Enhance Your Reference Skills by Knowing the Four Phases of Interest Development

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The RUSA *Guidelines for Behavioral Performance* note that "Librarians who demonstrate a high level of interest in the inquiries of patrons will generate a higher level of satisfaction among users (2.0)." A corollary is that stimulating patrons' interest in a topic may not only enhance satisfaction with a reference encounter, but also improve the student's academic achievement. Stimulation of interest can be expected to not only boost students' satisfaction with reference encounters but also improve student learning outcomes of library instruction sessions.

Freshmen arrive at college with varying degrees of certainty regarding what their personal interests are and what they wish to pursue as a career. It's very common for students to change their interests early in their college careers. Nationwide some 75–80% of college students change their majors at least once.[1] Research on factors influencing choice of major has shown that interest in a subject has the greatest influence on both entering freshmen's initial choice of major and on later decisions to change academic major.[2] These choices do not happen in a vacuum. Social experiences powerfully impact the development of interest. Interactions with peers, family members, coworkers or others expose individuals to new topics that may become of personal interest to them. The reasons for becoming interested in a topic include perceiving the topic to be novel, realizing a discrepancy from existing assumptions or knowledge, recognizing personal relevance, or desiring to participate in the activity with friends.[3] Any of these causes for interest to be triggered may occur before or during a student's first year in college. Opportunities to develop new interests naturally occur throughout adult life so long as a person interacts with others.

Teachers and librarians can play important roles in students' development of interest in a topic or discipline, whether in choosing a major or developing outside interests. Research indicates that in the classroom or library instruction section there are three general ways to spark interest: give students meaningful choices, expose them to vividly wrought information, and provide them with personally relevant background knowledge.[4] Although providing choice in what students pursue as an assignment topic can help students be autonomous actors in their learning, spurring individual interest has actually been found to be a more important influence on learning outcomes than simply providing students choice in research topics.[5] Research has shown that the most powerful way for instructors to spur students to develop interest in the target range of course topics is through teaching with cognitive congruence. Cognitive congruence means expressing concepts in ways students can easily grasp.[6] In short, a teacher or librarian must find commonly understood language that works to match teaching goals with students' learning goals. This is a major challenge, not least because a class of students will normally repre-

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sent a broad range of learning goals and various interpretations of what constitutes easily understood language. Students often come to the library with learning goals that are not in sync with the information literacy goals we wish them to achieve, at least not in the short term. Difficult as it may be, finding the language and visual information most likely to achieve cognitive congruence with each particular group of students is vital to effective teaching.

A potentially powerful way to match a student's short-term goal of fulfilling an assignment with an instruction librarians' long-term goal of promoting information literacy is to recognize students' current levels of interest and adapt instruction to accommodate the needs and wants of students at their current levels of engagement. Librarians' ultimate goal for reference and instruction should be to enable students to attain a sophisticated level of information literacy that enables their pursuit of well-developed individual interests. Shooting high early on to foster sophisticated levels of information literacy is well-meaning. But overly ambitious attempts to leapfrog over younger students' existing levels of information literacy and topic interest are likely to frustrate them, us, and their teachers, and ultimately be counterproductive to their long-term cognitive development.

Reference librarians can help spur interest in early phases of interest development by succinctly explaining library skills and information literacy concepts in ways students can readily understand. The key is to directly tie skills to the immediate tasks at hand in a manner that matches stages of interest development. Whether at the reference desk or in an instruction session, the librarian's perception of students' current levels of interest can guide the immediate support we provide.

K. Ann Renninger and Suzanne Hiki's Phases of Interest Development model is based on the proposition that interest is based on "triggers" capable of shifting learners' thinking by introducing surprise, novelty, unexpected complexity or cognitive dissonance.[7] These "triggers" share key characteristics with the "threshold concepts" embedded in the *Framework for Information Literacy*. The triggers of interest development and the threshold concepts result from interactions or circumstances that cause learners to reorganize their thinking. In both models, the essential role of teachers and librarians is to push students beyond their current mind sets to seriously encounter new ways of thinking. The trick is to push hard enough to stimulate learning without overwhelming students with too much information at once.

