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Insights from Educational Psychology Part 3: College Student Development

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Insights from Educational Psychology Part 3: College Student Development

Abstract: Young adults in college grow cognitively, socially, and emotionally. Educational psychologists have described students' growth with models that include advancing stages in ways of knowing, aka epistemic beliefs. The typical progression of epistemic beliefs begins with dualism and progresses to multiplicity, then to relativism, and finally to commitment in relativism. Freshmen almost all have a dualist or multiplist way of knowing and do not progress to relativism without guidance and instruction. This normal evolution in ways of knowing has important implications for teaching information literacy within the ACRL's *Framework*.

“People grow best where they continuously experience an ingenious blend of support and challenge.” Robert Kegan (1994, p. 42)

People do not magically become mature adults at eighteen or twenty-one. Life's normal process of cognitive and moral developmental includes a crucial transitional phase that traditionally coincides with undergraduate education. Kegan (1994) reasoned that adapting to the complex demands of adult life requires not just learning new skills, but also reaching new “thresholds of consciousness” (p. 164). Good teachers guide students to new thresholds of consciousness by meeting them where they are, understanding what they know, and being aware of how they understand their knowledge (Kegan, 1994, p. 278). Epistemic beliefs, how one understands what knowledge is, plays a fundamental role in learning. All individuals learn within the context of personal assumptions about knowledge, truth, authority, and inquiry (Kurfiss,

1988, p. 51). These assumptions evolve over time and are key components in the development of critical thinking.

Educational psychologists have learned a great deal about cognitive development in children. Piaget's (1932) pioneering descriptions of how children's thinking and reasoning evolve as they grow continue to be very influential. We will not attempt to summarize here the vast literature on children's cognitive development, but will rather focus on what researchers have found regarding the continuing development of young adults in college. Metacognition, thinking about how one thinks, is fundamental to cognitive growth. Kuhn and Dean (2004) eloquently explained why teachers must understand the role of metacognition in the development of critical thinking, and why we need a "roadmap of what is developing and what needs to develop" (p. 269). Our goal here is to describe for librarians a basic roadmap of college students' typical progression in ways of knowing.

Theories of College Student Development

Psychologists have studied college students' development from many perspectives, addressing behavior, morals, personality types, and ways of interacting with others. Chickering and Reisser (1993) synthesized the multiple aspects of development in a model based on seven vectors. They hypothesized these general developmental directions in college students:

- developing competence
- managing emotions
- moving through autonomy toward independence
- developing mature interpersonal relationships
- establishing identity
- developing purpose

- developing integrity (Chickering and Reisser, 1993).

The seven vectors do not develop in any particular order, but the first four are generally considered prerequisite for establishing identity and developing purpose and integrity. Part 2 of *Education and Identity* (Chickering and Reisser, 1993) described how various elements of the college experience influence development and offered specific recommendations for how to nurture students' growth. The authors do not specifically address the role of librarians, but they make clear that all interactions with students impact identity development.

A broad perspective encompassing all adults in college or not is Erikson's (1980) theory of psychosocial development. According to his theory the adolescent/early-adult stages focus on identity and intimacy (mature interpersonal relationships), which leads to mid-late adult stages of generativity (a sense of purpose and accomplishment), then finally to integrity (the wisdom of old age). The childhood stages of autonomy, initiative, and industry prepare individuals for healthy adolescent and adult psychosocial development (Erikson, 1980).

The voluminous literature on college student development includes many topics such as counseling that are not directly relevant to librarianship. So we will focus for the balance of this column on theories of cognitive development and how they apply to critical thinking and information literacy. For those interested in the full breadth of college student development, a good overview is *Student Development in College* (Patton, Renn, Guido, and Quaye, 2016).

