AVID *for* Higher Education: High Engagement Practices for Teaching and Learning

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Table of Contents

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AVID **History and Philosophy**

What started with just one dedicated teacher and 32 students is today the largest college readiness and success system in the nation, impacting thousands of schools and colleges and almost two million students across the United States and the world. With more than three decades of research, AVID proves that low-income students from limited educational backgrounds can succeed at the highest levels when given support. The first AVID Elective class assembled in 1980—led by English teacher Mary Catherine Swanson—is a testament to the efficacy of educators everywhere. Today, the average enrollment and retention rates in 2- and 4-year colleges for students from the AVID Elective class is on par with and often exceeds national averages (see www.avid.org for the most up-to-date AVID data). This is exceptional considering that AVID Elective class students come from low-socioeconomic-status households at a rate almost two times higher than the nation overall. Because AVID is a system of "best teaching," its practices resonate with all students and educators, creating sustainable, impressive results.

Beginnings/Origin

The impetus for the creation of Advancement Via Individual Determination (AVID) was federal court-ordered integration of the San Diego Unified School District after the courts ruled that 23 San Diego area schools were "racially isolated." In 1980, a largely ethnically diverse group of 500 low-income students were bused to the Clairemont High School campus, creating disruption at this suburban, middle-class school. Despite their educational gaps, Swanson believed that with individual determination, hard work, and support, capable—but underachieving—students could succeed in rigorous curriculum and in college. From that belief, and despite resistance and doubt from her colleagues, AVID was born.

Vision of Schoolwide/Campuswide and AVID Curriculum

Swanson knew from the beginning that student success would only come with a vision that encompassed schoolwide understanding of sound educational practices. The AVID Site Team became an essential tool to foster growth of professional learning and curriculum that would ensure student success.

Today, AVID's professional learning ensures that all educators are properly trained in the WICOR® framework and given the support they need. Now AVID provides world-class professional development opportunities to tens of thousands of educators each year.

AVID for Higher Education (AHE) builds on AVID's more than 30-year history of successfully preparing elementary and secondary students for college and career readiness. As AVID students entered higher education, college faculty and staff recognized the difference in the skill development of those students. In 2009, college leaders asked AVID to help college students just as it had helped at-risk students in high school.

AHE may be described as an integrated, research-based, college success system designed primarily for underrepresented students who have the determination to succeed and for campuses committed to promoting their students' success. AVID is holistic, engaging the whole student and the whole campus, creating a comprehensive, cross-divisional infrastructure with the potential to generate synergistic effects on student success. Its sustainable and transformative work is built on a solid base of research evidence that spans multiple campus sites, multiple research methods, and multiple points of assessment that track students' progress across time. But most importantly, it is customizable—tailored to "fit" students' and campuses' needs.

AHE works to provide colleges campuswide support for all their students to increase student retention, persistence, and graduation. It helps to build bridges within institutions, breaking down silos and supporting a collaborative approach to student success.

In 2011, AVID also initiated the Teacher Preparation work, partnering with college and university education programs to develop pedagogical and pre-service experiences that increase the capacity of future teachers to support a college-going culture. AHE Teacher Preparation provides teacher candidates with a deep understanding of, and practical experience with, AVID frameworks, methodologies, and strategies so they enter the teaching field having analyzed and practiced instructional strategies that make them successful in meeting a broad spectrum of students' needs.

AVID's Focus on All Students

At the core of AVID's mission is the belief that all students can successfully achieve when they are held to high expectations and properly supported. Woven throughout AVID's curriculum and philosophy are the Culturally Relevant Teaching practices that help educators build authentic relationships, hold high expectations, empower student voices, engender self-advocacy, respect experiences, and build on assets. Together, these practices help foster a learning environment that is safe and empowers students to grow intellectually. In addition, AVID's curriculum incorporates a wide variety of English Language Learner strategies to purposefully support English language acquisition and promote the utilization of academic language to develop literacy and ensure college readiness and success.

How It Works

AVID works through transforming four key domains of operations: Instruction, Systems, Leadership, and Culture. By focusing on these domains, AVID's philosophy and methodologies become deeply ingrained, and the benefits of AVID are widely experienced. When educators participate in professional learning opportunities, implement WICOR strategies, and commit to success, they produce a learning environment where all students are equipped to tackle complex issues, problems, and texts.

WICOR: AVID's Foundation for High Engagement Teaching and Learning

AVID's proven learning support framework is known as WICOR, which incorporates teaching/learning methodologies in the following critical areas: Writing to learn, Inquiry, Collaboration, Organization, and Reading to Learn. WICOR provides a learning model that faculty can use to guide students to comprehend materials and concepts, and articulate ideas, at increasingly complex levels (scaffolded) within developmental, general education, and discipline-based curricula in their major.

Furthermore, the WICOR model reflects and promotes the expertise and attitudes that will serve students well in life beyond college graduation. Surveys of employers indicate that they seek college-educated employees who have strong interpersonal skills, communicate well, and have the ability to develop creative solutions to new problems in collaborative ways. AVID's scaffold of social and academic structures instills these qualities, while at the same time improving outcomes in academic performance, building critical reading and thinking skills for rigorous fields of study, using writing as a powerful thinking and communication tool, and fostering collaboration among students, teachers, and other professionals within higher education and the "real" world of working and living.

W: Writing to Learn

Writing is basic to thinking, learning, and growth, requiring students to consider issues in new, complex ways, contributing to self-knowledge, and helping them to clarify and order experience and ideas. Writing consists of an essential, complex set of tools that enhance critical thinking—good writers tend to be good thinkers, and improving cognitive skills enhances one's writing ability. According to a survey of college students conducted by Richard Light (2001), students reported that the level of writing required was directly related to their engagement in their academic work. This relationship was stronger than the students' engagement in any other course characteristic.

I: Inquiry

Critical thinking is a term commonly used in higher education to refer to a generic set of complex but ill-defined cognitive processes. The Foundation for Critical Thinking noted that "thinking is not driven by answers but by questions," positioning inquiry as foundational to the higher-level cognition required for college success. AVID's emphasis on inquiry focuses on the application of Costa's three levels of "intellectual functioning," whereby learning to ask progressively more complex questions is scaffolded and students become progressively more metacognitive—aware of their own thinking processes.

C: Collaboration

Collaborative learning involves intentionally designed student groups engaged in "co-laboring" toward meaningful learning outcomes, using active engagement activities planned to maximize learning, and facilitating the sharing of the workload (Barkley, Cross, & Major, 2005). AVID's high engagement learning strategies involve collaborative activities through which individual students help each other learn, thereby strengthen their own learning. Students are responsible for their own learning, while faculty serve as facilitators in a learning community working together for the success of the group.

O: Organization

Because college students face competing priorities that are often overwhelming, organizational skills are critical to success in academic and social situations. According to Cuseo, Fecas, and Thompson (2010), college students "who have difficulty managing their time have difficulty managing college." Management of time and energy and learning to set priorities can make the difference between success and failure for new college students. In addition, students must learn to plan effectively for academic assignments, organizing information and ideas for papers and projects. Consistent with its focus on promoting "individual determination," AVID provides support for the organization of materials, assignments, assessments, handouts, and notes.

R: Reading to Learn

College instructors consider reading a basic skill, one that all students should have acquired before entering college. However, students often neither complete assigned readings nor know how to effectively read assigned material—one of the most common challenges reported by college instructors (Gottschalk & Hjortshoj, 2004). AVID's approach to critical reading provides faculty with common-sense, research-based strategies designed to help students read more effectively. Skills such as reading with purpose can be scaffolded with more complex activities to ensure that students are connecting reading material to prior knowledge, understanding the structure of texts, and using text-processing strategies during and after reading to improve comprehension.

Foreword by Dr. Joseph Cuseo

Why focus on professional learning?

