidence-based practice.
- 4. Not all of students' concerns about being involved in a peer tutoring scheme are addressed by the current literature.

Introduction

The National Institute for Health and Care Excellence (NICE) introduced the Evidence search (ES) Student Champion Scheme (SCS) in 2011. In developing ES, NICE has brought together high quality, pre-appraised evidence from hundreds of trusted health and social care sources, including systematic reviews, guidance, and information for the public. No registration is necessary and, in most cases, full text results can be accessed.

The ultimate aim of the SCS is to increase the uptake and use of evidence-based resources and guidance through a programme of education and support. The SCS is a 'Train the Trainer' programme in which NICE Information Specialists, often with local academic and library staff input, work with Student Champions to give them the knowledge, tools, and confidence to facilitate ES sessions for their peers. Between May 2011 and March 2018, 1,809 undergraduate students from 50 schools of health and social care have been recruited as Champions; together, they have taught over 13,000 of their peers (Weist, 18 April 2019).

This research specifically examines the experiences of the Student Champions. It is therefore situated at a confluence of three key strands: peer teaching between undergraduate healthcare students, which aims to improve their skills for information literacy (IL), in order to facilitate evidence-based practice (EBP). Currently, there is a limited amount of literature which combines these three strands (Rees et al., 2014; Rowley, Johnson, Sbaffi & Weist, 2015; Sbaffi, Hallsworth & Weist, 2018; Sbaffi, Johnson, Griffiths, Rowley & Weist, 2015; Terry, Davies, Williams, Tait & Condon, 2019).

This research provides a novel contribution to the existing literature as it is the first to look for any differences of experience between the four disciplines which participate in the SCS (dentistry, medicine, nursing/midwifery, and pharmacy). Further, it strengthens the evidence base behind peer tutoring by offering fresh insights into both the benefits peer tutors feel they gain through participating and the challenges they experience in delivering their teaching.

Aims and Objectives

The aim of this research is to investigate the experiences of Student Champions involved in the SCS in the academic year 2017/18.

The objectives of this research are:

- 1. To understand the impact of participation in the Scheme on the IL skills of Student Champions;
- 2. To explore the differing methods of peer teaching employed by Student Champions;
- 3. To investigate whether any significant differences exist between the participating disciplines; and
- 4. To offer recommendations to NICE which will contribute to the future improvement of the Scheme.

Literature review

Evidence-based practice (EBP)

EBP requires healthcare workers to have excellent IL skills to successfully locate, retrieve, and critically appraise evidence. Glasziou, Burts and Gilbert (2008) described search skills as being "as essential as skills with a stethoscope" for healthcare practitioners (p.704). Therefore, several studies have been undertaken into the ways in which healthcare workers seek information (Bryant, 2000; Clarke et al., 2013; Davies & Harrison, 2007; Younger, 2010).

However, there is a concern that healthcare practitioners are not always searching for evidence efficiently or critically appraising it effectively. This concern extends to both qualified practitioners and those still in training. Cullen, Clark and Esson (2011) found that the junior doctors they studied retained little of the IL skillset they had been taught during the pre-clinical years. Further, Veeramah (2016) found that one-third of nurses studied felt that they did not have the skills to critically evaluate the evidence they found; a result similar to that previously found by Bucknall, Copnell, Shannon & McKinley (2001).

Most professional regulatory bodies require their members to be confident users of evidence in their practice. Findings of lack of confidence and/or ability amongst healthcare practitioners in their own information skills are therefore troubling. For example, the Nursing and Midwifery Council (NMC, 2015) requires nurses and midwives to "[a]lways practise in line with the best available evidence" (p.7). It is clear that more effort must be made to ensure that the next generation of healthcare practitioners have a higher level of both confidence and competence in their IL skills for EBP.

Information literacy (IL)

Due to these findings, there is therefore a concern about how to best structure IL teaching for healthcare students to help ensure that they become evidence-based practitioners.