Philosophers and psychologists have long been interested in how humans develop intellectually, but the first major study to specifically focus on undergraduate students was Perry's (1970) series of interviews with male students at Harvard (plus a handful of females from Radcliffe). He developed a scheme of development based on nine positions ranging from dualism (everything is black and white, and knowledge is passed down from authorities) through

relativism (various points of view are equally valid) to making commitments in a world that is understood to be complex. Students generally develop steadily through the positions, but may escape or retreat when challenges seem overwhelming (Perry, 1970). A major implication of his findings is:

"the most difficult instructional moment for the students--and perhaps therefore for the teacher as well--seems to occur at the transition from the conception of knowledge as a quantitative accretion of discrete rightnesses (including the discrete rightnesses of Multiplicity in which everyone has a right to his own opinion) to the conception of knowledge as the qualitative assessment of contextual observations and relationships" (Perry, 1970, p. 210).

This point is reinforced by a related model described by Deanna Kuhn (Kuhn and Dean, 2004). According to Kuhn's model, the epistemological transition from absolutist to multiplist views of knowledge occur naturally as one grows through adolescence. The absolutist and multiplist views of knowledge do not require critical thinking. The teenage multiplist says "whatever" to seemingly everything because equating knowledge with personal preference leaves no reason to engage in genuine inquiry (Kuhn and Dean, 2004). However, critical thinking is essential to the ability to evaluate evidence and make mature judgments. Instruction is required to attain the realization that knowledge is uncertain but can and should be evaluated. Absent guidance there is not a natural development to this level of epistemological understanding. "It is helping young people climb out of the multiplist well that requires the concerted attention of parents and educators" (Kuhn and Dean, 2004, p.272-273). Librarians, too, need to guide students to help them become mature critical thinkers.

Perry's (1970) interview method and findings were and remain highly influential, but educational psychologists naturally questioned the generalizability of a study of male students at Harvard. Belenky, Clinchy, Goldberger and Tarule (1986) used a similar interview method with female undergraduates and women not attending college. They discovered that women experience a similar process of cognitive growth, except they are more likely to value connections with others, and women struggle more to find their own voice (Belenky et al., 1986). They discovered and described seven ways of knowing:

- silence
- listening to the voices of others
- the inner voice
- the quest for self
- the voice of reason
- separate and connected knowing
- integrating the voices (Belenky et al., 1986)

Finding the inner voice and the quest for self are part of an epistemic belief that knowledge is subjective, which parallels Perry's (1970) position of relativism. However, Belenky et al. (1986) point out that while males are likely to believe they have the *right* to an opinion, females tend to take the modest stance of it's *just* my opinion (p. 66). Women who are able to integrate their voices have gained the insight that "all knowledge is constructed, and the knower is an intimate part of the known" (Belenky et al., 1986, p. 137).

Baxter Magolda (1992) also interviewed undergraduates to gain further understanding of cognitive development in college students. She described four patterns in knowing:

- absolute knowing: receiving and mastering knowledge from authorities

- transitional knowing: gaining personal understanding, having some degree of uncertainty
- independent knowing: thinking for oneself; expressing opinions
- contextual knowing: comparing perspectives and judging them based on evidence and context (Baxter Magolda, 1992).

Baxter Magolda (1992) reported that 68% of freshmen were at the stage of absolute knowing, 32% were in transition, and none were yet independent or contextual knowers. By their junior year, 83% had become transitional knowers. Independent and contextual ways of knowing remain uncommon even among seniors, and only become the dominant ways of knowing after graduation (Baxter Magolda, 1992, p. 70-72). Effective instruction addresses students' current epistemic beliefs. Instructors of absolute knowers should demonstrate helpfulness, those in transition need relatedness and demonstrations of care, those becoming independent should be treated as equals, and contextual knowers are ready to engage in collegial relationships with experts in their discipline (Baxter Magolda, 1992). She noted that gender differences in ways of knowing are not at all absolute, and she emphasized the key role of connectedness for both genders to develop contextual knowing (Baxter Magolda, 1992).

