The peril of protection: Bandura's insights on teaching information literacy competency

By Sarah Pavey

Snapshot

Our Reflections and Actions section guest for 2024, Sarah Pavey, explores Bandura's Social Learning Theory considering how through this lens school libraries can positively engage the school community in improved information literacy. Pavey offers a range of practical strategies and approaches to inspire school librarians.

In today's rapidly evolving digital landscape, information literacy plays a pivotal role in empowering students to navigate the vast sea of knowledge at their disposal. As we grapple with the challenges this poses, we face a dichotomy: Should we emphasise caution and restrict access to technological tools, or should we embrace the positive benefits they offer? Increasingly the decision is not ours to make as many schools worldwide now have imposed a ban on mobile phones and have implemented draconian filtering systems on their networks (UNESCO, 2023). Those countries assessing student ability through formal examinations alone with no access to the digital world resolve the conflict by simply removing any chance of learners succumbing to the perils of online cheating during tests (Joint Council for Qualifications, 2024). But what message does this give our young people and how might this impact on their understanding of the complexities of the modern information environment?

This article explores the impact of Albert Bandura's influential Social Learning Theory (Bandura, Ross & Ross, 1961) when applied to the context of this dilemma. Bandura suggests that we learn not only through direct experience but also by observing others and following a model. Whether it is a parent demonstrating how to tie shoelaces to their child or a librarian teaching effective online research strategies, the power of observational learning cannot be overstated. But how does this theory intersect with becoming information literate and so being able to navigate the digital world effectively, particularly in relation to the offer from school librarians? Here we will understand how these insights can be applied to the cultivation of critical thinking, digital competence, and responsible information consumption. By striking a balance between safety concerns and the promotion of information literacy, as librarians we can empower students to become discerning, informed citizens in an interconnected world.

...as librarians we can empower students to become discerning, informed citizens in an interconnected world.

Understanding Bandura's Social Learning Theory

Albert Bandura is mostly associated with the Bobo Doll experiments, conducted in the early 1960s (Bandura, Ross & Ross, 1961). In these experiments, children watched an adult act aggressively towards a large inflatable doll (Bobo Doll). The adult would hit, kick, and

As librarians, we need to consider if in our lessons we offer and demonstrate examples of good practice, or do we simply ask students to "spot fake news"?

yell at the doll. In some variations, the adult received either positive reinforcement (praise), punishment (being scolded), or no consequences for their actions. The children were then observed in a playroom with the Bobo Doll. The results showed that children who watched the adult being aggressive were more likely to imitate those behaviours themselves, by physically hitting the doll and using similar aggressive words. This led Bandura to conclude that children can learn social behaviours, including aggression, through observation. Later experiments explored how the consequences the adult faced in relation to their behaviour influenced the children's likelihood to imitate (Bandura, 1965). These findings helped solidify Social Learning Theory as a major concept in psychology. But if this is so, then we should consider how restricting access to technology and placing emphasis on online harms affects student attitudes to their online world. If teachers and librarians model the arena as an unsafe space to be avoided at all costs rather than highlighting ethical use and taking personal responsibility for handling content, then are we encouraging and advocating poor behaviour online?

Albert Bandura's Social Learning Theory provides a valuable lens through which we can understand how individuals learn by observing and imitating others. The theory identifies four key concepts:

- Observational Learning: acquiring new behaviours, knowledge, skills, attitudes, and beliefs by observing the actions of others. This process involves four components: attention, retention, reproduction, and motivation.
- Modelling: individuals serve as models for one another. Whether it is a librarian demonstrating effective problem-solving strategies or a peer showcasing digital literacy skills, these models influence our behaviour.
- Self-Efficacy: an individual's belief in their ability to succeed in specific situations plays a crucial role in learning and behaviour. High self-efficacy can lead to greater engagement and persistence in challenging tasks.
- Environmental and Cognitive Factors: acknowledging that both environmental (external) and cognitive (internal) factors shape learning.

If educators consistently model fear and avoidance of digital tools, students may internalise these attitudes...

In the context of information literacy, Bandura's theory suggests that students can learn critical skills by observing librarians, teachers, and peers as they navigate digital environments, evaluate sources, and engage in effective information-seeking behaviours. So, if that learning space is restricted or caution regarding safety is a constant mantra how does that affect

the outcome in relation to the concepts described above? If we model potential risks and harms will that be the retained message of observation and will that affect self-efficacy and cognition? As librarians, we need to consider if in our lessons we offer and demonstrate examples of good practice, or do we simply ask students to "spot fake news"?

