Development, Interest, Self-direction and the Teaching of Information Literacy

Steve Black
Colgate University, seblack@colgate.edu

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Steve Black, Colgate University

Abstract

Three theories from the disciplines college student development and educational psychology of particular relevance to teaching of information literacy are summarized: Perry’s (1999) scheme of intellectual and moral development, Renninger’s (2009) phases of interest development, and Grow’s (1991) stages of self-directed learning. Each theory is described, then parallels among them are drawn, and finally the implications of these theories for the teaching of information literacy are discussed.

Keywords: cognitive development; individual interest; self-direction

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Development, Interest, Self-direction and the Teaching of Information Literacy

Introduction

Ongoing conversations among academic librarians about how to best approach the teaching of information literacy can be enhanced by knowledge of key findings in the fields of college student development and educational psychology. This paper describes three theories of particular import to the teaching of information literacy: Perry’s (1999) scheme of intellectual and moral development, Renninger’s (2009) phases of interest development, and Grow’s (1991) stages of self-directed learning. Each theory will be described, then parallels among them will be drawn, and finally the implications of these theories for the teaching of information literacy will be discussed.

College Student Development

William Perry conducted the interviews upon which his scheme of college students’ ethical and intellectual development were based at Harvard and Radcliffe in the 1950s and 1960s. His team’s findings were first published in 1970 (Perry, Harvard University & Bureau of Study Counsel, 1970). A reprint of the original work includes an introduction on the context of Perry’s work and its impact on the practice of student services in higher education (Perry, 1999). The model describes a series of nine developmental positions students typically transition through as they progress through college. Progressions may be delayed or avoided if students retreat from challenging information, temporize by delaying engagement with new ideas, or escape by denying or rejecting challenging information. The chart of development depicted in the originally published study is rather complex (Perry, 1999). Fortunately, he later provided this simpler model of progression through four main positions:

- Duality: Belief that things are right or wrong, and that finding truth is a matter of looking up the right information from appropriate authorities. Knowledge is perceived as certain or absolute.
- Multiplicity: Recognition that there are multiple points of view on issues, and that everyone has an equal right to their opinion. Knowledge is perceived as subjective.
• Relativism: Realization that points of view can be analyzed based on context and evidence. Knowledge is perceived as being dependent on facts and evidence.

• Commitment: The most mature position, in which the individual recognizes various points of view but makes personal choices on what to believe and act upon. Knowledge is based on both belief and evidence (Perry, 1981).

Critics of Perry’s scheme rightfully noted that his research team’s sample consisted of mostly males from an elite institution. Since that sample was not representative of the American population, skeptics doubted the generalizability of Perry’s model. However, multiple studies on college student development have mostly confirmed Perry’s major findings. Major studies that broadly replicate the existence and importance of the positions have been published in Women’s Ways of Knowing (Belenky, Clinchy, Goldberger, & Tarule, 1986), Knowing and Reasoning in College (Baxter Magolda, 1992) and Developing Reflective Judgment (King & Kitchener, 1994). Each research team used their own terminology and provided unique details to the progression of cognitive and emotional development. Yet all the models identified a progression of perspectives on knowledge that generally parallels Perry’s original scheme. For readers interested in more detail without having to read the original sources, Black & Allen (2017) summarize the literature on the stages of ways of knowing in the context of academic librarianship.

A salient point from the model of college student development is that it takes courage and effort for individuals to transition from one position to the next. Teaching techniques need to meet students’ needs at their current level of development and challenge them to transition to the next stage. Importantly, about two thirds of students enter college in the position of dualism, most have transitioned to multiplicity or relativism by their junior year, but commitment is very rare among seniors at the time they graduate (Baxter Magolda, 1992). Therefore it is almost universal for college students to experience a difficult and lengthy process of replacing ignorant confidence with intelligent confusion.