King and Kitchener (1994) developed a model of epistemic beliefs and cognitive development based on stages of reflective judgment. Of central importance to their work was the nature of ill-defined problems (questions with no one correct answer). Since the research questions college students tackle for writing assignments are typically ill-defined problems, the King and Kitchener (1994) model is particularly relevant to library use and information literacy. Reflective judgment advances through seven stages, illustrated by how a person at each stage might express their view of knowledge:

1. Knowledge is absolute and concrete: *I know what I have seen.*

2. Knowledge is certain but may not be available: *If it's on the news, it has to be true.*
3. Knowledge may be temporarily uncertain: *When there is convincing evidence it's knowledge, until then it's just a guess.*
4. Knowledge is individual: *There's no proof how the pyramids were built. Who can you ask? No one was there.*
5. Knowledge is contextual and subjective: *People think differently. Other theories can be as good as mine, just using different evidence.*
6. Knowledge is constructed into individual conclusions: *It's difficult to be sure, you just reach a point where you're sure enough to take a personal stance.*
7. Knowledge is the outcome of reasonable inquiry: *One can judge an argument based on reasoning, evidence, and consistency* (King and Kitchener, 1994, p. 14-16).

Working with others, King and Kitchener (1994) conducted a ten-year longitudinal study of reflective judgment among high school juniors, college juniors, and doctoral students. The high school juniors began with an average of stage 2.8, and after ten years averaged 5.3. That is, on average, the individuals started at the stage of believing that knowledge is temporarily uncertain, and ended believing knowledge is contextual and subjective. The college juniors began at 3.8, and ended at 5, while the doctoral students began at 5.7 and ended at 6.2 (King and Kitchener, 1994, Table 6.3, p.133). Reflective judgment develops gradually over time and does not follow a neat pattern, but each stage builds on prior stages. For example, a student must learn to recognize the role of evidence before they can compare and contrast, and be able to analyze competing points of view before they can construct a well-reasoned argument (King and Kitchener, 1994, p. 152).

These models of college students' cognitive development have received some attention in the library literature. Gatten (2004) summarized the theories of Perry (1970) and Chickering & Riesser (1993) and related them to Kuhlthau's (1991) Information Seeking Process model and the ACRL's *Information Literacy Competency Standards* (American Library Association, 2000). Jackson (2007) related insights from Perry (1970), King and Kitchener (1994), and Baxter Magolda (1992) to the *Information Literacy Competency Standards* (American Library Association, 2000). She then mapped those standards to Perry's (1970) positions of cognitive development and King and Kitchener's (1994) stages of reflective judgment (Jackson, 2008).

Effective information literacy instruction must take into account college students' cognitive developmental processes. Since development is ongoing, librarians need sustained interactions with students to successfully introduce progressively more complex and nuanced understandings of information literacy. Descriptions of how to incorporate awareness of cognitive development into library instruction include Wong (2010) and Benjes-Small, Archer, Tucker, Vassady, and Resor (2013). Hofer's (2004) investigation into the role of epistemic beliefs in students' online search behaviors found that many students have "very limited understanding of how knowledge in a field evolves, what counts as authoritative, and why" (p. 53).

Stages of Epistemic Beliefs (Ways of Knowing)

The models of cognitive development summarized above share common themes, but use different terminology and organizational models. Here we present a simplified model that synthesizes the main ideas.