The dangers of limiting technology use

While concerns about online safety are valid, an overemphasis on restriction and a focus solely on online harms can have unintended negative consequences. UNICEF (2019) conducted an international survey showing why it is imperative for students to build experiences of the digital world. We know that the more we practise acquiring competencies the more adept at that skill we become. Interestingly, Cumberbatch (1989) states that the novelty of the Bobo Doll may have impacted on Bandura's findings. Cumberbatch found children exposed to the Bobo Doll previously illustrated five times less violence compared with those test subjects who were familiar with the doll. Children may have perceived the Bobo Doll as merely a toy with its intention to hit it, kick it and show aggression towards it. This finding suggests that familiarity with digital products and understanding their intended use might be important factors in information literacy competency. Students who have not had the chance to use the technology may be more likely to accept the adult model and so if we promote a climate of uncertainty and malpractice then we may exacerbate adoption of those traits by new users.

School librarians as expert models can demonstrate advanced search techniques, critically evaluate sources, and showcase problem-solving strategies

If we apply Bandura's theory to restricted access to the online world, we need to be aware that students:

- may miss out on opportunities to observe and model appropriate use of technology, which is increasingly important in modern society and workplaces. We may inadvertently deprive students of valuable experiences that could enhance their digital literacy and critical thinking skills.
- may have reduced self-efficacy with technology. Without regular exposure and practise, students may develop lower confidence in their ability to use technology effectively. Just as we teach children road safety instead of banning them from crossing streets, we, as school librarians, should guide them in using the internet responsibly rather than imposing strict restrictions. Overprotection may leave students ill-equipped to handle online challenges when they inevitably encounter them later in life or in the home environment. If educators consistently model fear and avoidance of digital tools, students may internalise these attitudes, developing anxiety or aversion towards technology rather than confidence and competence.
- may not learn how to self-regulate their technology use in educational settings, a crucial skill for future academic and professional life.

- may fall behind in developing critical digital literacy skills necessary for success in the 21st century. This is especially illustrated by the knee jerk reaction to the use of generative AI tools – thankfully now this has largely mediated into looking at positive adoption in pedagogy (International Baccalaureate Organisation, 2024).
- may disproportionately be affected by lack access to technology at home, potentially widening existing digital divides and exacerbating inequalities in digital literacy. (Bon, Saa-Dittoh & Akkermans, 2024).

The positive online experience being promoted as the ideal model is crucial.

When a school imposes a very restricted online environment further issues may arise. By doing this the school might create an artificial protective bubble that does not reflect the technology-rich spaces students will encounter in the outside world. Limited exposure could lead to increased anxiety or discomfort when students eventually need to use technology in higher education or work settings. We should not forget that technology can enhance learning experiences and engagement for many students, particularly those with diverse learning needs. Worryingly, Bandura's theory suggests that forbidden or restricted items often become more desirable, potentially leading to increased non-sanctioned use. If educators are also restricted in their use of technology within the school, students will lose valuable opportunities to learn from adult models in this domain.

These implications suggest that a balanced approach to technology use in schools, focusing on teaching responsible use rather than outright bans, might be more aligned with Bandura's theory and better prepare students for their future. However, this is a complex issue with valid arguments on both sides.

Designing information literacy lessons through Bandura's lens

Instead of focusing solely on online harms, as librarians we can use Bandura's theory to highlight and model the positive aspects of technology use. However, if we are to deliver this message with effect, we need to be mindful of Bandura's advice on the mediating process when designing our lessons. He suggests that cognitive processes intervene between observing a behaviour and deciding whether to imitate it. As librarians we can ensure the criteria are met and encourage positive behavioural responses:

- **Attention**: ensuring that our model grabs student attention and promotes curiosity
- **Retention**: ensuring students can mentally represent the behaviour.
- **Reproduction**: encouraging students to replicate the behaviour
- **Motivation**: ensuring students are motivated and influenced to persist in imitating the required behaviour.

Then we can design, or codesign with teaching colleagues, the information literacy competencies we wish to deliver to our students.

Expert models

School librarians as expert models can demonstrate advanced search techniques, critically evaluate sources, and showcase problem-solving strategies. By verbalising our thought processes during the information seeking and evaluation process we can help students understand the rationale behind our actions and promote better information literacy practices. We might encourage student-led demonstrations of effective research methods and facilitate peer tutoring programs for digital skills. We might appoint student ambassadors to promote information literacy helping to create a culture of information-savvy individuals.