Broadly, IL is used to describe the skills and practices associated with people and their handling of the information in their lives. Multiple definitions of IL exist, with different practitioners, academics, and organisations each having their own (Horton, 2007). The most recent definition is:

"The ability to think critically and make balanced judgements about any information we find and use. It empowers us as citizens to reach and express informed views and to engage fully with society." (Chartered Institute of Library and Information Professionals Information Literacy Group, 2018)

Skills for IL can be taught by librarians in a multitude of ways, the evidence base for which is conflicting. One teaching method is embedded librarianship (Drewes & Hoffman, 2010). This model sees librarians become active members of their users' community, rather than waiting for questions to come to them (Shumaker, 2009). An example of this in an academic context would be a librarian attending classes and actively involving themselves in class discussions (Shumaker, 2009). In an embedded librarian model, IL teaching is not seen as separate from, or as an optional supplement to, an existing course, as it is in 'one-shot' sessions. Instead, librarians work as equal partners with

faculty members to embed IL into the course over its duration (Hoffman, Beatty, Feng & Lee 2017). Embedded librarians can offer support to students with developing their searching competency and with critically appraising the information they find (Larsen, Terkelsen, Carlsen and Kristensen, 2019).

In problem-based learning for medical students, Bowler and Street (2008) found that an embedded librarian conspicuously teaching IL as a specialised skill had a positive effect on students' research scores. Interestingly, Bowler and Street also found that embedding IL without drawing attention to it as a specialised skill did not result in the same positive score improvement. However, Koufogiannakis, Buckingham, Alibhai and Rayner (2005) found that embedding a librarian did not have any effect on students' information-related question scores in their final exams. Moreover, both papers caution that embedded librarians have significant time and resource costs, which would not be sustainable by all libraries.

Less resource-intensive alternatives include the 'one-shot' IL session. These are one-off courserelated sessions, usually requested by faculty and then delivered by librarians. They typically last about one hour and are often delivered in a traditional lecture format. The focus is usually on relatively procedural skills, such as how to use specific databases or how to reference in a particular style (Gil, 2017). The effectiveness of 'one-shot' IL teaching has been questioned in the literature. Both Brettle and Raynor (2013) and Cheng (2003) found that this type of teaching can improve students' skills in the short term. However, 'one-shot' sessions have been criticised by others for not increasing student competency and for not being effective in the long term (Ilic, Tepper & Misso, 2012; Walker & Pearce, 2014). Provision of a series of IL sessions has therefore been suggested as preferable (Carlock & Anderson, 2007; Farrell, Goosney & Hutchens, 2013; Ilic et al., 2012), though this option is not always permitted by the relevant faculty.

For librarians who are constrained by the 'one-shot' format, there are a number of methods which can be used to maximise the limited time available. Gil (2017) describes the use of an active learning approach, whereby undergraduate business students were given a series of hands-on activities involving searching specialist subject databases for specific information. Scott (2016) used a similar active learning approach for postgraduate music students. Rather than merely demonstrate the different database functionalities, Scott engaged her students with actively evaluating and asking critical questions of the sources they were using. Though these sessions are still limited by being one-shots, using active learning techniques such as hands-on exploration and critical questioning can help to engage and intellectually challenge students (Scott, 2016).

Peer teaching

Peer teaching, also known as 'peer tutoring', is a form of teaching whereby students teach each other, with no or limited intervention from academic staff. It has two main forms. 'Equal peer' has students from the same educational year teach each other (Goldschmid & Goldschmid, 1976). In contrast, 'near-peer' features students from different educational years teaching each other, though they are usually from the same educational level (for example, third year undergraduates teaching first year undergraduates) (Ten Cate & Durning, 2007a). Partner schools in the SCS utilise both.