Dualism

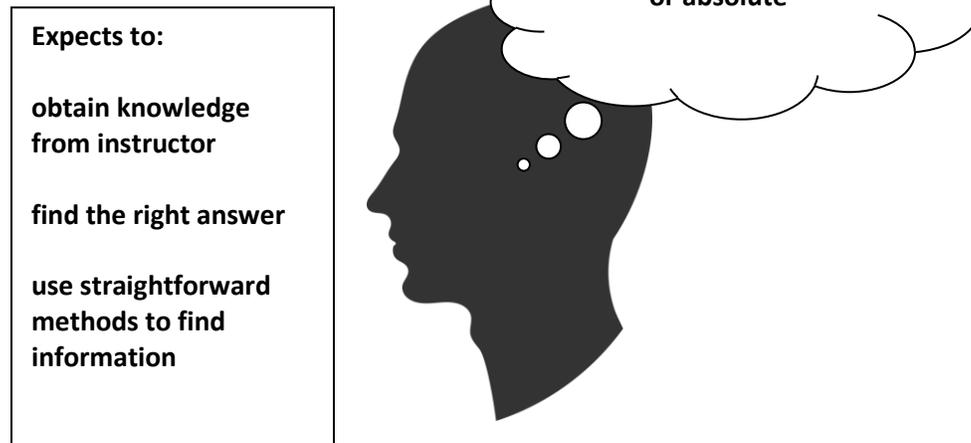


Figure 1: First Stage of Epistemic Belief

In this initial stage of epistemic belief, the dualist student believes that gaining knowledge is a process of discovering known truths. Knowledge is handed down from authorities, and learning happens by absorbing existing information. Students at this stage have difficulty understanding the difference between interpretation and opinion, using evidence to support an argument, and appreciating the validity of multiple points of view (King and Kitchener, 1994, p. 251). If a person holds this absolute view of knowledge, they will believe that facts are readily discoverable and will see no point in critically evaluating information (Kuhn and Dean, 2004).

Multiplicity

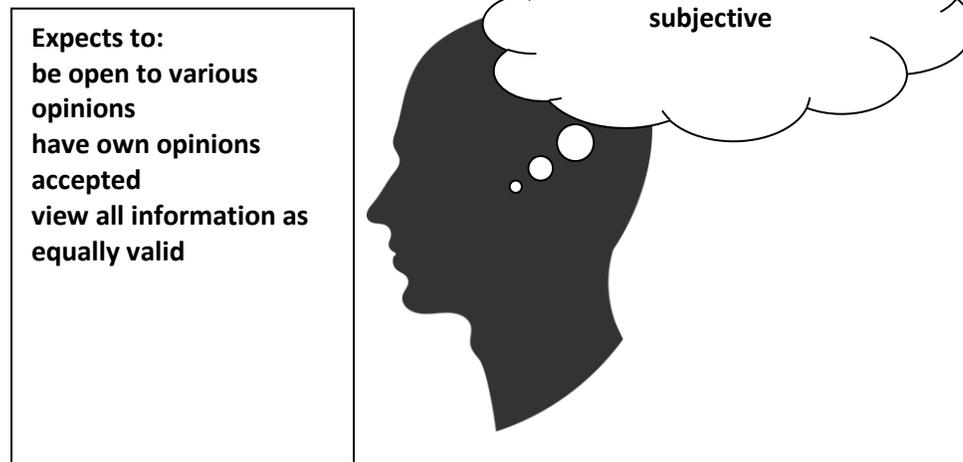


Figure 2: Second Stage of Epistemic Belief

The shift from dualism to multiplicity has been aptly described as a process of abandoning ignorant certainty for intelligent confusion (Kroll, 1992). In this stage of epistemic belief the student realizes that knowledge is not absolute, and shifts to believing that knowledge is subjective. Students who believe knowledge is subjective tend to assume that all opinions are equally valid. If every opinion is equally valid, critical evaluation is pointless. They have difficulty understanding that opinions should be based on evidence and have trouble distinguishing bias from legitimately different interpretations (King and Kitchener, 1994, p. 252).