The percentage of high school graduates enrolling in higher education has increased dramatically since 1990 (Engle & Lynch, 2009; Snyder & Dillow, 2011), including graduates from low-income minority groups (Aud, Fox, & KewalRamani, 2010; Engle, Yeado, Brusi, & Cruz, 2012). More than 75% of high school graduates now enter some form of postsecondary education immediately after graduation (Hurley & Coles, 2015). However, these gains in college access are not being matched by commensurate gains in college *success* (Hunt & Carruthers, 2004; Radford, Berkner, Wheeless, & Shepherd, 2010). The United States has one of the highest college-going rates in the world, yet its college completion rates (both 2-year and 4-year) rank near the bottom half of all industrialized nations (OECD, 2016). According to the National Center for Public Policy and Higher Education, "American higher education is underperforming and is being outperformed by many other countries" (Groccia, 2010).

Improving our nation's college success rates requires efforts and interventions on multiple fronts, one of which is improving the effectiveness of college teaching. During the 1980s, a spate of national reports on the condition of American higher education sharply criticized the quality of undergraduate instruction (Association of American Colleges, 1985; Boyer, 1987; Bennett, 1984). A recurrent theme in all these blue-ribbon reports is that the quality of undergraduate education is being compromised by the following four conditions:

(1) failure of graduate education to effectively prepare college and university faculty for undergraduate teaching;

(2) lack of systematic and systemic instructional development of faculty once they begin their professional careers;

(3) lack of open discussion among faculty about teaching and how to improve it; and

(4) overemphasis on faculty coverage of discipline-specific content at the expense of developing cross-disciplinary, lifelong learning skills.

Recent research has strongly suggested that these conditions still exist (Gibbs, 1990; Groccia, 2010; Ramsden, 2003). The wide time span of references cited in this chapter that call attention to these conditions serves to highlight their long-standing relevance and underscores the fact that they need to be aggressively confronted if we hope to address our nation's need for higher college-completion rates and higher levels of academic achievement.

1. Failure of graduate education to effectively prepare college and university faculty for undergraduate teaching

College and university professors rarely receive comprehensive and systematic training in effective teaching prior to beginning their professional careers (Golde & Dore, 2001; Groccia, 2010). The gap between the graduate school instructional preparation of faculty and their professional role as undergraduate teachers was well articulated in a classic report on the status of undergraduate education in the United States issued by the Association of American Colleges (1985):

> The tradition in higher education is to award the [Ph.D.] degree and then turn the students loose to become teachers without training in teaching. During the long years of work toward the doctoral degree, the candidate is rarely, if ever, introduced to any of the ingredients that make up the art, the science, and the special responsibilities of teaching. Yet the major career option for most holders of the Ph.D. degree is full-time teaching in a college or university. (p. 35)

This observation is strikingly congruent with a more concise (and caustic) conclusion reached a decade earlier by one of the first national study groups on American higher education: "It is probably not an exaggeration to say that the present disjunction between the emphasis in graduate training and the work done by most college teachers is a formula for occupational schizophrenia" (The Group for Human Development in Higher Education, 1974, p. 30).

More recent research on instructional development programs offered in graduate schools has indicated that: (a) participation in these programs is optional rather than required; (b) only a minority of graduate students participate; (c) the programs typically consist of a short series of separate workshops that are not integrated into a coherent curriculum; and (d) the programs are delivered with little to no involvement of instructional scholars or senior members of the graduate faculty (Gardiner, 1994; Groccia, 2010).

2. Lack of systematic and systemic instructional development of faculty once they begin their professional careers

Compounding the inadequate graduation preparation of faculty for college teaching is the lack of substantive instructional development that faculty receive, or elect to engage in, after entering the professoriate (Ewell, 1997; Boyer Commission on Educating Undergraduates in the Research University, 1998). In one of the first books devoted to the subject of enhancing student retention and college completion in higher education, Alexander Astin (1982) reached the following conclusion:

> The pedagogical skills of college faculty members may be one of the most underdeveloped resources in the country's institutions of higher learning. Concentrating more energy on developing teaching skills could prove to be the most productive and self-protective activity that institutions can engage in during the next ten years. (p. 15)

Approximately ten years later, Chickering and Gamson (1991) issued a widely distributed and still influential manuscript in which they reviewed the research literature and identified seven key principles of effective undergraduate education. They concluded that "the single most important ingredient for improving education in any institution is an organizational culture that values, nourishes, and provides support for efforts to become more effective professionals" (p. 57).

These classic reports are even more relevant today because of the increasing number of first-generation students entering higher education who are unfamiliar with postsecondary culture and, as a result, are at greater risk for attrition. As Engle and Tinto (2008) pointed out, "institutions must provide professional development for faculty and staff to not only help them acquire a broader range of pedagogical skills, but also learn how to effectively use those skills with at-risk populations" (p. 26). In a study of 10 campuses with higher-than-average graduation rates for at-risk students, one common characteristic shared by all these institutions was an emphasis on strengthening the quality of effective undergraduate teaching (Muraskin, Lee, Wilner, & Swain, 2004).

A large, long-standing body of evidence supports the positive impact of instructional development programs for improving college teaching effectiveness, student engagement, and student retention (Eble & McKeachie, 1985; Gibbs & Coffey, 2004; Polich, 2007; Postareff, Lindblom-Ylänne, & Nevgi, 2008; Rust, 1998; Stes, Gijbels, & Van Petegem, 2008). One study examined 20 campuses identified by the National Survey of Student Engagement as having exceptionally high rates of student engagement and student retention. A key feature that distinguished these high-performing campuses from their peers was that they allocated a significantly higher proportion of institutional resources to support instructional development programs and teaching centers (Ewell, 2008).

3. Lack of open discussion among faculty about teaching and how to improve it

Further compounding the lack of pre- and post-professional instructional development of college faculty is the lack of open discussion among faculty themselves about effective teaching research and practice (Sullivan & Rosin, 2008). At the vast majority of postsecondary institutions, faculty teach in isolation. It is rare for college instructors to be involved in team-teaching, interdisciplinary course planning, or reciprocal class visitations whereby they learn from one another. In one extensive survey of 1,680 faculty at 14 institutions, Gaff (1978) found that 42% of those surveyed said that never during their entire teaching career had anyone talked with them in detail about their teaching. Only 25% said that such discussions took place more than once. One faculty respondent stated wryly that, on his campus, "teaching had replaced sex as a taboo topic" (p. 45).

These results are consistent with an observation made by Derek Bok (1986), former president of Harvard University:

> Professors are among the most independent of all professionals and guard their autonomy closely… Such attitudes help us to understand why it would not be feasible to *prescribe* collective goals or teaching methods. They do not explain why there is so little *discussion* of ways to improve the educational process. (p. 64)

Bok's observation is particularly disturbing when viewed in light of research demonstrating a positive relationship between faculty reflection on, and discussion of, teaching effectiveness and positive student-learning outcomes (Daniels, Pirayoff, & Bessant, 2013; Hubball, Collins, & Pratt, 2005; Winchester & Winchester, 2014).

4. Overemphasis on faculty coverage of discipline-specific content at the expense of developing cross-disciplinary, lifelong learning skills

The college curriculum has been repeatedly criticized for over-reliance on information-heavy courses that attempt to cover extensive amounts of content via the lecture method but give short shrift to the development of transferable learning skills and strategies (Bligh, 2000; Bok, 2006; Cross, 1993). According to a national report issued by the Association of American Colleges and Universities (AAC&U, 2007), millions of students are entering a system of higher education in America that needs to recalibrate its teaching methods to address new global realities. These realities include a workplace demand for college graduates who possess transferable skills, such as inquiry and analysis, critical and creative thinking, written and oral communication,

teamwork, and problem-solving skills. In its report, AAC&U called for educational leaders to "expand substantially the investment in active, hands-on, collaborative, and inquiry-based forms of teaching and learning . . . to ensure that all students have rich opportunities to fully achieve the intended learning outcomes" (p. 11).