The Four Phases of Interest Development are: 1) triggered situational interest, 2) maintained situational interest, 3) emerging individual interest and 4) well-developed individual interest.[8] Renninger intentionally chose the term phases to describe the progression of interest. She specifically avoids using the term stages to define these four states, because "interest in all phases of development needs to be cultivated and sustained."[9] Interest can be stimulated and it can fade away over time. A phase may pass, while a stage implies some degree of permanency. Renninger and Hidi's model focuses on the emergence of interest, but recognizes that the dynamic nature of interest development depends on opportunity, social context, and personal preference.

Phase One of interest development is triggered situational interest. The learner in this phase becomes aware of a topic and pays some attention to it, albeit perhaps only fleetingly. In this initial phase the individual will need support to engage from teachers, peers, or instructional design unless perchance they find the topic personally inherently interesting. A triggered situational interest may elicit positive or negative feelings, and the person may or may not be self-consciously aware of their level of initial interest.[10] A college student's initial engagement with an assigned research project on an unfamiliar topic is an example of triggered situational interest.

Phase Two is maintained situational interest. In this phase a person re-engages with content that initially triggered their attention. Given support from others, interest is expanded via individuals discovering connections with personal skills, knowledge, and experiences. This phase is associated with positive feelings, growing knowledge, and emerging recognition of the value of the topic or task. In this phase the student is making con-

nections to content within a supportive environment, but they do not yet feel a personal sense of ownership.[11] A college student can successfully complete an academic project within this second phase of sustained situational interest. It is desirable for students to develop deeper interest, but successfully completing an assignment does not necessarily require a student to develop a personal interest in the topic. Whether the sustained situational interest one applies to an assignment grows into an individual interest depends on the educational context, personal goals and preferences.

Phase Three is emerging personal interest, in which the individual begins to feel a personal sense of ownership. A learner in this phase is likely to independently engage in content beyond what is required by the assignment(s). She or he becomes curious, asks original questions, and seeks answers for personal fulfillment. Finding answers to satisfy curiosity becomes a top priority. This personal focus on finding answers to questions of personal interest tends to make students unaware of or even dismissive of the canon of a discipline and can cuse them to be resistant to most feedback.[12] A student in this phase may choose to follow a path of their own, even if it is tangential or even contrary to the parameters of an assignment. The individual need to pursue personal goals can be frustrating to librarians and teachers, because their emerging enthusiasm for a topic may not match requirements to earn high grades. Put another way, positive feelings towards the content may not correspond with course requirements. Students may in fact balk at the constraints placed on them by the requirements listed in a syllabus or assignment. Nevertheless, the phase of emerging personal interest is a crucial threshold for students as they explore possible academic and career paths.

Phase Four is well-developed individual interest. In this phase students independently re-engage with content, possibly over extended periods of time. Students with well-developed individual interest generate curiosity questions and take personal responsibility for refining questions and finding answers. Robust positive feelings toward the content empower learners with well-developed individual interest to persevere through challenges and frustrations to meet personal goals. Because interest in this phase is well-developed and based on more extensive knowledge and experience, students appreciate others' contributions to the discipline and actively seek feedback.[13] It is in this phase that people genuinely take ownership of their learning and grow to appreciate their own contributions to the knowledge base.

The goals within the ACLR's *Framework for Information Literacy for Higher Education* can be fully achieved only by learners with well-developed individual interest. Examples of this include "acknowledge they are developing their own authoritative voices in a particular area," "develop, in their own creation processes, an understanding that their choices impact the purposes for which the information product will be used," "value persistence, adaptability, and flexibility and recognize that ambiguity can benefit the research process," and "contribute to scholarly conversation at an appropriate level."[14] These objectives make clear that librarians should promote and support well-developed individual interests as a key educational outcome.

Learners in any phase appreciate having their efforts acknowledged and respected, but students in each of the four phases of interest development want and need somewhat different types of feedback and support. Renninger explains that students' responses to support and feedback from teachers and librarians will vary depending on their phase of interest in the topic at hand.[15] Renninger describes that students with newly triggered situational interest want others to understand how hard it is for them to engage with new content, and would like to be told how to complete tasks in as few steps as possible. In this initial phase students need to be given fewer, more carefully selected suggestions for how to proceed. As maintained situational interest develops in phase two, students still want concrete suggestions and to be told what to do, but they also need to learn how to explore the topic on their own. Critical phase three is where feedback and support can be most helpful, yet ironically it is the time when students may be least likely to be receptive to advice. Because a person with emerging individual interest is focused