Relativism

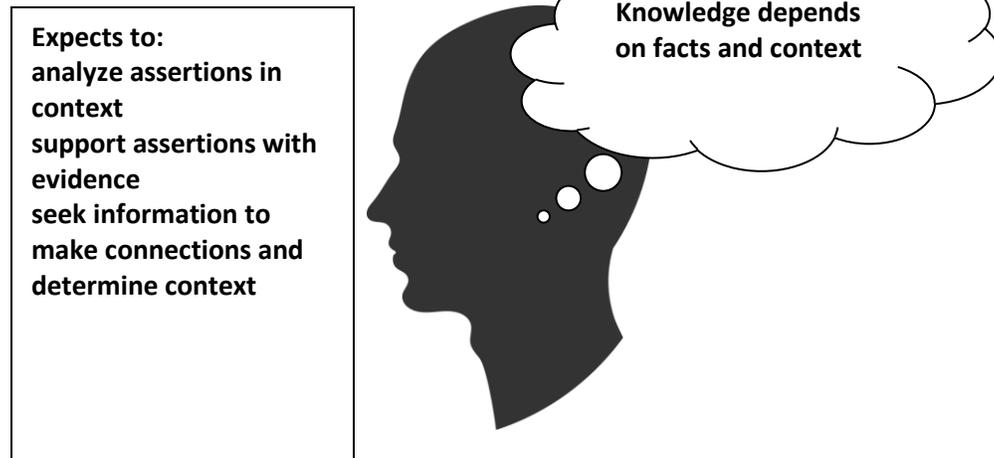


Figure 3: Third Stage of Epistemic Belief

The stage of relativism is characterized by awareness of the role of facts and evidence in formulating points of view. The student moves beyond thinking that all opinions are equally valid and appreciates the importance of discovering and including information from various perspectives. Students in this stage may still struggle with deciding which points of view are the most valid. But they have come to understand that critical thinking is a valuable tool for making judgments (Kuhn and Dean, 2004). A student at this stage is able to compare perspectives, think through problems, and integrate and apply knowledge (Baxter Magolda, 1992).

Commitment in Relativism

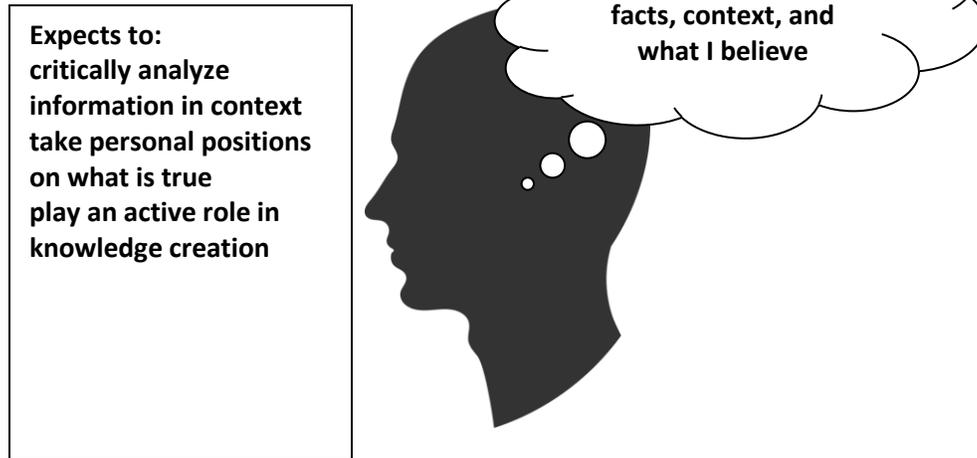


Figure 4: Final Stage of Epistemic Belief

In the most advanced stage of epistemic belief, students have learned how to find and evaluate information representing various points of view, and have also recognized their personal role in knowledge formation. It appears rather rare for people to attain this advanced level of understanding. Baxter Magolda (1992) found only two percent of college seniors attained this level, rising to 12% a year after graduation. Perry (1970) identified only 13 out of the 110 seniors in his study as having attained commitment in relativism. Even the doctoral students in King and Kitchener's (1994) longitudinal study had not all attained this level, but they did exhibit continued growth. Life experience and an open attitude are necessary to internalize commitment in relativism.