This book responds effectively to this call by focusing on writing, inquiry, collaboration, organization, and reading (WICOR), all of which are transferable across the curriculum (and throughout life) and all of which resonate with recommendations made by two other influential postsecondary reports: *The Student Learning Imperative* (ACPA, 1994) and *From Teaching to Learning: A New Paradigm for Undergraduate Education* (Barr & Tagg, 1995). Both of these national reports called for a major "paradigm shift" in undergraduate education—away from the traditional role of faculty as content-driven lecturers—to faculty as designers of learning experiences that promote the development of transferable skills which students can apply across disciplines and throughout life.

Developing students' transferable skills and lifelong learning strategies is also consistent with the call for community colleges to integrate general education competencies into vocational programs (Grubb, 1999). Research has indicated that graduates of such integrated programs have greater job mobility and better long-term employment prospects (College Board, 2008; Headden, 2009).

The four aforementioned conditions' adverse affect on the quality of undergraduate instruction strongly suggests that a "lightning rod" is needed to harness college-wide energy toward creating a campus culture devoted to promoting teaching excellence. This book is designed to do just that. It is not intended to be a prescriptive "cookbook" of instructional recipes or remedies. The strategies provided are offered as transferable practices that may be adapted and applied across different college courses and academic disciplines. That being said, the high engagement practices described in this book will only be effective if they are implemented in a classroom climate where students feel comfortable and confident about becoming engaged. Such a climate is created when students experience positive relationships with both their instructor and their classmates. Bendall, Bollhoefer, and Koilpillai (2015) referred to this as *relational capacity* and defined it as "the established level of trust and safety between teachers and students, as well as directly between students" (p. 5).

Research and practices relating to both the student–instructor and student–student components of relational capacity will be examined in the following sections and in Chapter 1.

Building Relational Capacity is Foundational

Building relational capacity is foundational to establishing an environment conducive to active learning. Instructors have a unique opportunity to interact with students to build frameworks for delivering content related to areas of students' study and instructors' subject-matter expertise. Because students often struggle to understand challenging material, building relational capacity with students and forming relationships that go beyond the classroom are instrumental to increasing students' capacity for authentic learning and their ability to comprehend and retain complex material. Research has indicated that when students engaged with peers in an online environment, it helped students achieve their goals. This interaction was not dependent on the type of the activity (Dixson, 2010; Maki & Maki, 2007). With these observations in mind, it is helpful to examine practices suggested in the following sections, which describe how instructors can build relational capacity and foster a culture of student success in higher education.

Building Positive Student–Instructor Relationships

Research on instructors who are effective in building rapport with students has indicated that it is not just about the teacher's personality; it is more about what actions the instructor takes to create a classroom climate conducive to building relationships and fostering engagement (Wilson & Ryan, 2013). The following classroom practices are offered as action strategies for enhancing the depth and quality of student–instructor relationships.

The descriptions of interactive practices provided in this section are indicative of what may be implemented by instructors not only in face-to-face classes, but also via learning management systems (LMS) (i.e., online) to foster relationships that contribute to student success in higher education (Edelstein & Edwards, 2002; Wang, 2002). With the ever-increasing number of students who are enrolling in online courses, the integration of an LMS will continue to expand, and faculty will be needed to teach these courses, which is indicative that "technology aids in education, and it should be used" (Gautreau, 2011).

Make an intentional and proactive attempt to know students' names.

Learning students' names as quickly as possible is an effective way to create a positive first impression of the course and establish initial rapport with the class. Following a comprehensive review of the research literature on active learning, Bonwell and Eison (1991) concluded: "Perhaps the single most important act faculty can do to improve the climate in the classroom is to learn students' names" (p. 22). When campus visits were made to 10 postsecondary institutions with higher-than-average graduation rates for at-risk students, it was found that students on these campuses repeatedly expressed such sentiments as "nobody gets lost here" and "you can't be anonymous in classes here" (Muraskin, Lee, Wilner, & Swain, 2004, p. 35). Similar findings were reported in a study of Texas community colleges that had higher-than-expected graduation and transfer rates for low-income, first-generation students. Each of the colleges exhibited a strong, student-centered campus culture in which faculty knew students by name (Smith, Miller, & Bermeo, 2009).

In addition, instructors may establish first impressions through online introductions as another way to get to know their students without overextending time and space constraints in face-to-face classes with high enrollment. Researchers have indicated that "when it is not feasible or efficient to have face-to-face meetings, instructors can design online 'get to know you' activities where students post their brief introduction and also respond to others" (Curtis & Lawson, 2001, as cited in So & Brush, 2008, p. 5).

Once students' names have been learned, routinely refer to students by name.

Important as it is to know students' names, it is equally important to show students that their names are known. Referring to students by name is a classroom teaching behavior that has been found to correlate positively with students' participation in class (Auster & MacRone, 1994; Crombie, Pyke, Silverthorn, Jones, & Piccinin, 2003) as well as students' overall evaluation of the course and the instructor (Frisby & Myers, 2008; Murray, 1985). In turn, creating a blended learning environment via an LMS, incorporating tools such as discussion boards, and requiring students to introduce themselves and share information about themselves such as their names or nicknames, is a place to start. Asking students to post responses (in a private forum that is only seen by the instructor) about their expectations of the course or their interests allows the students to realize their value and worth as members of a learning community (Carr-Chellman, Dyer, & Breman, 2000; Gabriel, 2004; Graham, Scarborough, & Goodwin, 1999, as cited in So & Brush, 2008).

Personalize the classroom experience by learning and remembering information about individual students.

You can gather information about students by asking them to complete a student information sheet on which they answer questions relating to their: (1) background experiences, (2) future plans, (3) talents and achievements, (4) interests, (5) values, and (6) course expectations. Knowing who our students are as people provides them with a strong sense of personal validation—they feel recognized as unique human beings and they sense that we care about them as individuals (Rendón, 1994). Personal validation is important to all college students, but it is particularly important to underrepresented college students coming from families without a college-going tradition (Rendón Linares & Muñoz, 2011). These students may experience the "imposter syndrome"—a feeling they don't belong in college or are there under false pretenses (Jehangir, 2010). When faculty take time to know underrepresented students on a personal basis, it makes them feel welcomed and validates their presence on campus.

Personalization can also occur via distance learning. As Phillipo and Krongard (2012) indicated, "an LMS framework can empower educators, parents, and students by means of access to information that can alter and shape a student's personalized learning path" (p. 4). This type of connection is a way for students to be active participants in their own learning.

Moreover, Weaver, Spratt, and Nair (2008) have advocated for offering learners opportunities for interaction to encourage critical thinking and problem solving through "meaningful learning relationships between learners and teachers, and learners and their peers" (p. 38). As such, increasing students' ability to think critically is a skill that will ultimately aid them in college and beyond.

Share information about yourself with students.

One way to share information about yourself with students is by sharing your answers to questions that you ask students to answer on the aforementioned student information sheet. Save this information and use it to make personal connections with students in class as well as to prepare for (and personalize) office visits. This practice allows you to model the type of authentic and appropriate self-disclosure you hope students will display in their answers. McKeachie, Lin, Moffett, and Daugherty (1978) found that when students perceived their instructor more as a learned "person" than as a subject matter "expert," they were more likely to view the instructor as a role model whose thinking and attitudes are to be emulated.

Another way in which you can share information about yourself and build rapport with the class is by using personal anecdotes to illustrate course concepts. Strong empirical support for this practice is provided by a 4-year longitudinal study conducted by Wilson, Gaff, Dienst, Wood, and Bavry (1975) of "outstanding" teachers (as nominated by both students and faculty colleagues) at eight different postsecondary institutions. One classroom behavior that differentiated these outstanding instructors from less highly-rated instructors was that the former were more likely to share examples from their own experience to illustrate and clarify course concepts.