Peer teaching is becoming increasingly accepted as a teaching method in the health disciplines (Gottlieb, Epstein, & Richards, 2017; Yu et al., 2011). Reported benefits of peer teaching for learners include the creation of a safer, less pressurised learning environment and the ability of peer teachers to contextualise the learning by drawing on their own experiences (Glynn, MacFarlane, Kelly, Cantillon & Murphy, 2006; McKenna & Williams, 2017; Rashid, Sobowale & Gore, 2011; Williams & Reddy, 2016). Peer tutors have also reported benefits for themselves, including the opportunity to address gaps in their own knowledge, a deeper engagement with their own learning, and a renewed enthusiasm for education (Carr et al., 2016; Gottlieb et al., 2017; Omar, Zaheer & Ahmed, 2018). There has even been a call from current medical students to embed peer teaching into medical school curricula (Curlewis & Sharp, 2019).

Two psychological theories have been put forward to explain the successes which have emerged from research into peer teaching. These are social congruence and cognitive congruence (Bulte, Betts, Garner & Durning, 2007; Ten Cate & Durning, 2007a; Hall et al., 2018). Cognitive congruence describes the relatively short distance between the knowledge of the peer tutee and the peer tutor, as compared to the much larger gap between tutee and lecturer (Moust & Schmidt, 1995; Lockspeiser, O'Sullivan, Teherani & Muller, 2008). Due to the similarity in cognitive schemas between peer tutors and tutees, it is posited that peer tutors are able to explain complex concepts in ways which are more easily accessible to their audience (Nelson et al, 2013; Ten Cate & Durning, 2007a). Social congruence refers to the peer teachers being of the same or similar social standing to those they are teaching (Rees, Quinn, Davies & Fotheringham, 2016). This helps the peer teachers to better understand both the social and academic concerns of their tutees. In turn, the tutees feel more relaxed and may be more willing to ask questions than they would in an equivalent situation with a member of academic staff (Ten Cate & Durning, 2007b).

Peer teaching of IL for EBP

One of the driving forces behind conducting this research is the limited literature currently available on the specific combination of peer teaching, IL, and EBP. All the literature which does exist on this combination is concerned with the SCS, demonstrating how important the Scheme is in advancing this area of knowledge. The earliest study is by Rees et al. (2014), which discussed the Scheme from the perspective of the tutees, as did Sbaffi et al. (2018). The two studies reported that both tutees' confidence in information searching skills and their ability to use evidence-based resources were improved following the Student Champions' sessions. Sbaffi et al. (2015) reported on the views of the students enrolled as Champions. That study found a similar improvement in confidence and ability had taken place amongst the Champions, as it had also amongst the tutees. Rowley et al. (2015), in contrast, used a mixed-methods study to analyse data from three separate stakeholders: student peers, Student Champions, and university facilitators of the Scheme (including librarians). It was found that all three stakeholder groups were positive about their participation in the Scheme and the effects it had had on both the Student Champions and the tutees. It was therefore recommended that peer tutoring of IL skills should be given wider thought as an instructional method. The most recent study by Terry et al. (2019) specifically focused on the experiences of student nurses and midwives. Though participants did describe some challenges, they also described many benefits they felt they had gained from taking part, including an increased

knowledge of how to find resources to inform evidence-based care. Overall, all five studies show that there are high levels of enthusiasm for the Scheme amongst participants and that both Student Champions and tutees find taking part in the Scheme to be useful to their studies and clinical practice.

Methods

This research is driven by data collected by NICE in the academic year 2017/18. This data is comprised of Student Champions' responses to mainly open-ended questions, posed by NICE using a standardised reflective report template (Appendix 1). NICE ask Champions to complete the report after facilitating their training sessions. Questions asking about the cascade sessions (such as teaching strategies used) generally attracted longer responses from participants, typically 2-3 short paragraphs. More hypothetical questions, such as how the Scheme can be improved in the future, tended to attract only one or two lines. The researchers considered that the depth and content of the responses provided on the reflective report were of appropriate quality to make an informed judgement about the impact of the Student Champion Scheme.