The challenge for teachers and librarians is how to best provide modeling and support to help students develop their metacognitive skills and epistemological understanding. King and Kitchener (1994) note that people have a typical functional level of reflective reasoning, but are capable of an optimal level of advanced reasoning in supportive conditions. It probably boils

down to the type of assignments college students are given by college instructors. The problem is that most college instructors (perhaps excepting the fields of education and psychology) are not aware of the developmental aspects of critical thinking and assume that even first-year college students should possess advanced critical thinking skills. The consequence for students asked to do library research was described by Leckie (1996) as "desperately seeking citations"--floundering about when given an assignment by a professor who assumed students share approximately their own levels of information literacy. To help this situation, Kuhn and Dean (2004) advocated requiring high school students to practice argumentation and debate to develop the ability to think critically using evaluative criteria. If argumentation and debate are not done at the high school level (which it rarely is) then it needs to occur once students get to college.

Cognitive Development and Information Literacy

As we have described above, students move slowly from one developmental stage to the next, and can only attain new thresholds of consciousness regarding their way of knowing one step at a time. Two thirds of freshmen and almost half of sophomores are dualists, and relativism remains uncommon even among seniors (Baxter Magolda, 1992, p. 71). In short, the majority of students entering college are not yet developmentally ready to integrate and apply knowledge in context to the extent desired by professors and librarians. According to Baxter Magolda (1992), about half of sophomores are in the transitional stage of multiplicity, as are the overwhelming majority of juniors and seniors. The optimal level of challenge for these undergraduates is to require them to articulate evidence-based reasons to back their opinions (Kurfiss, 1988).

The *Framework for Information Literacy for Higher Education* (2015) describes very well the information literacy possessed by people who have obtained the most mature levels of reflective judgment or contextual knowing. Much of the language used by developmental psychologists to

describe the most mature stage of cognitive development is strikingly similar to the language of the *Framework* (2015). King and Kitchener's (1994) Concept of Justification, the highest level of reflective judgment in their model, is attained when:

“beliefs are justified probabilistically on the basis of a variety of interpretive considerations, such as the weight of the evidence, the explanatory value of the interpretations, the risk of erroneous conclusions, the consequences of alternative judgments, and the interrelationships of these factors. Conclusions are defended as representing the most complete, plausible, or compelling understanding of an issue on the basis of the available evidence”
(p. 72).

The *Framework* calls for students to “use research tools and indicators of authority to determine the credibility of sources, understanding the elements that might temper this credibility” (p.12) and be “conscious that maintaining these attitudes and actions requires frequent self-evaluation” (p. 13). Students are to “draw reasonable conclusions based on the analysis and interpretation of information” (p. 18), and “seek multiple perspectives during information gathering and assessment” (p. 19). The whole of the *Framework*'s Searching as Strategic Exploration (p.22-23) can only be fully attained by individuals with very well developed reflective judgment.

Baxter Magolda (1992) describes contextual knowing, the most mature level of cognitive development in her model, as:

“Thinking for oneself [is] the defining characteristic of contextual knowing, but there is a change from thinking totally independently

to thinking for oneself within the context of knowledge generated by others” (p. 168).

Compare this to the *Framework*'s Scholarship as Conversation, which calls on learners to “critically evaluate contributions made by others in participatory information environments” (p.20) and “see themselves as contributors of scholarship rather than only consumers of it” (p. 21).

The *Framework*'s “renewed vision of information literacy as an overarching set of abilities in which students are consumers and creators of information who can participate successfully in collaborative spaces (p. 8)” is laudable. Information literacy is clearly an essential component of reflective judgment, mature ability to think critically, and understanding that knowledge is created in context. The *Framework* replaced the *Information Literacy Competency Standards for Higher Education* (American Library Association, 2000), which were rescinded by the Association of College and Research Libraries Board of Directors in June 2016. The timing and process of fully replacing the *Standards* with the *Framework* has been criticized by some librarians as not being adequately responsive to local needs (Bombardo, 2016). Librarians and teachers need support just as much as students need support. Rescinding the *Standards* leaves in question the role of important supporting documents like the Association of American Colleges & Universities' (2013) V.A.L.U.E. rubric for assessing students' levels of information literacy.