Perry’s groundbreaking work, along with others such as Chickering & Reisser’s (1993) Education and Identity, are at the core of the research and practice of college student development. Professionals in college student services are well versed in the developmental trajectory, but professors, librarians and others outside that field are often not aware of the paradigm.
Interest Development

The second theory of direct relevance to the teaching of information literacy is Renninger's (2009) model of interest and identity development. Interest is defined as a learner's predisposition to re-engage in an activity or topic, and the psychological state that accompanies the engagement (Renninger, 2009). Interest is tied to identity because people represent themselves and form self-concepts around things of interest to them, e.g. soccer player, chess competitor, scientist. For teachers and librarians, one of the most insightful parts of the model is that learners want and need different types of challenges and feedback depending on their level of interest. Renninger's (2009) four phase model of interest development with its associated feedback wants and needs can be summarized as:

Phase 1: Triggered Situational Interest

The first phase of interest is initial attention to content, first exposure to ideas and processes. Students may have negative or positive reaction and they will need support to engage with the new material. Students at this phase want feedback that respects their ideas, recognizes this may be hard, and keeps things simple. They need encouragement and to be given a limited number of suggestions and explanations—enough to move forward without feeling overwhelmed.

Phase 2: Maintained Situational Interest

Learners re-engage with something with which they have some prior experience. They receive support from others, have positive feelings, develop knowledge and begin to recognize the value of the activity or content. They want concrete suggestions and to be told what to do. They need support and encouragement to explore ideas on their own and personally build upon what they are directly instructed to do.

Phase 3: Emerging Individual Interest

In this phase learners independently re-engage content and begin to ask questions out of curiosity. They have positive feelings and seek knowledge to answer questions they have of their own beyond what is required in the situation. At this emerging phase, learners do not want feedback asking them to revise efforts, as they want affirmation of their newly formed ideas.
The feedback they need is appreciation of their efforts and guidance for how to more effectively meet their individual goals.

Phase 4: Well-developed Individual Interest

Learners independently pursue knowledge, create curiosity questions, and pursue answers to their questions. At this stage learners recognize and value the contributions experts can make, and are ready for critical feedback. They want feedback that compares their work and ideas to standards within a discipline. They need constructive feedback that challenges them to rise to a level of expertise.

Students must make a connection to content for their interest to be triggered, and learning will not take place without development of interest (Renninger & Hidi, 2016). Neuroscience research has confirmed the common-sense notion that the development of personal interest is inherently rewarding (Hidi, Renninger, & Northoff, 2017). The challenge then for teachers is to recognize individuals’ phases of interest and design instruction and feedback to best support students’ interest development.

Self-direction

Of the three theories discussed here, Grow’s (1991) is the least well known. Gerald O. Grow was a journalism professor who published one rather speculative work on matching instruction to learners’ stages of self-direction. The voluminous literature in educational psychology on self-regulation has more depth and detail on the role of self-direction than Grow’s ideas (Black & Allen, 2017a). But Grow’s particular way of relating self-direction to students’ reactions to teachers’ styles (including on course evaluations) makes his work worth highlighting here.

Grow returned to higher education after fifteen years as a practicing journalist and was perplexed by students’ responses to his teaching:

Many [students] were passive and dependent upon being taught. Others resisted what I thought were learner-centered methods of teaching. A few became defiant, or defiantly indifferent. The response of one student, though, drove me to rethink what I knew about teaching. She hated me. . . .

While struggling with this problem, I found a concept around which to
organize my observations: Students have varying abilities to respond to teaching that requires them to be self-directing (Grow, 1991, p.125-126).

Grow (1991) described four stages of self-directed learning:

**Stage 1: Dependent**

Dependent students look to an authority figure to give them explicit directions. Dependent students lack self-direction but can be excellent at learning the basics of a discipline. However, they limit their potential due to their lack of willingness to take personal ownership of learning. They respond well to clear organization and a rigorous approach, and hate being forced to make choices about what and how to learn.

**Stage 2: Interested**

These students are available to be persuaded by enthusiastic teachers to become engaged in learning. They need a highly supportive approach that includes clear explanations of why assignments are relevant and what results are expected. Interested students respond well to teachers who provide strong interpersonal interactions and a clear focus on subject matter. Communication is two-way, but teaching is still quite directive.

**Stage 3: Involved**

Learners at this stage have an intermediate level of self-directedness. They have acquired skills and knowledge within the discipline and actively participate in their educations. Involved students are acquiring well developed critical thinking skills and begin to see themselves as both consumers and creators of knowledge. Effective teachers of involved students are facilitators and guides who help students structure their learning.

