

Reference Services and Instruction

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Learning That Lasts

Teaching for Transfer at Reference

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Imagine a librarian who is teaching a one-shot library instruction session and asks students to share the ways they look for information in their personal lives. The librarian leans into their examples and explains how a practical situation, such as figuring out which car to buy, is similar to but also different from how we locate academic information for a class. This comparison leads to the librarian explaining how looking for information and determining its credibility depend on the context. The car example draws on a familiar experience of information seeking, which helps students more easily understand the concept of finding information in the context of the library.

This method is an example of a foundational theory for enhancing student learning called *learning transfer* or, from the instructor perspective, often phrased in the literature as *teaching for transfer*. From reflective practices to gamification, learning transfer is the key to the conception and development of various teaching methods.¹ Librarians would benefit from being aware of simple practices to teach for transfer, which are often sought out when preparing for library instruction but are less frequently applied during reference interactions.

Theories of learning transfer posit that learning is not just ingesting knowledge but also the ability to apply it in new or different contexts. Research shows, however, that learning transfer doesn't happen automatically. Just because skills have been taught and learned in one context does not mean students can then apply them in a new context.² For example, a student of a foreign language may get an A on a vocabulary test yet not be able to use the same words in conversation, which means transfer has not occurred. According to Perkins and Salomon, "Thinking at its most effective depends on specific, context-bound skills and units of knowledge that have little application to other domains. To the extent that transfer does take place, it is highly specific and must be cued, primed, and guided; it seldom occurs spontaneously."³

Therefore, to enhance learning, instructors need to teach intentionally for transfer. Perkins and Salomon describe five conditions under which transfer occurs (author's explanation in parentheses):

- Thorough and diverse practice (repetition in multiple contexts)
- Explicit abstraction (drawing principles from previous experience and applying them to new ones)
- Active self-monitoring (reflection on one's learning process, often referred to in more recent literature as *metacognition*)
- Arousing mindfulness (general awareness of engagement in one's surroundings)
- Using a metaphor or analogy (new material studied while considering old material)⁴

These conditions for transfer are important to librarians if their instructional goals are to be met both in the library classroom and at reference.

Many of the conditions of transfer are already well integrated into traditional teaching practices, although instructors may not be conscious of them. Even the one-minute paper, a classic assessment method in library instruction environments, can be used to enhance learning transfer as students reflect on their experience of the instruction session. Using learning transfer techniques in the one-shot library instruction classroom is especially useful because librarians are limited to a single session.

Examples of librarians teaching for transfer are regularly showing up in the library literature. Riesen and Whitver describe an example of using reflective teaching to enhance their one-shot sessions that shows students making steps toward learning transfer through arousing mindfulness and active self-monitoring.⁵ James Lang's popular book *Small Teaching* describes easy, actionable methods for the classroom based on the cognitive foundations for learning transfer, which are gaining traction in library instruction strategies.⁶

Transfer at Reference

Typical reference interactions, although limited, would benefit from the same principles applied to instructional environments. Moving reference experiences from transactional to instructional is a task that is limited by the nature of the environment but, nevertheless, not impossible. Using some of the verbal cues and methods suggested by learning transfer theorists could make experiences at reference more meaningful for the student and the librarian.

The Reference Interview

The way librarians frame the reference interview using methods to teach for transfer is one opportunity to shape the learning process for students as they approach reference. The following possibilities can work independently or in conjunction with other strategies and methods:

- Recall previous experiences: "Tell me what you have tried so far." "Have you been successful previously?"
- Demonstrate the process: "What we should do now is break your search down into keywords that the database can use."
- Encourage practice: "Now that we've tried one search with keywords, what are some new searches you could try? Can you think of some other keywords you might want to use?"
- Prompt recall: "Do you remember the name of the database we used?"
- Self-explain: "Tell me why you chose those keywords (or that database)."
- Prompt prediction: "What's one thing you learned from this experience that you can apply to other research assignments?"

Taking the Lead

Another way to encourage transfer at the reference desk is to allow the library user to take the lead in the search process while being guided by the librarian. If a wireless mouse and keyboard are available, ask the person if they would like to be the one to use the tools. Have the person start at the library website (or go even further back, starting at a web browser) and show their process. The librarian can make recommendations for finding the right resources. Allowing the person to be the one to act instead of just observing takes the person further along in achieving transfer.