Exchanging information online is another way of communicating the types of information that instructors and students can use to build relational capacity. Surveys of instructors and students who are connected via an LMS have noted that "if LMS use is intended to support constructivist-based models of learning rather than instructivist teaching and consumptive learning models (Lipponen, Hakkarainen, & Paavola, 2004), then using tools to scaffold more interactive forms of instruction and learning may be required for success" (Lonn & Teasley, 2009, p. 693).

Interact with students in a personable and empathic manner.

Specific practices you can use to implement this recommendation include the following:

(1) Greeting students when entering class and when seeing them on campus.

(2) Welcoming students back after a weekend or inter-term break.

(3) Acknowledging emotions that students exhibit nonverbally in class ("You seem excited about this topic." "I sense that you're feeling tired, so let's take a short break.").

(4) Thanking students after they contribute ideas in class.

(5) Wishing students luck on a forthcoming exam.

(6) Acknowledging the return of an absent student ("Glad to have you back; I missed you last class").

(7) Expressing concern to students who are performing poorly or seem to be disengaged ("Everything okay?" "Anything I can do to help?").

The effectiveness of the foregoing practices is supported by an observational study of 25 professors whom students identified as "superb" classroom instructors (Lowman, 1995). These instructors were found to: (a) express interest in students as individuals, (b) be highly sensitive to subtle messages from students about the way they feel, (c) acknowledge students' feelings about matters relating to class assignments or course policies, and (d) encourage students to express their feelings about the course.

Provide personalized feedback to students.

Students are more likely to seek feedback and are more receptive to feedback given to them if it is delivered in a personal, non-threatening manner (Ginsberg & Wlodkowski, 2009). Personalized feedback may be delivered to students by (a) addressing them by name when providing feedback, (b) noting areas of personal improvement in their current work relative to previous performance, and (c) signing your name at the end of your written comments to engage in personal correspondence. Although advances in technology have made communication easier and faster, approaches to digital teaching and learning that focus simply on increased volume of communication miss the mark at being effective when it comes to feedback with a personal touch (Beetham, 2007). Beetham (2007) makes the following observation:

> Hypermedia and adaptive tutorials allow learners to select their own routes through materials. Search engines and portals give a far wider choice of resources, and e-portfolios allow learners to collate evidence of their achievements in a way that is highly personal. For this flexibility to enable learning, however, learners must be supported in all the different choices they make. This is why, despite the capacity of technology to present a wider range of options, the limiting factor remains the availability of skilled practitioners to provide relevant feedback and support. (p. 33)

Building Student–Instructor Relationships Outside the Classroom

When students are comfortable engaging with instructors in class, they are more likely to engage with faculty outside of class. The reverse is also true: When students are comfortable engaging with faculty outside of class, they are more likely to become engaged in class. In a large-scale study of over 1,500 undergraduate and graduate students, Weaver and Qi (2005) found that faculty-student relationships outside of class was the best predictor of students' voluntary engagement in class.

The research base underscoring the benefits of student–faculty contact outside the classroom is formidable. One would be hard-pressed to find any other college-experience variable with as much empirical evidence supporting its positive impact on multiple student outcomes. Perhaps the first and most impressive findings pointing to the power of student-faculty contact outside the classroom were reported in an 8-institution study conducted over a 4-year span that included survey and interview data gathered from 4,815 students and 1,472 faculty (Wilson et al., 1975). This study revealed that faculty who were consistently nominated by students and professional colleagues as "most outstanding," as having the "most impact" on students, and as playing a role in students' choice of major were faculty who interacted most frequently with students outside the classroom. In addition, students who exhibited the most gains in intellectual achievement and the most satisfaction with their college experience were students who reported more interaction with faculty, particularly interaction outside the classroom. The authors of this comprehensive research project reached the following conclusion: "The relationships that faculty and students develop outside the classroom may well be the part of teaching which has the greatest impact on students" (Wilson et al., 1975, p. 107).

A host of other studies have demonstrated that student–faculty interaction outside the classroom is positively associated with undergraduates' (a) academic achievement and cognitive development (Astin & Panos, 1969; Centra & Rock, 1970; Pascarella, 1980; Thompson, 2001; Wilson et al., 1975), (b) personal and social development (Endo & Harpel, 1982; Lacy, 1978; Lau, 2003; Pascarella & Terenzini, 1978; Reason, Terenzini, & Domingo, 2006), (c) perceptions of college quality and institutional commitment (Strauss & Volkwein, 2002; Theophilides & Terenzini, 1981), and (d) educational aspirations (Astin, 1993; Astin & Panos, 1969; Sax, Bryant, & Harper, 2005).

Positive outcomes of faculty–student interaction have been reported for specific student subpopulations. Pascarella and Terenzini (1979) found that frequency of non-classroom interaction between students and faculty had its most positive influence on the persistence of students who had low initial commitment to college and students whose parents had relatively low levels of formal education. Positive correlations between frequency of student–faculty contact and cognitive growth have also been reported for African American students (Gurin & Epps, 1975; Lewis, 1987), commuter students (Lyken-Segosebe, 2015), and transfer students (Volkwein, King, & Terenzini, 1986).

In addition to research supporting its positive impact on cognitive development and academic achievement, informal student–faculty interaction outside the classroom is also strongly associated with student retention (Bean, 1981; Pascarella, 1980; Pascarella & Terenzini, 1979; Terenzini & Pascarella, 1977, 1978), particularly the retention of at-risk students. Tinto conducted in-depth personal interviews with especially high-risk students who beat the odds and succeeded in college and found that "*In every case*, the students cited one or two events, when someone on the faculty or—less commonly—the staff had made personal contact with them outside the classroom. That's what made the difference" (quoted in Levitz, 1990, p. 4).

Interactional Strategies to Cultivate Positive Student–Faculty Relationships Outside the Classroom

Pascarella and Terenzini (1991) reviewed an extensive body of research and found that instructors who develop relationships with students outside the classroom often give signals about their accessibility and approachability by behavior they exhibited inside the classroom. Instructors can send such signals to students by engaging in the classroom behaviors described in this section.

Emphasize your availability outside of class and explicitly encourage students to make office visits.

Research reviewed by Pascarella and Terenzini (2005) suggested that student retention may be enhanced even if students simply *perceive* faculty to be available and interested in them. To promote this perception, instead of merely listing office hours on the course syllabus, call attention to them verbally in class and expressly encourage students to take advantage of them. Empirical support for this recommendation comes from a study in which students were asked to offer suggestions about how their university could encourage more faculty–student interaction outside the classroom. One recurrent theme that emerged across student responses was for faculty to stress the importance of office hours (Alderman, 2008).

Have students sign up in class for personal conferences outside of class.

This practice represents a much more intentional form of outreach to students than simply and informally announcing your availability. Formally scheduling students for office visits makes out-of-class contact a requirement, and if done early in the term, it serves as an icebreaker to build positive instructor–student relationships while increasing the likelihood that they will come back for more conferences. (In addition, it is an effective way to learn students' names.) At minimum, requiring an early office visit ensures that each student in class discovers *where* your office is located and guarantees that all students—not only the most assertive ones—have at least one out-of-class meeting with you during the term.

Time constraints and workload schedules for both students and instructors may not necessarily lend themselves to meeting outside of class face-to-face. However, leveraging a learning management system creates a "bridge between the instructors and learners… The cognitive benefits [sic] of using an LMS system is that it enables students and instructors to meet in virtual classrooms" (Cavus, 2007, p. 302). It is within the context of an online classroom that instructors are able to integrate technology to support building relational capacity with students.