51 reports, from a total of 203, were chosen randomly and anonymised by NICE. The reports cover the disciplines of dentistry, medicine, nursing/midwifery, and pharmacy. The amount of analysis per discipline reflects the relative proportions of data submitted for this period and a historical targeting of medical and pharmacy schools. The numbers from each discipline are shown in Table 1:

Inductive thematic analysis was employed as the method for interpreting the data. The thematic analysis was conducted using Braun and Clarke's (2006, 2013) six phase model as a guide. Although laid out in the literature in stages, this is intended as a recursive model, not one to be followed in a linear fashion (Braun & Clarke, 2006; Clarke & Braun, 2013).

A key aspect of the ethics of this research was ensuring anonymity, as the students involved had agreed only to an anonymised version of their reports being shared. NICE assigned alphanumeric codes to the reports during the anonymisation process. All quotes used in this report use only this alphanumeric code for identification, thereby minimising the risk of re-identifying participants.

Results

Thematic analysis of the 51 reflective reports identified five themes and 18 sub-themes present in Student Champions' experiences (Table 2).

The theme 'teaching strategies' appeared in all 51 reports analysed. Passive strategies, such as tutors demonstrating to the class how to use ES, were used by 42/51 Champions. However, such strategies were only described by two participants to be their preferred learning style. It was much more common for Champions to express a preference for more interactive learning. This may be

because NICE encourage Champions to facilitate practical sessions in computer suites during the 'Train the Trainer' sessions Champions attend. In fact, four participants explicitly regretted not including more interactive components, with E2 (medicine) describing their own passivelystructured session as "slightly dull". A wide variety of active learning strategies were used by participants, including allowing tutees to actively explore ES themselves (41/51), group work activities (18/51), and quizzes (23/51). These interactive strategies were generally considered to be successful at engaging with the tutees: for example, C1 (medicine) reported that "students enjoyed the team-working aspect of the session", an opinion echoed by fellow medic P2: "group work which the students found useful and engaging". The popularity of this active learning style was reflected in the recommendations given by participants to future generations of Champions. Participant A2 (medicine) gave this recommendation to future Student Champions: "MAKE THE SESSION INTERACTIVE. Do not just talk at people". This sentiment was echoed by five others from across the disciplines.

Participants were keen to describe what they had gained from participating in the SCS; this theme also appears in all 51 reports. Four sub-themes emerged; the largest was 'skills gained/developed'. Participants described having gained or developed the following skills: communication (four participants); independent learning (one participant); interpersonal: (one participant); leadership (two participants); mentorship (one participant); organisational (six participants); presentation/public speaking (22 participants); teaching (22 participants) and team-working (seven participants). An increase in confidence was reported by 24/51 participants, with six participants specifically stating that taking part in the Scheme had boosted their confidence in using ES and in using evidence in their practice. 32 participants, from across all four disciplines, described becoming more familiar with ES as a positive aspect of being a Student Champion. Participants commented on its usefulness for both their studies and for their future careers. For example, B1 (medicine) wrote that ES is "a fantastic resource that I can utilise on a day to day basis on wards and at home". Only seven participants referenced the opportunity to teach their peers as a benefit of participating in the Scheme. Those that did, however, were enthusiastic: A1 (medicine) called peer tutoring "a brilliant idea".