The new *Framework* is focused on the important role of metacognition and intentionally avoids establishing learning outcomes. This leaves teachers of students with a dualist way of knowing, meaning about 70% of college freshmen (Baxter Magolda, 1992, p. 71), in a difficult spot. These freshman are just beginning to develop the desired metacognitive skills, yet many

librarians are expected to assess information literacy as defined in ways that require mature levels of cognitive development.

The *Standards* may have been more skill-based and perhaps easier to assess than the *Framework*. But Jackson's (2008) mapping of the *Standards* to stages of cognitive development make clear that advanced levels of reflective reasoning and contextual knowing were required to meet its definition of information literacy, too. The *Framework* does an excellent job of describing cognitively mature information literacy. But now librarians need to develop tiered learning goals that reflect understanding of the stages of cognitive development we have summarized here. Librarians and college instructors will need to collaborate to develop curricula that match students' developing metacognitive skills and epistemological understandings. One source of guidance for that effort is King and Kitchener's (1994) guidelines for promoting reflective thinking, which include goals, difficult tasks, sample assignment ideas, and appropriate developmental supports (p. 250-254).

In our next column we will describe what educational psychologists have discovered about the roles of academic self-concept and emotions in learning. We will emphasize the impact of confusion and anxiety on students conducting library research.

Takeaways for Librarians

- Libraries are a place to interact with peers and authority figures, and thus play a role in students' developing competence, managing emotions, becoming independent, and developing mature interpersonal relationships.
- Students grow in their ways of knowing when given appropriate challenges and supports.
- The process of moving from one developmental stage to the next is likely to cause students to feel uncomfortable or anxious.

- Given appropriate instruction, students can achieve at one level of metacognition above their comfort zone. But it is unreasonable to expect a dualist (about 70% of freshmen) to analyze evidence in context and relate it to personal beliefs.
- Since most freshmen are dualists or multiplists, instruction should match those ways of knowing while also pushing them to grow. For example, the ultimate goal of teaching that authority is constructed and contextual requires first teaching how to recognize authoritative sources, then to compare sources to identify various points of view. Only when that foundation is laid can students be expected to critically analyze the authority of sources.
- The central challenge of college education is to lead students from the multiplist point of view that knowledge is subjective opinion to recognizing that knowledge depends on facts and context. Be aware of and sensitive to this crucial transformation in perspective that typically occurs in the sophomore and junior years.
- Regardless of their level of cognitive development, students need to be validated as knowers and knowledge creators, and they must experience connections with professors (including librarians) and peers to grow as learners.
- Information literacy programs need to be sustained throughout students' college careers, and be structured based on an understanding of developing ways of knowing.
- Assessment of students' information literacy should be tiered to appropriately reflect what they are capable of at their current levels of cognitive development.

Recommended reading

Baxter Magolda, M. B. (1992). *Knowing and Reasoning in College*. San Francisco, CA: Jossey-Bass.

Marcia Baxter Magolda conducted a longitudinal series of interviews with female and male students at Miami University in Oxford, Ohio to investigate their evolving ways of knowing. She described an epistemological reflection model of how students view the nature of knowledge. Students in the absolute domain see knowledge as certain and handed down by authority. Students in transition view knowledge as partially certain and partially uncertain. Those in the independent domain see knowledge as uncertain, as everyone has their own beliefs. The most developmentally mature students recognize knowledge as coming from examining evidence in context. Regardless of the domain they inhabit, students need to be validated as knowers and knowledge creators, and they must experience connections with professors and peers to grow as learners.

Belenky, M. F., Clinchy, B. M., Goldberger, N. R., & Tarule, J. M. (1986). *Women's ways of knowing: The development of self, voice, and mind*. New York, NY: Basic Books.

The authors conducted a longitudinal study emulating Perry's (1970) method, except their subjects were 135 women, 90 college students and 45 recruited from human service agencies. They described five ways of knowing: silence, receiving knowledge from others, viewing knowledge as subjective, procedural knowledge (reasoned reflection in context), and constructed knowledge (recognition that one's own voice and the voices of various authorities construct knowledge in specific contexts). Women's cognitive development was found to be similar to that of the men in Perry's (1970) study, except women tend to place greater emphasis on connectedness and collaboration. Females also face societal challenges to developing a voice of their own and having that voice heard. The book concludes with recommendations for how educators can better meet the needs of women learners.