on pursuing personal learning priorities, they want to express their own ideas and not be told to revise current efforts. The most psychologically effective supports in phase three are to express understanding of the student's ideas and to give feedback that enables them to see how their personal goals can be met. It is important to affirm students' ideas and give support to assist attainment of personal goals. Our natural inclination is to also press the student to recognize the disciplinary context and expand the breadth of information sought. A key takeaway from phase three in Renninger's Four Phase Model of Interest Development is it is very important to be patient with students in this phase. Only as the final phase of well-developed individual interest emerges is a student really ready to be challenged by the standards of a discipline, induced to cast a broader net for information, and be confronted with constructive criticism. This does not mean that librarians should not urge all students to become information literate. But it does mean that sometimes patience is needed as students move through the phases that culminate in the ultimate educational goal of pursuing well-developed individual interests.

The Four Phase Model of Interest Development has important implications for reference service and information literacy instruction. Renninger and Hidi assert that "An essential component of the four-phase model is that support and opportunities to pursue interest-related questions are necessary for each phase of interest."[16] Awareness of and responsiveness to individuals' phases of interest development can help librarians provide the most effective instruction and support. Figure 1 summarizes indicators of which phase a student may be in and librarians' appropriate reactions.
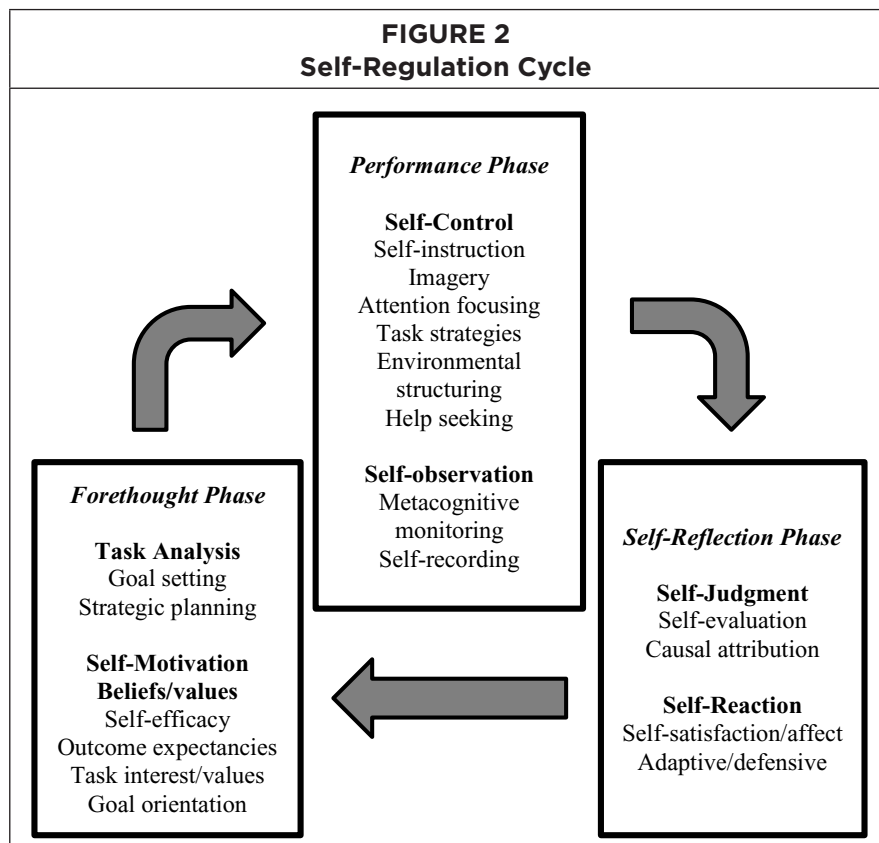
FIGURE 1 Phases of Interest Development		
Phase	**Indicators**	**Appropriate reactions**
1: Triggered Situational Interest	• Expresses that the topic or assignment is new and unfamiliar • Just beginning to work on the task • Displays confusion or uncertainty about what is required	• Acknowledge that the task is challenging • Keep instructions as simple as possible • Limit the number of suggestions for how to proceed
2: Maintained Situational Interest	• Shows evidence of having done some work on the task • Expresses willingness to focus attention over a period of time	• Express appreciation for the work accomplished so far • Make concrete suggestions for making further progress • Encourage effort to explore one's own ideas
3: Emerging Individual Interest	• Expresses personal interest in and enthusiasm for the topic • Displays some background knowledge • Has curiosity questions beyond what is required by assignment	• Listen to and express respect for personal ideas and goals • Focus support on ways to meet personal learning goals • Minimize criticism of effort exerted so far
4: Well-developed Individual Interest	• Displays evidence of having worked on the topic for an extended time • Shows perseverance in answering curiosity questions • Provides information displaying significant background knowledge on the topic	• Provide help geared to achieving a sophisticated level of information literacy • Constructively critique research strategies • Describe advanced search techniques