For the theme of 'effect on participants' IL skills', four areas of effect were inferred: improvements in participants' skills for using ES; comments on the relationship between ES and other information sources; examples of critical engagement with ES; and the use of ES for EBP. An increased knowledge of how to use ES was a keenly felt benefit of the Scheme. For example, B3 (medicine) spoke of showing their tutees "more specialised technical skills such as the truncation of words" and E3 (medicine) described showing their students "that any clinical stem can be broken down into its constituent parts and be used to find guidance and information." Six other participants made reference to encouraging flexibility with search terms and use of the filters. 11 participants praising its relative ease of use. Only one participant felt that, despite its ease of use and reliability of information, ES still could not compete with ordinary search engines: B3 (medicine) described their belief that, when looking for basic clinical information, "google is more superior as you can arrive at an answer quicker". Some level of critical engagement with ES as a resource was demonstrated, with five participants trying to pass these skills to their tutees during cascade

sessions. For example, N3 (dentistry) found it important that their tutees "didn't just copy our results at the front" but "had to think about and use what they had been taught in the session". Participating in the SCS also affected how students felt about the importance of having reliable and up-to-date evidence. For example, H3 (pharmacy) wrote that they now understood "the importance of NICE evidence search rather than getting answers from unreliable sources such as using the normal searching engine online". Multiple participants from across the disciplines wrote about how ES could assist them with evidence-based practice, both now as students and in the future as qualified health professionals.

The theme of 'recommendations' comprises three sub-themes: recommendations for future student champions, for NICE, and for university facilitators. Top tips for future Student Champions appear in all 51 reports. Six types of recommendation were made: preparation, interactivity, tailoring, timing, support, and confidence. Recommendations to be thoroughly prepared for your cascade session were the most common. Future Student Champions were repeatedly advised to practice using ES and to become comfortable with its interface prior to delivering cascade sessions. The second most frequent recommendation for Champions was to deliver an interactive session. It was felt that providing an interactive session for tutees would "ensure that students remain engaged throughout the session" (B1, medicine); eight other participants from all four disciplines offered similar thoughts. Improvements to the SCS were suggested in 42/51 reports. Participants made five types of suggestion for NICE: training, timing, advertising, support, and certification. The largest category of recommendation concerned the initial 'Train the Trainer' session. Six concerned its length. Three participants wanted improvements to the resources provided by NICE; for example, E2 (medicine) wanted easier resources, as they felt the existing ones were too complicated for ES novices. There was disagreement between participants over the content of the 'Train the Trainer' sessions: P3 (medicine) wanted more interactive activities, I3 (pharmacy) fewer. P2 (medicine) recommended increased emphasis on teaching skills. There were two final suggestions: N4 (dentistry) asked for an online tutorial for Champions to complete before coming to the 'Train the Trainer' workshop and G3 (pharmacy) recommended allowing the Champions to see an example cascade session before doing their own. Recommendations for university facilitators appeared in only 15 reports. Participants made three different types of recommendations for university facilitators: compulsory attendance, advertising, and timetabling. These all linked back to encouraging students to participate as tutees in the SCS.

The theme of 'time' appeared in 27/51 reports. Participants commented on: length of the initial training workshop, length of cascade sessions, timing of cascade sessions during the day, and timing of ES training during the degree. This theme featured much disagreement between participants. For example, two students asked for the initial 'Train the Trainer' workshop to be longer, whereas two requested that it be made shorter. Participants were similarly split on the ideal length of a cascade session. D3 (medicine) suggested that future Champions "keep it short (no more than 40 minutes)". Indeed B2 (medicine) did seem to find success with their 45-minute session, and J3 (pharmacy) found that around 60/70 minutes was too long for their tutees. However, C3 (medicine) found that their session did not last the full hour and, in hindsight, would ensure that it did. Further, L1 (nursing/midwifery) did run their session for an hour but would have preferred to run it for longer. The timing of ES training during the degree was the sub-theme with the most agreement

between participants: the common thread was a desire for ES to be introduced to students earlier in their courses. This quotation from L2 (nursing/midwifery) provides a neat summary: "Throughout the process, I often wondered why we had not been taught how to use the evidence search engine before now."

Discussion

This research ultimately aimed to understand the experiences of students acting as Champions. The results support the findings of previous research, that Champions derive specific benefits from participating in the SCS (Rees et al., 2014; Rowley, Johnson, Sbaffi & Weist, 2015; Sbaffi, Hallsworth & Weist, 2018; Sbaffi, Johnson, Griffiths, Rowley & Weist, 2015; Terry, Davies, Williams, Tait & Condon, 2019).