It is important to note that today's students have leveraged technology, and its benefits enable them to improve their educational experiences, particularly outside of class. Ravenscroft and Cook (2007) noted the following:

"[R]emote access to resources has been successful with figures showing usage to be much higher outside college hours. Now that this approach is integrated it has become vital to learning outcomes, and has a positive effect on motivation. Both staff and students have seen the tangible benefits of using learning technologies to enhance the learning process." (p. 210)

Write a personal note to students who may be struggling in class, inviting or requiring them to see you outside of class.

The need for faculty to initiate outreach to low-achieving students is underscored by research indicating that students who are in most need of learning assistance are typically the students least likely to seek it out on their own (Cuseo, 2003; Knapp & Karabenick, 1988). An LMS may serve as a way for instructors to observe students' progress and respond or intervene accordingly. Virtual office hours provide both the instructor and student the forum to discuss content and concerns (Cavus, 2007). In light of ensuring that students stay connected, a personal invitation from an instructor to join an online meeting, discussion forum, or video conference would be ideal.

Be available to interact with students immediately before and after class.

Empirical support for this recommendation is provided by a case study involving classroom observations of five faculty members who had histories of high student-retention rates in their courses. One common characteristic shared by all these instructors was that "they talked to students before, during, and after class" (Coad, 1995, p. 8). Minich (1996) also supported this type of interaction by adding that educators, especially those who teach online, need to engage early and often with students to maintain and develop relational capacity.

Communicate personally with students via email or social media.

Many of today's college students prefer communicating with faculty through electronic media (Li, Finley, Pitts, & Guo, 2011). This form of communication may also be more appealing to students who lack the confidence or assertiveness to walk into a faculty member's office for a face-to-face conversation. If students have positive initial interactions with instructors online, they may be more likely to eventually interact with them in person. As for communication in an online environment, it is critical that instructors put together a framework for engaging the distance learner with the goal of increasing persistence (Waits & Lewis, 2003).

Participate in co-curricular experiences with students (e.g., cultural and recreational events on or off campus).

Participating in co-curricular experiences with students enables them to see you in a social context other than the classroom. This, in turn, may make them feel more comfortable about seeking contact with faculty during office hours and other out-of-class contexts. Another benefit of participating in co-curricular programs, and announcing your intention to do so, is that it encourages student participation in campus life—which is strongly associated with student retention (Kuh, 1995; Kuh, Douglas, Lund, & Ramin-Gyurnek, 1994; Pascarella & Terenzini, 2005). Moreover, Tinto (1975) has noted that student engagement and integration into college/university culture are key elements to student persistence.

In addition to the foregoing practices, you can connect with students outside the classroom by:

(1) Meeting with prospective students during campus visits
(2) Participating in new-student orientation
(3) Engaging in faculty advising and mentoring programs
(4) Serving as a sponsor to student clubs and organizations
(5) Engaging with students in experiential learning activities (field trips, practicums, service learning, or study-travel experiences)
(6) Contributing to residential life programs (serving as a guest speaker or conducting test-review sessions for students living on campus)
(7) Working with students on relevant campus committees (for example, student retention or student engagement committee)
(8) Participating with students in study-abroad or study-travel programs
(9) Participating with students on faculty–student research teams (for example, as part of an undergraduate research program)
(10) Participating with students on faculty–student teaching teams (for example, partnering with an upper-division student to teach a first-year seminar).

Conclusion

Research and scholarship reviewed in this foreword strongly support the conclusion that college faculty need and benefit from instructional development. The high engagement strategies detailed in this book provide instructional practices for an effective development system that can remedy the lack of pedagogical preparation college professors typically receive in graduate school, the lack of systematic, sustained instructional development they receive during their professional careers, and their over-reliance on the lecture method to cover discipline-specific content at the expense of learner-centered methods that develop students' lifelong learning skills.

CHAPTER ONE

Relational Capacity: The Importance of Building Positive Student–Instructor and Student–Student Relationships

Visit the *AVID for Higher Education: High Engagement Practices for Teaching and Learning* webpage
on MyAVID for additional materials and resources.

CHAPTER **Introduction**

Why focus on relational capacity?

Implementation of practices such as the ones listed in the foreword provide the research and rationale for understanding the *why* of creating environments that are conducive to learning, especially when considering that instructors who teach at colleges and universities typically do not have backgrounds in teaching. The explanations, framework, and experiences included in Chapter 1 will help establish meaningful opportunities for building relational capacity.

Decades of research point to engagement as being essential to both student learning and student retention (Astin, 1984; Chickering & Gamson, 1987; Kuh, Kinzie, Schuh, Whitt, & Associates, 2005; National Institute of Education, 1984; Pace, 1980). However, whether students become engaged depends not only on the deployment of high engagement pedagogical techniques; it also depends on creating a social climate in the classroom that fosters engagement. This social climate has also been referred to as "relational capacity." According to Bendall, Bollhoefer, and Koilpillai (2015), relational capacity is the amount of trust and level of safety among group members (p. 5). And, in fact, creating a positive social classroom climate may be a precursor to the deployment of high engagement techniques; that is, students must first feel comfortable with their instructor and with their classmates before they will risk becoming engaged. A warm classroom climate supplies the fertile soil needed to nurture and cultivate student engagement. As Erickson and Strommer (1991) pointed out, students come to the first sessions of a class with a "hidden agenda," which includes determining "what the professor is like, who the other students are, how instructors and students will behave, and what climate will prevail" (p. 87).

What learning processes and outcomes does building relational capacity promote?

In an extensive, 7-year study of more than 2,300 seniors at nine different colleges and universities, these soon-to-be graduates were asked about the factors that contributed most to their college success. The top two factors they cited were: (a) personal contacts with other students, and (b) personal contacts with faculty and staff (Willingham, 1985). Similar findings were reported in a 25-year longitudinal study that included a national sample of approximately 500,000 students and 1,300 institutions of all types (Astin, 1993). This comprehensive study revealed that frequency of student–faculty and student–student interaction correlated significantly with every academic achievement outcome examined, including college GPA, degree attainment,

graduating with honors, and enrollment in graduate or professional school. More recently, Pascarella and Terenzini (2005) reviewed a voluminous amount of research spanning four decades and reported that critical thinking and intellectual development "thrive in college environments that emphasize close relationships and frequent interaction between faculty and students" (p. 600).

How does incorporating AVID build relational capacity and support student engagement?

AVID emphasizes building relational capacity as a cornerstone of student success. Cuseo (2016) noted that human interaction, collaboration, and interpersonal relationships increase students' potential to complete their first year of college and earn a degree. Building relational capacity through intentional team building engenders trust and safety in a group. Four stages of team building gradually create an environment where group members appreciate individual differences, open communication, and mutual respect and trust. In the stages of team building, students are exposed to different instructional practices and strategies that scaffold their experiences through varying levels of personal risk and comfort in communication. The stages are characterized as follows:

- **Stage 1:** This stage involves low-risk/high-comfort activities. Instructors use this stage of team building when they encourage students to interact superficially with a wide variety of peers, which helps build a safe community.
- **Stage 2:** This stage involves moderate-risk/moderate-comfort activities. Instructors use this stage of team building as they move from superficial, random interactions to pair-share activities. In Stage 2, more personal interactions allow safety to be built at a deeper level as trust begins to grow.
- **Stage 3:** This stage involves high-risk/low-comfort activities. This stage moves from pair-sharing to small group sharing of a more personal nature. This is a higher-risk stage as students usually engage in activities that involve lengthier personal sharing.
- **Stage 4:** This stage involves very high-risk/low-to-no-comfort activities. Stage 4 encompasses the highest risk and lowest comfort as students engage in personal sharing with the larger group.