**Stage 4: Self-directed**

Fully self-directed learners work independently from instructors and take responsibility for their learning. They like being autonomous. The effective teacher of a self-directed learner delegates the learning process. The teacher monitors and consults as needed, but otherwise gives the learner independence.
Grow (1991) asserts that "Fully self-directed learning is not possible in an institutional setting . . . Rather, self-directed, lifelong adult learning is offered here as the single most important outcome of a formal education" (p. 135). For teachers in higher education, the main takeaway from this theory is to try to avoid mismatches between teaching styles and learners' stages of self-direction. A dependent learner will be angry and frustrated with a teacher who delegates to students the responsibility for learning. Conversely, a self-directed learner will chafe if forced to passively accept rigidly designed assignments that restrict freedom of choice. "Good teaching does two things: It matches the student's stage of self-direction, and it empowers the student to progress toward greater self-direction" (Grow, 1991, p. 140).

Parallels among the theories

These three theories were developed independently. Yet they have very clear similarities of direct relevance to the teaching of information literacy. Their main ideas are highlighted in Table 1.

Table 1: Highlights of Three Theories of Students' Growth as Learners

| Perry's positions | Renninger's levels of interest | Grow's stages of self-direction | Appropriate teaching styles |
|-------------------|-------------------------------|-------------------------------|-----------------------------|
| dualism           | triggered                     | dependent                     | Give authoritative, direct instruction |
| multiplicity      | situational                   | Interested                    | Motivate and guide, provide encouragement of individual goal-setting |
| relativism        | emerging individual           | Involved                      | Facilitate individual learning and give freedom to explore |
| commitment        | well-developed                | self-directed                 | Consult and challenge |

Obviously, Table 1 oversimplifies the theories and depicts as sharp lines what are in reality messy transitions. But juxtaposing models in this way does point out the interplay among cognitive development, interest development, and stages of self-direction. The lesson for
information literacy librarians is that we need to both align our instructional designs to students’ current position/level/stage and include challenges to encourage transition to the next level.

**Implications for Information Literacy Instruction**

In his writings and his work, Perry emphasized teachers’ dual duties to recognize which position students are currently at and help students transition to the next stage of development (Perry, 1999). Renninger (2009) explains that students at the triggered or situational phase of interest need to build a base of content knowledge, be shown models of how to connect to content, recognize the value of the content and be able to envision themselves as participants. Students need support all along their process of developing interest. Grow (1991) believed that self-directed lifelong learning is the overriding purpose of formal education. The implication then for information literacy instruction is to not only identify current needs of students and provide instruction that meets those needs, but also incorporate content that helps students transition to the next level. Every competent instruction librarian knows that instruction designed for first year students has to be different from that for seniors or graduate students. What these theories do for us is help provide guideposts for designing instruction across levels of experience.

The vast majority of first year students enter college in the dualist cognitive position, start most courses without previously developed interest in the topics, and depend on their professors to direct their learning. To put it in the words of these three theories, they are dualist, dependent learners whose interest needs to be triggered. Hinchliffe, Rand, & Collier (2018) note that a common misperception among first year students is that every question has a single answer. This misperception clearly fits Perry’s description of a dualist perception of knowledge. Hinchliffe et al. (2018) propose countering this misperception with the learning outcome “First year students understand that a research question may have more than one right answer, or no right answer, and that developing an answer to a question requires assessing the evidence that supports different answers” (p. 13). The first part of the learning outcome, realizing there may be no or more than one right answer, helps the student transition to multiplicity. The second part, assessing evidence, helps them transition to relativism. If we take Perry’s developmental scheme seriously, we realize that those two learning outcomes will not be achieved at the same time. The student first has to come to grips with there being no one right answer. Only when they have internalized that will they be able to meaningfully assess evidence.
Perry counsels patience and understanding for students transitioning from dualism to multiplicity to relativism, noting that we can expect students to have pauses and times of reversion to earlier positions.