Participants did report some positive impact on IL-related skills. Several participants spoke of the need to think creatively and expansively about search terms to return the most relevant results. Some participants explicitly reflected on the success (or lack thereof) of their searches. However, only a small number of participants spoke about using ES in conjunction with other resources (such as PubMed). Just one participant spoke about transferable skills and search techniques (such as truncating words). This suggests that NICE could involve more university information specialists in their workshops in order to encourage students think critically about when to engage with ES and to think of their search skills as transferrable to other resources. Though participant enthusiasm for ES is gratifying, it must be seen in the context of the other information resources available to healthcare staff and students. This accords with the findings of Rowley et al. (2015), that whilst usage of Google dropped amongst students after participating in the Scheme, so did usage of other important sources such as Medline.

Teaching strategies adopted by Champions varied widely. Passive learning strategies, such as the lecture-style teaching traditionally associated with one-shot IL teaching, were used by 42 participants. However, an overwhelming majority of participants voiced their enthusiasm for active learning techniques, such as team-working and using quizzes to test knowledge. This echoes the results of Gil (2017) and Scott (2016), who both found that using active learning strategies in one-shot sessions helped to better engage students.

Both social and cognitive congruence elements were found in Champions' reports. These elements have been repeatedly cited in the literature as being crucial to the success of peer tutoring (Lockspeiser et al., 2008; Moust & Schmidt, 1995; Nelson et al., 2013; Ten Cate & Durning, 2007a,b). Though Champions did not use the language of 'social congruence', some displayed an innate understanding and strived to cultivate such an atmosphere in their own sessions. Similarly, though participants did not use this specific language, it was possible to infer evidence of where cognitive congruence was displayed, supporting previous findings by Rowley et al. (2015). The teaching strategy of 'assignment relation/mimicking', used by twelve participants, was a particularly clear instance of cognitive congruence. Champions used their own experiences with the examinations and assignments faced by their tutees to design their teaching and received positive feedback for having

done so. This research is the first on the SCS to explicitly engage with the theories of social and cognitive congruence, despite their prevalence in the wider peer tutoring literature.

This research sought to make a unique contribution to the existing literature by investigating whether any significant differences between the four disciplines existed. Some small differences were noticed: for example, medical students were more likely than nursing or pharmacy students to consider that they had gained teaching skills. Of the 22 participants who highlighted teaching specifically, 12 were medical students. This corresponds to the increased emphasis on teaching as a core competency for medical graduates (General Medical Council, 2018). However, there were more commonalities than differences amongst the disciplines. For example, all disciplines described a preference for using active learning strategies in their teaching. Students from all disciplines believed they had gained skill in giving presentations/public speaking and a more comprehensive knowledge of ES. Further, all disciplines recognised that knowledge of ES would be useful for both their studies and their professional working lives.

In addition to the benefits that Champions gain through participating in the SCS, this research also indicates that they face significant challenges. First, the theme of time frequently recurred across the dataset, appearing in participants' answers to multiple different questions in the report. This is not to say that students agreed – on the contrary, there was disagreement over both the ideal length of the 'Train the Trainer' session and of cascade sessions. Nevertheless, this frequency of appearance and strength of opinion shows that issues of time and timing are clearly important to participants. However, time as a theme was only encountered once when reviewing the literature (Sbaffi, Collins & Weist, 2018). Further, students highlighted many concerns about organisational and administrative aspects of participating in the Scheme, which have only been touched upon in previous research (Rowley et al., 2015). As with the theme of time, these practical elements are vitally important to how students experience peer tutoring, but are not frequently discussed in the literature. This research thereby adds to the existing literature by exploring in greater depth these significant, but oft-neglected, aspects of participating in peer tutoring.