The following instructional practices focus on the four stages of team building to realize the power of positive instructor–student and student–student relationships. They involve different intergroup interaction strategies devoted to building relational capacity, and they share the following objectives and advantages in common: (a) they generate synergy by harnessing and pooling the ideas generated by separate learning groups; (b) they empower students to interact with classmates outside of their small learning group; and (c) they enable the instructor to transform a class that has been deconstructed into separate, isolated subgroups and reconstruct it into an interactive, interdependent learning community (Cuseo, 2002).

Educator Outcomes

After reading this chapter, educators will be able to:

- Create an environment that supports a culture of safety, honesty, and mutual trust and respect.
- Structure authentic opportunities for educators and students to engage in instructional practices that build relational capacity through scaffolding the stages of team building.

Pre-Reading Reflection Questions

- What strategies do I already employ to build relational capacity and support students' learning and engagement?
- How can I scaffold team-building instructional practices to build relational capacity and encourage students to take academic risks in a safe environment?

BUILDING THE FOUNDATION: **The Instructor–Student Relationship**

Research has demonstrated that positive student relationships with faculty are associated with positive teaching and learning outcomes, including higher student ratings of course instruction (Benson, Cohen, & Buskist, 2005; Buskist & Groccia, 2011) and students ascribing higher value to the subject matter of the course (Frisby & Myers, 2008). Rapport is also one of the most frequently cited characteristics of college instructors whom students describe as "effective" (Catt, Miller, & Schallenkamp, 2007; Faranda & Clarke, 2004) and as their "ideal" or "best" teacher (Feldman, 1976, 1988). In a study of 2-year and 4-year college faculty who received recognition and awards for effective teaching, it was found that these instructors did not believe learning content was all that mattered in the classroom. Although these award-winning instructors valued intellectual development, they took a holistic approach to the teaching and learning process (Rendón, 2006). Such findings strongly suggest that effective college teaching is a student-centered enterprise that goes beyond academic skill building to relationship building and a focus on the student as a whole person. As one instructional development specialist put it: "What makes a course more than the sum of the content on which it is based is the social experience: the sets of relationships between teacher and students and students with one another" (Eisenberg, 1987, p. 18).

A positive instructor–student relationship may be viewed as a precondition or prerequisite for meaningful student–instructor interaction and student engagement in the learning process. When students are comfortable interacting with their instructor, they become more responsive to their instructor's attempts to interact with them and engage them in learning the course content. Angelo (1993) succinctly captured how developing rapport with students is a necessary precondition for student–faculty interaction: "Most students have to believe teachers know and care about them before they can benefit from interactions—or even interact" (p. 13). Studies have demonstrated that when instructors build rapport with their class, students are more likely to be attentive and participative in class (Benson, Cohen, & Buskist, 2005; Fassinger, 2000; Goodboy & Myers, 2008; Weimer, 2017) and are more likely to interact with faculty outside of class (Dobransky & Frymier, 2004).

INSTRUCTIONAL PRACTICE: **Social Contract**

Building relational capacity should be intentional and focused. Establishing group norms at the outset can help build an environment of safety and trust between the instructor and students as well as among the students themselves. Ultimately, the goal is a safe environment that empowers students to take academic risks. Building a social contract is one way to develop a sense of relational capacity and rapport in a classroom. This instructional practice requires collaboration between the faculty and students as well as among the students as the expectations for their collective conduct and behavior are developed.

Instructional Objective

- Students will develop relational capacity through collaboration as they work together to build a social contract.

Guiding Question

- How can I build relational capacity and student buy-in while I encourage students to work together to set classroom norms and expectations?

Process

Time to implement: *Varies depending on instructor objectives and learner outcomes: 17–20 minutes*

- Invite students to individually create a list of expectations and norms for the class.
    - As they create their list, ask students to contemplate: *What creates a positive learning environment?*
- Place students into groups of three or four.
- Instruct students to share their lists with their group while one group member takes notes.
- Ask groups to agree upon their top three most important expectations and norms.
- Direct groups to share their top three most important expectations and norms with the large group.
- Record students' thoughts on chart paper or in a shared digital space.
- Ask if all students can agree to the expectations.
    - If students do not agree, they can talk privately with you at the end of class.
    - If students agree, instruct them to sign the chart paper as evidence that they agree to the social contract and will abide by its expectations and norms.

TEAM BUILDING:
Stage 1 – Low Risk and High Comfort

Stage 1 team building is the least risky, most comfortable step of team building. It involves low-risk/high-comfort activities that engage students in building rapport through relatively superficial interactions with a wide variety of peers. Fostering relatively impersonal student-to-student relationships lays the foundation for establishing a safe community (Risi, Schiro, & Serret-Lopez, 2005).

Research has repeatedly demonstrated that retention and learning are enhanced when students interact, collaborate, and form relationships with other students (Astin, 1993; Bruffee, 1993; Feldman & Newcomb, 1969; Johnson, Johnson, & Smith, 1998; Ryan & Deci, 2000; Tinto, 1993, 2012; Vygotsky, 1986). Insight into the college student experience may be gleaned by viewing it through the lens of psychologist Abraham Maslow's hierarchy of human needs. Maslow posited that humans can only reach their full potential and achieve peak performance if their basic emotional and social needs have been met, including self-esteem and a sense of belonging. Having these needs met is particularly important for underrepresented students who may face social stereotypes and experience personal doubts about whether they "belong" in the college community (Walton & Cohen, 2011).

Tinto (2012) identified four reasons why intentionally promoting students' social integration and sense of community membership fosters success: (a) it provides social support that eases new students' transition to college and reduces academic stress; (b) it enhances students' self-esteem, which, in turn, strengthens academic performance; (c) it enables students to more readily access informal college knowledge from their peers that helps them navigate the postsecondary environment; and (d) it strengthens students' attachment and commitment to the college, which motivates them to remain enrolled.

As noted, in addition to enhancing student retention, peers can exert a powerful impact on students' learning and academic performance. Decades of research has shown that college students learn as much from peers as they do from instructors and textbooks (Pascarella & Terenzini, 2005). One study of more than 25,000 college students revealed that students who reported interacting with one another while learning achieved higher levels of academic performance and were more likely to persist to degree completion (Astin, 1993). When humans join together to engage in a common learning experience, they enact the epistemological theory of *social constructivism*—which posits that social interaction and interpersonal dialogue shape the nature of our thinking—to such a degree that our thinking becomes an internal representation of external dialogues we have with others (Vygotsky, 1978). When such dialogue takes place among peers, it has a particularly powerful effect on learning outcomes because peers (a) are at "proximal" (nearby) stages of cognitive development (Vygotsky, 1978) and (b) have similar levels of experience with respect to the content being discussed (Whitman, 1988).

Thus, when college instructors create opportunities for student–student interaction, they capitalize on the power of peer relationships to enhance student retention and the power of socially constructed knowledge to strengthen students' learning. As Palmer and Zajonc (2010) reminded us: "If it is true to the human being, education must reflect our nature… [including] our capacity for *relational*, contemplative, and bodily knowing" (p. 152, italics added).

The following Stage 1 team-building instructional practices foster the important student-to-student relationship.

Creating opportunities for peer interaction inside the classroom may be especially critical to the success of commuter and re-entry students who often have little time or opportunity for peer interaction and social integration outside the classroom. The term "PCP" (Parking lot–Classroom–Parking lot) has been coined to characterize the typical commuter student's lack of campus involvement outside the classroom (Gardner, 1993). College faculty can intentionally offset this lack of campus involvement among commuters by employing instructional practices that foster peer interaction and social integration in class. Such "intra-curricular" peer interaction and relationship building may serve as an antidote to commuter students' (and part-time students') lack of extracurricular social integration.

INSTRUCTIONAL PRACTICES: Stage 1 Team Building

Stage 1 instructional practices can include icebreaker activities that acquaint students with each other, fostering an early sense of class community.

Instructional Objective

- Students will engage in relatively quick, low-stakes peer interactions to initiate a sense of community.