Ideally every student would be receptive to reference help aimed to sophisticated information literacy and advanced research techniques, but the Four Phase Model makes clear that many students are not yet in the proper frame of mind to receive such help. The challenge for librarians is to find effective guidance and instruction clearly geared toward the eventual, essential goal of becoming information literate in areas of well-developed personal interest, while being cognizant of and responsive to students' current levels of knowledge and interest.

While there may be no harm in demonstrating a few advanced techniques to a class of freshmen just beginning a research assignment, it's important to realize that most students in such a class will be experiencing the initial phase of triggered situational interest (if they have developed any interest at all). These students are likely confused by the new task and will desire instruction on how to complete the work in as few steps as possible. A student in phase one wants and needs only a limited number of concrete suggestions. Reference librarians can play a very important role in students' development of well-developed individual interests. Point of need support offered at the reference desk, online, or by appointment can be just the helping hand an individual needs to get through a sticking point in their progress toward developing personal interest.

Renninger and Hidi assert "as interest develops it is increasingly coordinated with other variables, such a self-efficacy, self-regulation, flow, grit, and identity."[17] Self-efficacy is the feeling that one is capable of achieving a goal or completing a task. Self-regulation is the ability to consciously track personal progress towards goals and realistically assess personal achievements. Flow is a state of complete absorption in a task, to the degree that time fades into the background during intense focus. Grit refers to having resilience to overcome obstacles to achieve goals. Identity in this context refers to associating oneself with a discipline or content area, for example thinking "I'm a biologist" or "I'm a feminist." Self-efficacy, self-regulation, flow and grit directly support academic achievement because they increase motivation, engagement, effort, and satisfaction. Among these important variables, self-regulation is arguably the most important for sustained life-long learning and internalizing an information literate approach to daily life. Figure 2 depicts the essential skills and dispositions of a self-regulated learner.[18]

The Four Phases of Interest Development model is directly relevant to the Self-Regulation Cycle in that all aspects of self-regulation are enhanced by well-developed personal interest. A student with genuine personal interest in a subject is far more likely to use forethought to align personal goals to educational outcomes, focus attention, seek help from librarians or others, and be reflective of discrete tasks along the way to achieve long-term goals.

FIGURE 2
Self-Regulation Cycle

Performance Phase

Self-Control
Self-instruction
Imagery
Attention focusing
Task strategies
Environmental
structuring
Help seeking

Self-observation
Metacognitive
monitoring
Self-recording

Forethought Phase

Task Analysis
Goal setting
Strategic planning

**Self-Motivation
Beliefs/values**
Self-efficacy
Outcome expectancies
Task interest/values
Goal orientation

Self-Reflection Phase

Self-Judgment
Self-evaluation
Causal attribution

Self-Reaction
Self-satisfaction/affect
Adaptive/defensive

Information literacy has reciprocal relationships with interest development and self-regulation. Well- developed interest and the ability to self-regulate enhance a student's ability to achieve a sophisticated level of information literacy. In turn, being information literate empowers one to answer the curiosity questions that are a hallmark of well-developed personal interest. Information literacy also enhances one's ability to analyze tasks and perform effective self-instruction to achieve learning goals, both of which are essential components of self-regulation.

The Four Phase Model of Interest Development thus informs our practice as reference and instruction librarians and can strengthen our ability to support students as they advance through the phases toward well-developed personal interest. A major implication of what has been presented here is that a college library instruction program should include an articulated progression of supports for students to develop through the normal developmental phases of triggered situational interest, maintained situational interest, and emerging individual interest to reach the ultimate goal of attaining well-developed personal interests.

Notes

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