Limitations

The dataset used in this research is formed from the reflective reports of students who were happy to have an anonymised version of their report shared. Any students who did not consent to this sharing were excluded from this research. Therefore, not every Student Champions' viewpoint will have been captured. It is particularly possible that some negative views on the Scheme have not been included, as Student Champions may have been reluctant to publicise any difficulties or less-than-positive experiences they had.

Implications for practice and research

Student Champions generally reported that including interactive elements in their sessions resulted in a higher level of engagement and interest from their tutees. Suggestions for interactive activities for information professionals to include in their own teaching include hands-on resource exploration by participants, group-working, and quizzes. However, this research was purely examining the opinions of the Champions. It would be interesting for future research to explore (a) whether participants do indeed enjoy interactive learning more than passive, lecture-style learning, and (b) which teaching style (interactive or passive) has the greater impact on student learning and retention.

Information professionals, especially those in higher education, can adapt the theory of cognitive congruence. Ensuring that what you are teaching is directly linked to something of practical relevance to your audience – such as an assignment – increases engagement and knowledge retention. This can easily be combined with active learning techniques, such as students exploring databases for themselves. In an academic environment, it may be helpful to recruit a student volunteer from a higher academic year to enhance credibility.

Conclusion

This research has confirmed that Student Champions derive many benefits from participating in the SCS, including (but not limited to) an improvement in their skills for IL. Students spoke about the need to critically engage with the information they use and to not unthinkingly rely on familiar, but potentially less trustworthy, sources (such as Google). No significant differences between the participating disciplines were discovered; the Champions were broadly in agreement about the benefits they had gained and the challenges they had faced. There were also many commonalities between the disciplines in the teaching methods adopted by Champions – all disciplines displayed a mixture of both passive (e.g. lecturing with a PowerPoint) and active (e.g. allowing tutees to actively explore ES) techniques.

Based on the experiences of the Champions, this research offers the following recommendations to NICE for future improvements to the Scheme: (a) consider offering universities a range of different 'Train the Trainer' sessions to choose from – for example, a short version, which covers just the basics, and an extended version, which provides more in-depth information; (b) create more resources for Champions to use in planning and delivering their cascade sessions; and (c) investigate the possibility of developing further an online forum for discussion that can also house more resources for Student Champions. These could be both educational and supportive resources.

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Table Legends

Table 1: The number and relative percentages of reports received by NICE per discipline involved in the Student Champion Scheme.

Table 2: The five themes and 18 sub-themes inferred during thematic analysis of the Student Champions' experiences.

Appendix 1: Reflective report template

NICE Evidence Search Student Champion short reflective report template

Simply complete all sections of this template. You do not need to reformat it. There is no minimum word count.

1. Name

Date of submission:

- 2. Email
- 3. Address to send certificate upon completion
- 4. University and School
- 5. 2017 -18 Academic Year
- 6. (a) How many sessions did you facilitate / co-facilitate on Evidence Search?
 - (b) Date/s of sessions
 - (c) Names of all co-facilitators:-
 - (d) What was the total number of students that attended your session/s?
 - Of these, how many had heard of NICE Evidence Search, and how many had used it?
- 7. Which year groups were your sessions for?
- 8. What aspects of your sessions do you think worked particularly well?
 8.1. Give some specific examples of the techniques that you used in your sessions e.g. the use of worksheets, quizzes, discussion in small groups, search demonstrations by the participants etc.
- 9. What aspects of your sessions do you think worked less well?
- **10.** What is your critical assessment of the relevance of Evidence Search to you / students in your department?

10.1. Please give specific examples of where your search results were particularly useful. **10.2.** Please give an example of where your results were not so useful.

- **11.** How do you think the student champion scheme could be improved in the future?
- 12. What's your top tip for future student champions?
- 13. What do you think you have gained from being a student champion?
- 14. Additional comments

Are you happy for an anonymised version of your report to be shared with your University? YES, NO *please circle your response.*