In Virtual Environments

Using techniques that teach for transfer in the virtual environment creates a foundation that students can transfer from in new research settings. A chat reference question could be one of the few opportunities for any kind of library instruction a student has, especially where many institutions have programs that are predominantly online. Unless the library has a particularly robust online instruction program, online students may have large gaps in library skills. Without extra attention, chat-based reference interactions limit opportunities to demonstrate the research process visually and limit personal connection.

Writers in the library literature have described various methods of enhancing virtual reference interactions using strategies tied to theories of learning transfer. Oakleaf and VanScoy outline methods for enhancing digital reference that remain relevant and align with teach-for-transfer techniques, such as Show Don't Tell, Think Aloud, and Let Them Drive.⁷ These methods allow the person to practice searches on their own while the librarian walks them through the process. Saunders and Wong provide strategies for identifying similar techniques appropriate to the situation, whether a virtual or in-person encounter.⁸ Additional examples to enhance learning transfer in a chat interaction could include suggesting a short virtual meeting to guide the student and to more closely replicate the environment of the in-person session. When a virtual meeting isn't possible, sending screenshots or a recorded video demonstration would also enhance the transfer of learning in the digital environment.

Conclusion

This article demonstrates how learning transfer is the foundation of instructional methodologies common to the library instruction classroom and makes the case for applying those same principles to reference. Teaching for transfer enhances reference interactions using subtle strategies supported by the science of learning. These approaches allow librarians to adapt specific techniques to each student's readiness and availability. For example, the following scenarios describe recent experiences in reference interactions that demonstrate how strategies for learning transfer can be adapted to different modalities in everyday reference work.

In one chat reference interaction, a student requested a quick introduction to library resources, something that would normally require a full tutorial in database selection and keyword searching. Because I knew it would be much more cumbersome for me and the student to use chat alone, I asked whether the student was interested in a virtual meeting. Although the student's time allowed, their environment did not, so instead, I was able to send step-by-step instructions with screenshots that enabled the student to follow along independently.

During that same week, a student visited the reference desk in person, seeking help getting started on a senior thesis. Throughout the session, I prompted the student to suggest keywords, reflect on search results, and recall information, whereas previously, I may have been tempted to do it all myself without including the student in the process.

The principles described are not meant to be prescriptive but to foster intentionality in how librarians approach reference work. Not every interaction will perfectly facilitate learning transfer, but keeping these consistent habits of questioning and guided support provides opportunities for learning that lasts.

References

1. Shiva Hajian, "Transfer of Learning and Teaching: A Review of Transfer Theories and Effective Instructional Practices," *IAFOR Journal of Education* 7, no. 1 (2019): 93–111.
2. David N. Perkins and Gavriel Salomon, "Transfer of Learning," in *The International Encyclopedia of Education*, ed. Torsten Husén and T. Neville Postlethwaite, 2nd ed. (Pergamon, 1994), 6452–57.
3. David N. Perkins and Gavriel Salomon, "Are Cognitive Skills Context-Bound?," *Educational Researcher* 18, no. 1 (1989): 19, <https://doi.org/10.3102/0013189X018001016>.
4. Perkins and Salomon, "Transfer of Learning," 6454–55.
5. Karleigh Riesen and Sara Maurice Whitver, "Reflection and Transfer Learning in the One-Shot: Demonstrating Student Learning," *College & Research Libraries* 84, no. 4 (2023): 531–44, <https://doi.org/10.5860/crl.84.4.531>.
6. Piper Cumbo, "Keeping Up with Small Teaching," American Library Association, accessed March 17, 2026, https://www.ala.org/acrl/publications/keeping_up_with/small_teaching; James M. Lang, *Small Teaching: Everyday Lessons from the Science of Learning*, 2nd ed. (Jossey-Bass, 2021).
7. Megan Oakleaf and Amy VanScoy, "Instructional Strategies for Digital Reference," *RUSQ: A Journal of Reference and User Experience* 49, no. 4 (2010): 382–85, <https://doi.org/10.5860/rusq.49n4.380>.
8. Laura Saunders and Melissa A. Wong, "Point-of-Need Instruction: Teaching at the Reference Desk and in Consultations," in *Instruction in Libraries and Information Centers* (Windsor & Downs Press, 2020), chapter 18, <https://iopn.library.illinois.edu/pressbooks/instructioninlibraries/chapter/point-of-need-instruction-teaching-at-the-reference-desk-and-in-consultations/>.