“We have to allow for grief in the process of growth, especially in the rapid movement from the limitless potentials of youth to the particular realities of adulthood. Each of the upheavals of cognitive growth threatens the balance between vitality and depression, hope and despair. It may be a great joy to discover a new and more complex way of thinking and seeing; but yesterday one thought in simpler ways, and hope and aspiration were embedded in those ways. . . .It appears that it takes a little time for the guts to catch up with such leaps of the mind” (Perry, 1981, p. 108).

One implication of the time that is needed to transition to new modes of thinking is that single courses in information literacy can only have limited effectiveness. Students must have time to develop the intellectual maturity required to become fully information literate. The best we can hope for with a credit course offered early in students’ careers is to help them build the requisite knowledge base to continue learning, and perhaps later recall more advanced concepts that were introduced to them before they were ready to apply them in their own learning. King & Kitchener (1994) found that even among college seniors, only about 20% had yet attained what they call independent and contextual ways of knowing, which parallels relativism, emerging individual interest, and involvement in the self-direction of learning. It does no good to be frustrated with first year students when they do not quickly grasp the concepts in the Framework. Patience is in order.

Having said that, the principle of threshold concepts that underpins the Framework for Information Literacy for Higher Education (American Library Association, 2015) provides a valuable perspective for designing instruction that helps students transition to more mature levels of cognitive development, personal interest and self-directed learning. The acquisition of a threshold concept might not map exactly to a transition to a new way of knowing, but crossing thresholds is certainly key to the developmental process. Still, I sympathize with criticisms of the decision to officially replace the Standards (American Library Association, 2000) with the Framework, particularly from the perspective of librarians in community colleges. Reed (2015) mapped the Standards to the Framework and noted many good matches between them, but also highlighted areas where the Framework is problematic for teachers of community college students. For example, the frame “Authority is Constructed and

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Contextual” can be addressed on a basic level of understanding why authority matters and using criteria to determine credibility. But the knowledge practice “acknowledge they are developing their own authoritative voices in a particular area and recognize the responsibility this entails” (American Library Association, 2015, p. 13) requires well-developed personal interest, a position of relativism, and personal involvement in learning. Those levels of intellectual maturity cannot be expected of community college students.

Reed’s (2015) careful and well-reasoned analysis of the applicability of the Framework to community college students does not refer to the models presented here. What the work of Perry, Renninger, and Grow does for us is supply grounded theories to explain why the effective teaching of information literacy must match students’ levels of development. A person can be truly information literate as defined in the Framework only upon becoming committed, self-directed, and in possession of well-developed personal interest. As noted above, King & Kitchener (1994) found no more than 20% of college seniors have achieved that level of intellectual and personal development. The overall goal of information literacy instruction is to get everyone to that advanced level. We just have to be realistic about how fast college students can get there.

Librarians should not be too hard on ourselves about the limited effectiveness of one-shot instruction sessions. Single sessions can play an important role in the development of the foundational knowledge required for learners to become interested in new topics and engage with new and challenging ideas. An important takeaway is that triggering interest should be a top priority. That requires knowing our audiences and thinking carefully about which examples are most likely to pique students’ interest.

Another important implication of these theories is the important role of librarians as consultants. Reference librarianship is teaching by different means. We can play a critical role in helping self-directed learners develop their individual interests and join the scholarly conversation. We can also play an important role in the overall educational missions of our institutions. The editor of the freshly renamed Journal of College Student Development said “For others on campus (e.g. administrators, faculty, scholars), I hope the message [of the name change from Journal of College Student Personnel] is they are welcome to join in the student development mission by reading the Journal, learning from it, citing it, and contributing to it” (Brown, 1988, n.p.). Unfortunately, since the jobs of student services personnel often focus on housing, judicial boards, campus activities and the like, their knowledge of students’ normal cognitive development has not always gotten the recognition it deserves from professors and librarians.
It has struck me often in the course of reading literature in college student development and educational psychology how invisible librarians are to researchers in those fields. One has to look long and hard in books on effective college teaching to find even a passing reference to our roles in the educational process. But if we can become conversant in their disciplines, perhaps we can become more visibly engaged in the scholarship of teaching and learning. The models presented here are a decent place to start.

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