Guiding Question

- How can I leverage low-stakes team-building practices to create a feeling of safety in the class and begin to build a sense of community?

Resource

- *Student Resource: Mingle BINGO Game Card*

Process

Time to implement: *Varies depending on instructor objectives and learner outcomes; 10–12 minutes*

Mingle BINGO

- Create a class BINGO board (use the *Student Resource: Mingle BINGO* as the board or as a reference).
- Distribute a copy of the BINGO board to each student.
- To begin the activity, encourage students to move around the room and find a person who matches a description in one box.
- When they find a match, instruct that student to write their peer's name in the box. Students may only fill one box per person.
- Students move about the room filling in the boxes until a person completes five boxes in a row (across, down, diagonal, etc.) or until time is called.
- After a student obtains BINGO, the activity may continue for as long as time allows.
- Debrief by engaging students in a quickwrite using the following prompt: *During this activity, did you feel safe sharing with other students? Why or why not?*

Mingle BINGO is also known by other titles such as "Mix and Mingle" or "Classroom Scavenger Hunt."

As a variation to Mingle BINGO, students can mix and mingle to music. When the music starts, students mingle, trying to meet as many peers as they can to fill in the boxes on their BINGO card (one box per peer). When the music stops, students share facts about their classmates with the larger group.

Mystery Participant

- Distribute 3" x 5" index cards to students.
- Instruct students to write their name on the back of the card.

- On the front of the card, instruct students to answer the following questions, which can be tailored to the students and/or the course content. First ensure that students do not mind sharing this information with the class. Inform students that the answers will be shared with the class. Accordingly, ensure that students write answers they do not mind sharing.
    - *Were you born between January and June or July and December?*
    - *Would you rather play in the snow or lay on the beach?*
    - *What is one unique thing or interesting fact about you that we might not know?*
    - *What are you proud of?*
- Collect the cards.
- Invite all students to stand.
- Randomly select a card and read the answers to the questions one at a time, pausing after each answer. Instruct students to sit down if the answer does not pertain to them (e.g., if the instructor reads "I was born between January and June" and a student was born in August, that student would sit down).
- Once the last student is standing, have them say their name and talk about the interesting fact and what they are proud of.
- Start by reading a few cards (e.g., 4–6) and spread out interaction with the remaining cards over the course of the next week or two.
- Debrief by inviting students to perform a quickwrite using the following prompt: *How did this activity help you make connections with your classmates? What similarities do you share with your peers?*

Mingle BINGO Game Card

Name: _____ **Date:** _____

Get to know your classmates! For each category, find someone in the class and write their full name (first and last) in the box. Make sure that you spell their name correctly.

Favorite subject is science	Has traveled to a different county	Likes chocolate	Speaks another language	Posted to social media within the last 24 hours
Is the oldest child in the family	Is the first in their family to attend college	Plays a sport	Plays an instrument or sings	Is named after a relative
Likes to go to the movies	Read at least two books this year	Has a dog	Likes to cook	Favorite food is pizza
Wants to attend graduate school	Knows how to roller skate	Has brown eyes	Is good at math	Has lived in a different state
Has won an award	Has two or more siblings	Has an Instagram account	Exercises three or more times each week	Likes to watch football or fútbol games

TEAM BUILDING:
Stage 2 – Moderate Risk and Moderate Comfort

Stage 2 team building is a "riskier" stage; however, it still provides relative comfort as students seek to take academic risks in the safety of a one-on-one relationship with a fellow peer. At an early point in the course, educators can emphasize the value of peer learning and remind students of the many ways they can form learning teams.

The following Stage 2 team-building instructional practices strengthen the important student-to-student relationship.

INSTRUCTIONAL PRACTICES: Stage 2 Team Building

Stage 2 instructional practices build upon the community established in Stage 1, as students pair together and begin to form safe, more personal relationships. Community is being built on a multifaceted level, which will allow students to rely on one another as they take risks and develop their understanding of content as well as skills needed to achieve academic success as a team.

Instructional Objective

- Students will engage in one-on-one peer interactions to deepen the sense of relationship in order to foster a safe learning environment.

Guiding Question

- How can I utilize pair interactions to build a learning environment in which students feel safe taking academic risks?

Process

Time to implement: *Varies depending on instructor objectives and learner outcomes; 8–10 minutes*

Pair–Share

The following practices can provide authentic opportunities for students to interact in pairs.

- **Note-Checking Pairs:** Students take a couple of minutes during a scheduled break in the lesson or immediately after class ends to team-up with another classmate and compare notes.
- **Reading Pairs:** Students pair with another classmate after completing reading assignments to compare their highlighting and margin notes.
- **Writing Pairs:** Students read each other's writing and provide reciprocal feedback for revision and improvement. Educators can encourage students to form peer-writing teams at any or all of the following stages in the writing process:
    - Topic selection and refinement, to help one another come up with a list of possible topics and subtopics to write about.
    - Pre-writing, to clarify their writing purpose and audience.
    - First draft, to improve their general writing style and tone.
    - Final draft, to proofread, detect, and correct typographical errors before submitting their written work to the instructor.
- **Library Research Pairs:** Students form information-search pairs to perform their library research collaboratively, transforming it from a solitary experience to a collaborative interpersonal experience.
- **Test Review Pairs:** Students join together to review their individual test results by comparing their own answers with those of their peers, enabling them to gain greater insight into what they did well, why they lost points, and what they can do to improve.

An instructor can facilitate the formation of these types of learning teams by circulating a sign-up sheet early in the term. Interested students can sign the list and the instructor can then create a class directory that includes the email addresses of students interested in working with other students outside of class time. Ensure that students know their information will be shared with their classmates.

See Chapter 2 for more information on focused note-taking.

Test review is an extremely personal activity for some students. If it is too personal, students can review their tests with the instructor rather than a peer.

To prepare students for group work, provide them with explicit instruction on how to communicate and collaborate effectively. Merely placing students in groups and telling them to collaborate may not be enough to ensure that true teamwork will take place. Research and practice in the field of cooperative learning has strongly supported the value of providing student learning teams with direct instruction on inter-personal communication and human relations skills prior to group work (Cuseo, 2002). Such instruction may include discussion of specific strategies for: (a) supporting team members, (b) listening actively, (c) disagreeing constructively, (d) resolving conflict, and (e) building consensus. Instruction for these skills may be provided by the course instructor or by other members of the campus community who have professional expertise in this area (e.g., communications faculty and counseling professionals).

TEAM BUILDING: Stage 3 – High Risk and Low Comfort

Stage 3 team building involves high-risk/low-comfort activities, as it moves from one-on-one sharing to small-group sharing of a more personal nature and engaging in activities that involve lengthier personal sharing (Risi, Schiro, & Serret-Lopez, 2005).

The human brain may be biologically wired for interpersonal interaction and collaboration because these experiences have played a key evolutionary role in the survival of the human species (Jensen, 1998). Thus, group work may be viewed as a natural, "brain compatible" form of learning. In fact, brain imaging studies reveal that more activity occurs in thinking parts of the brain when people learn through social interaction than when they learn alone (Carter, 1998). Compared with traditional methods of instruction, such as the lecture method, small-group and cooperative learning strategies have been shown to have a significant positive effect on subject-matter learning (Pascarella & Terenzini, 2005), including the subject matter of STEM (science, technology, engineering, and mathematics) disciplines (Springer, 2003).

The importance of intentionally augmenting lectures and whole-class discussions with small-group learning activities is supported by research that indicated that over the course of the term, when professors posed questions to the entire class, only about 25% of students responded (Weaver & Qi, 2005). The rate of student participation dropped even further as class size increased (Kenney & Banerjee, 2011). In another study by Karp and Yoels (1976), it was found that less than 10% of students in college classes accounted for more than 75% of participation in all class discussions. Students themselves were acutely aware of this discrepancy because when they were surveyed, 94% of them agreed with the statement: "In most of my classes, there are a small number of students who do most of the talking" (Karp & Yoels, 1976).