...as educators, we can create a learning environment that is respectful, equitable, and inclusive.

To encourage best practice in technology we might use virtual approaches to modelling too. We could develop instructional videos demonstrating information literacy skills, interactive tutorials, and curate exemplary digital projects on our library management system to help students observe and practise simultaneously, improving their understanding and retention of information literacy competencies.

However, we also need to ensure diverse representation in our modelling examples and address varying cultural approaches to information seeking and sharing. By considering diverse perspectives, as educators, we can create a learning environment that is respectful, equitable, and inclusive.

Environment

To create positive digital experiences for observational learning, it is essential to design engaging environments, utilising social media platforms, encouraging collaboration, and promoting a positive online experience. To achieve this goal, we could incorporate game-based learning elements into our delivery to increase motivation and engagement, while using virtual or augmented reality to provide immersive learning opportunities. Additionally, developing interactive simulations of real-world information challenges can promote hands-on learning.

Social media, age allowing, can provide students with a familiar space for information literacy education. We could create school-wide hashtags, organise live sessions with information professionals and encourage the creation and sharing of infographics on information literacy topics to nurture a supportive learning community. Collaborative digital projects could provide another inroad by implementing wiki-style projects, organising virtual book clubs, and

facilitating cross-school or international research projects to help students develop teamwork and problem-solving skills while enhancing their information literacy skills.

The positive online experience being promoted as the ideal model is crucial. If we create safe and moderated online spaces for practising digital citizenship, showcase successful student digital projects and organise virtual field trips to digital libraries and online museums we can help promote this agenda. Cultivating positive digital experiences for observational learning involves incorporating various strategies to engage students in this way rather than deterring them from experimentation through fear and driving use underground.

Cultivating positive digital experiences for observational learning involves incorporating various strategies to engage students...

Self-efficacy

If in accordance with Bandura's theory we wish to develop student self-efficacy in navigating digital information landscapes, then this will involve scaffolding information literacy concepts, celebrating progress, encouraging productive struggle, and personalising the learning experience. To achieve this, we could design progressive challenges, providing clear goals, and offering immediate feedback to help students build upon previous skills and develop their information literacy competence. Maybe we could motivate learners by allowing them to earn digital badges. We could encourage students by organising events or competitions to recognise their achievements and to celebrate and promote accomplishments.

By designing challenging yet achievable tasks, teaching problem-solving strategies, and cultivating a growth mindset, as librarians we can help students develop resilience and adaptability in information literacy. Such strategies encompass the idea of productive struggle or graceful failure along the learning pathway. We can also promote self-efficacy by personalising the learning experience maybe by encouraging the use of adaptive technologies, offering choice in topics and presentation formats, and providing multiple pathways for demonstrating competencies. This tailors the learning experience to individual needs and preferences. The approach promotes a sense of ownership and engagement in the learning process which Bandura advocates as essential.

Technology challenges

To address the dichotomy of restriction versus engagement in digital information landscapes we will, in our lessons, need to reframe the conversation around digital safety, implementing guided access strategies, developing digital resilience, engaging stakeholders in policy planning and emphasising the need for transferable skills. It will not be straightforward to shift school leadership opinions towards an empowerment-based model, teaching critical evaluation skills and emphasising how responsible use can help students make informed decisions and protect themselves online. Maybe we begin by creating curated resource collections, gradually

increasing the level of access based on demonstrated competence and develop clear policies to help balance protection and exploration.

Alongside this we need to help students build digital resilience. As librarians we can teach strategies for good practice rather than simply asking them to identify misinformation and disinformation but show them how to demonstrate where content is authentic and reliable. We can encourage awareness of digital footprints to help students develop skills to navigate the complexities of online environments.

...information literacy is not just about acquiring a set of skills, but about participating in a community of practice.

By engaging stakeholders in policy development, we can involve the school community in not just creating acceptable use policies but also enlisting them to regularly review and update content. We could conduct workshops to help foster a shared understanding of the benefits and risks of digital engagement. If we demonstrate the relevance of information literacy competencies across different contexts, highlighting their importance for future success, and encouraging application in personal lives, we can help learners recognise the wider value of these skills and to be able to apply them in various settings with confidence.