Chickering, A. W. & Reisser, L. (1993). *Education and Identity* (2nd ed.). San Francisco, CA: Jossey-Bass.

Arthur Chickering and Linda Reisser's work is a foundational text for the field of college student development. Their model of development describes seven vectors that map the paths students typically take as they grow: developing competence, managing emotions, moving through autonomy toward independence, developing mature interpersonal relationships, establishing identity, developing purpose, and developing integrity. They emphasize that to effectively support students' maturation along those vectors, instructors (and by implication librarians, too) need to be accessible, authentic, knowledgeable, and be good listeners who exhibit respect for students' thoughts. To grow along the vectors, students need to encounter diverse perspectives that challenge their assumptions and values. Chapter 13 outlines principles for good teaching of undergraduates.

Jackson, R. (2008). Information literacy and its relationship to cognitive development and reflective judgment. *New Directions for Teaching & Learning*, 114, 47-61. doi:10.1002/tl.316

Rebecca Jackson compared Perry's (1970) positions of development with King and Kitchener's (1994) stages of reflective development, then mapped those to the ACRL's *Information Literacy Competency Standards for Higher Education*. She grouped the developmental stages into three major categories: dualistic, multiplistic, and relativistic. Many of the desired learning outcomes are beyond the capacity of dualistic thinkers, and can only reasonably be expected of graduating seniors. Librarians need to acknowledge that when a student is moving from one developmental stage to the next they are likely to feel uncomfortable or anxious. Instruction needs to take into account students' current levels of cognitive development to most effectively guide their growth.

King, P. M., & Kitchener, K. S. (1994). *Developing Reflective Judgment: Understanding and Promoting Intellectual Growth and Critical Thinking in Adolescents and Adults*. San Francisco, CA: Jossey-Bass.

Patricia King and Karen Kitchener conducted a ten year study of students' growth in reflective judgment, which is their ability to evaluate information and to explain and defend their points of view. Seven stages of reflective judgment are: 1) rigid belief based on personal observation, 2) rigid belief based on knowledge received from authority, 3) awareness of various points of view, but reliance on authority for knowledge, 4) recognition of various points of view with a belief that opinions are all equally valid, 5) knowledge is subjective but based on interpretation of evidence, 6) evidence and opinion are weighed to come to conclusions, and 7) knowledge comes from carefully weighing all available evidence. They found college freshmen are typically in stages 3 or 4, and that almost all students improve their critical thinking abilities over time.

Patton, L. D., Renn, K. A., Guido, F. M., Quaye, S. J., Evans, N. J., & Forney, D. S. (2016). *Student development in college: Theory, research, and practice* (3rd ed.). San Francisco, CA: Jossey-Bass.

The primary audience for this standard textbook is graduate students preparing to work in college student affairs. Part Three is of the most interest to librarians, as it focuses on psychosocial, cognitive-structural, and integrative development. Various developmental theories are described and critiqued based on current research. The thoroughness of the authors in presenting various points of view is evidenced by the seventy page bibliography. The breadth, depth, currency and readability of this text make it an excellent starting point for anyone interested in the broad range of topics of interest to professionals in college student development.

Perry, W. G. (1970). *Forms of intellectual and ethical development in the college years: a scheme*. New York: Holt, Rinehart and Winston.

William Perry and his team of researchers interviewed undergraduate volunteers at Harvard and Radcliffe from 1954 to 1963 to measure their educational views. Analysis of the interviews led to a scheme of nine positions of growth from dualism (right/wrong, us/them) through relativism to a commitment in relativism, whereby students understand various points of view and use reasoned analysis to form identity and make commitments. Despite the age of the study and the sample of white, mostly male students at an elite college, Perry's interview method and model of intellectual and moral growth remain foundational to the understanding of college student development.

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