By rethinking information literacy through Bandura's lens, we can create a more dynamic and effective approach to developing these crucial skills. This perspective emphasises the importance of positive modelling, engaging experiences, and building confidence in navigating digital information landscapes. It challenges the traditional dichotomy of restriction versus engagement, advocating instead for a nuanced approach that empowers students to become skilled and responsible digital citizens.

This approach recognises that information literacy is not just about acquiring a set of skills, but about participating in a community of practice. By providing opportunities for observation, guided practice, and meaningful engagement with digital tools and environments, we can help students develop the self-efficacy and critical thinking skills necessary to thrive in our information-rich world. Moreover, this perspective acknowledges the rapidly changing nature of the digital landscape. Instead of trying to protect students by restricting access, we can better serve them by teaching adaptability, critical thinking, and responsible engagement. This prepares them not just for the digital challenges of today, but for the unforeseen information environments of tomorrow.

... we can better serve them by teaching adaptability, critical thinking, and responsible engagement.

Conclusion

Bandura's Social Learning Theory offers valuable insights for school librarians navigating the complexities of information literacy education in the digital age. By shifting from a restrictive,

fear-based approach to one that emphasises positive modelling, guided exploration, and the development of critical thinking skills, we as school librarians can empower students to become confident and competent digital citizens. The key lies in striking a balance—acknowledging potential online risks while emphasising the tremendous benefits and opportunities that digital technologies offer. By modelling effective information-seeking behaviours, creating positive digital experiences, and encouraging self-efficacy, we help students develop the skills and resilience needed to thrive in our information-rich world.

… we as school librarians can empower students to become confident and competent digital citizens.

As we move forward, it is crucial for us as school librarians to continually adapt our practices, embracing new technologies and pedagogical approaches. By doing so, we can ensure that students are not just protected from potential online harms but are actively empowered to harness the full potential of digital resources for learning, creativity, and personal growth. The challenge for school librarians worldwide is clear: to move beyond the role of gatekeepers and become true digital mentors, guiding students towards information literacy with confidence, creativity, and critical awareness. In doing so, we will play a vital role in preparing the next generation for the opportunities and challenges of our increasingly digital future.

References

Bandura, A. (1965) 'Influence of models' reinforcement contingencies on the acquisition of imitative responses'. *Journal of Personality and Social Psychology*, 1(6), 589–595. https://doi.org/10.1037/h0022070

Bandura, A., Ross, D. & Ross, S.A. (1961) 'Transmission of aggression through imitation of aggressive models'. *Journal of Abnormal and Social Psychology*, 63, 575-82. https://doi.org/10.1037/h0045925

Bon, A., Saa-Dittoh, F., Akkermans, H. (2024) 'Bridging the digital divide'. In H. Werthner, et al. *Introduction to digital humanism*. Springer. https://doi.org/10.1007/97898116.2377662

Cumberbatch, G. (1989) 'Violence and the mass media: The research evidence'
In G. Cumberbatch and D. Howitt. *A measure of uncertainty: The research evidence*.
London: John Libbey and Co. Ltd.

International Baccalaureate Organisation (2024) 'Academic integrity policy Appendix 6: Guidance on the use of artificial intelligence tools'. Available at: https://ibo.org/globalassets/new-structure/programmes/shared-resources/pdfs/academic-integrity-policy-en.pdf

Joint Council for Qualifications (JCQ) (2024) 'Artificial intelligence (AI) Use in assessments: Protecting the integrity of qualifications'. Available at: https://www.jcq.org.uk/exams-office/malpractice/artificial-intelligence/

UNESCO Global Education Monitoring Report Team. (2023) 'Technology in education: a tool on whose terms?' Available at: https://unesdoc.unesco.org/ark:/48223/pf0000385723

Unicef Innocenti (2019) 'Global Kids Online: Growing up in a connected world
How do children's online experiences affect their rights and well-being?' Available at: https://www.unicef.org/innocenti/media/7011/file/GKO-Comparative-Report-2019.pdf

Sarah Pavey *was a school librarian for over 20 years but now runs her own education consultancy and training company. In addition to degrees in Biochemistry and Information Science she holds Fellowship of CILIP and the Royal Society of Arts. Sarah is an established author in the library and information field and speaks at conferences regularly both home in the UK and abroad. Her training courses have a reputation for being practical but rooted in theory. Sarah has had a lifelong interest in developing technology and its impact on society. Sarah's new book published earlier this year, The Networked Librarian considers how school librarians work in teams within the wider school community.*
www.sp4il.co.uk
@Sarahinthelib