Small-group work can provide an antidote to these uneven levels of classroom participation by enabling all students—not just the most assertive or most verbal—to engage simultaneously with the course content and with each other. When instructors empower students to learn in small groups, a truly student-centered learning environment is created because the sage (the instructor) steps off the stage and the learning process centers on the students. Small-group learning may also be viewed as a more culturally inclusive teaching strategy because more students are included in the learning process and are given a voice in the classroom (Thompson & Cuseo, 2012).

The following Stage 3 team-building instructional practices deepen the critical student-to-student relationship as students intentionally engage in small-group sharing.

INSTRUCTIONAL PRACTICES: Stage 3 Team Building

Stage 3 instructional practices engage students and promote group cohesiveness. The objective of these team-building practices is to create a social climate in which team members identify with each other and become comfortable expressing their personal viewpoints openly.

Instructional Objective

- Students will engage in small-group interactions to deepen the sense of relationship in order to feel comfortable taking academic risks.

Guiding Question

- How can I utilize small-group interactions to build a learning environment in which students feel comfortable?

Process

Time to implement: *Varies depending on instructor objectives and learner outcomes; 10–12 minutes*

Team Huddle

- Prepare topics or prompts for discussion, related to the course content.
- Play music and instruct students to move about the room while the music is playing.
- When the music stops, call "Huddle" and say a number. Instruct students to "huddle" into groups containing the number of students indicated (e.g., "Huddle four!" indicates that students should form groups of four).
- When students are huddled, invite students to discuss the topic or prompt.
- After several minutes of sharing, the instructor starts the music again and students move about the room continuing to "huddle" and discuss as directed.

Team Name

- Instruct students to form groups of four.
- Instruct groups to develop a team name that is representative of all the group members (e.g., Keepers of the Clock – all team members are sensitive about being punctual).
- After groups have decided on a team name, encourage them to create a name tent with their team name.
- Take turns sharing team names and explanations with the large group.

Name tents can be created by folding a piece of cardstock in half lengthwise. Instruct teams to write their team name in the center of the name tent (on both sides). Encourage them to be creative in their work.

Typically, small groups are formed in the college classroom either by student self-selection or by random formation. For example, students who happen to be sitting near each other are asked to join together, or students count off numbers and join other students who have the same number. These ad hoc group-formation strategies may be convenient and efficient ways to form short-term discussion groups or "buzz groups" in which students exchange ideas on issues that are neither personally sensitive nor conceptually complex.

For more in-depth academic discussions, intentional grouping may be necessary. The criteria used to place students may depend on the learning objectives, class needs, or instructor goals.

When a diverse group of students engages in focused dialogue, it allows them to compare and contrast their different perspectives. This stimulates critical thinking by creating cognitive dissonance or mental disequilibrium, causing students to change, rework, or reconstruct their thinking processes to accommodate divergent viewpoints (Cuseo & Thompson, 2015).

Team Office Visits

- Schedule small groups of 3–4 students to make office visits at the same time. Scheduling office visits in small groups is a more efficient way for educators to get to know students and creates an opportunity for students to connect with their classmates outside of class time. If students first visit instructors' offices within the supportive context of a small group of peers, they are likely to become more comfortable making future visits on their own.

Learning Teams

- Form learning teams by intentionally grouping students in ways that maximize the power of group learning.
- Carefully select the students who comprise the learning teams to maximize their effectiveness. The following group formations are options to maximize learning and relationship building:
    - **Homogeneous Group Formation:** Students are placed in learning teams with peers who share similar interests or characteristics. For instance, homogeneous groups may be formed among students who share the same major or career interests to promote mutual goal setting and social support.
    - **Heterogeneous Group Formation:** Students are placed in learning teams with peers who differ with respect to certain characteristics. For instance, teams may be deliberately formed to maximize heterogeneity and diversity of perspectives by grouping students of different (a) gender, (b) race or ethnicity, (c) chronological age (e.g., traditional-age and re-entry students), (d) levels of prior academic achievement (e.g., based on performance in high school or on early course exams), (e) levels of familiarity or experience with the skill being learned (e.g., technology), (f) vocational interests (e.g., based on the results of career-interest inventories taken in class), or (g) personality traits (e.g., as measured by the Myers-Briggs Type Indicator).

Pairing Small Groups

- Although learning in small groups is often valuable in itself, its power can be occasionally magnified by transforming the work of small, separated groups into a larger, federated class community. Instructors can facilitate inter-group interaction between separate small groups to create a sense of class solidarity and community by pairing small groups together.
- When small groups interact with each other following completion of their group work, it allows them to synthesize their work and see the class as a unified "group of groups." To make this transformation after small-group work is completed, the following practices may be used.
    - **Plenary Reporter:** One student from each learning group is the "plenary reporter" who shares the group's main ideas with the entire class.

- **Roving Reporter:**
    - One student from each team visits other groups to share their team's ideas.
    - Remaining members of the team stay together and play the role of "listener-synthesizers"—members actively listen to ideas presented by roving reporters from other groups and integrate these ideas with those of their own team.
- **Carousel Share:**
    - Two team members leave their home team and rotate to an adjacent team to share their work group while the remaining members of the home team stay seated to share their home team's work with a pair of rotating members from another team.
    - After the rotating teammates share their work with an adjacent team, they move two teams ahead and share their work with that team.
    - The rotating process continues until the rotating teammates return to their home team, at which time they share the ideas they gathered from the other teams they visited and integrate them with the ideas originally generated by their home team.

TEAM BUILDING: **Stage 4 – Very High Risk and Low to No Comfort**

Stage 4 team building involves very high-risk and low-to-no-comfort activities. Students engage in personal sharing with the larger group during this stage, which most often occurs after students have built community through instructional practices focusing on the other three stages. Therefore, while students may feel little or no comfort engaging at this level, trust has been built to provide a sense of safety in the learning environment (Risi, Schiro, & Serret-Lopez, 2005).

As noted, trust is critical in a learning environment. Learning involves changing or modifying an existing frame of reference or information. This can be daunting to learners as they seek to acquire information in a setting that may require public disclosure of erroneous or inaccurate thoughts. Students who perceive that they are being judged may acquire the mindset and behavior that attempts to hide mistakes, rather than correct and learn from them (Hong, Chiu, Dweck, Lin, & Wan, 1999, as cited in Clapper, 2010; Mueller & Dweck, 1998; Nussbaum & Dweck, 2007). In unsafe learning environments, the learner is focused more on "survival and protection of self from embarrassing or humiliating situations than on learning" (Clapper citing Jensen, 2008, MacLean, 1990). Building a safe learning environment is critical as learners benefit when they are allowed and encouraged to make errors. In fact, many learners actually seek out a learning environment that is "safe and positive" (Clapper, 2010). Creating a safe, trusting learning environment with opportunities where students are able to take risks, make and learn from mistakes, explore new ideas, and construct new frames of information has a tremendous impact on learning (Clapper, 2010).

The instructional practices of Philosophical Chairs (page 79) and Socratic Seminar (page 86) exemplify Stage 4 team building that fosters a safe, trusting learning environment.

Post-Reading Reflection Questions

- How will I create a culture of safety, honesty, respect, and mutual trust that supports building relational capacity and engages student learning?
- What are the next steps that will guide my work as I scaffold team-building experiences and strive to create a positive learning environment that fosters relational capacity?

Conclusion

The research reviewed in this chapter indicates that student engagement and student success in college rest on a foundation of high quality instructor–student and student–student relationships. Simply stated, students are more likely to persist to college completion and make deep conceptual connections with the content of their college courses when they make positive interpersonal connections with their course instructors and their classmates. Developing relational capacity through the stages of team building is an important factor in supporting students' college persistence and academic success.

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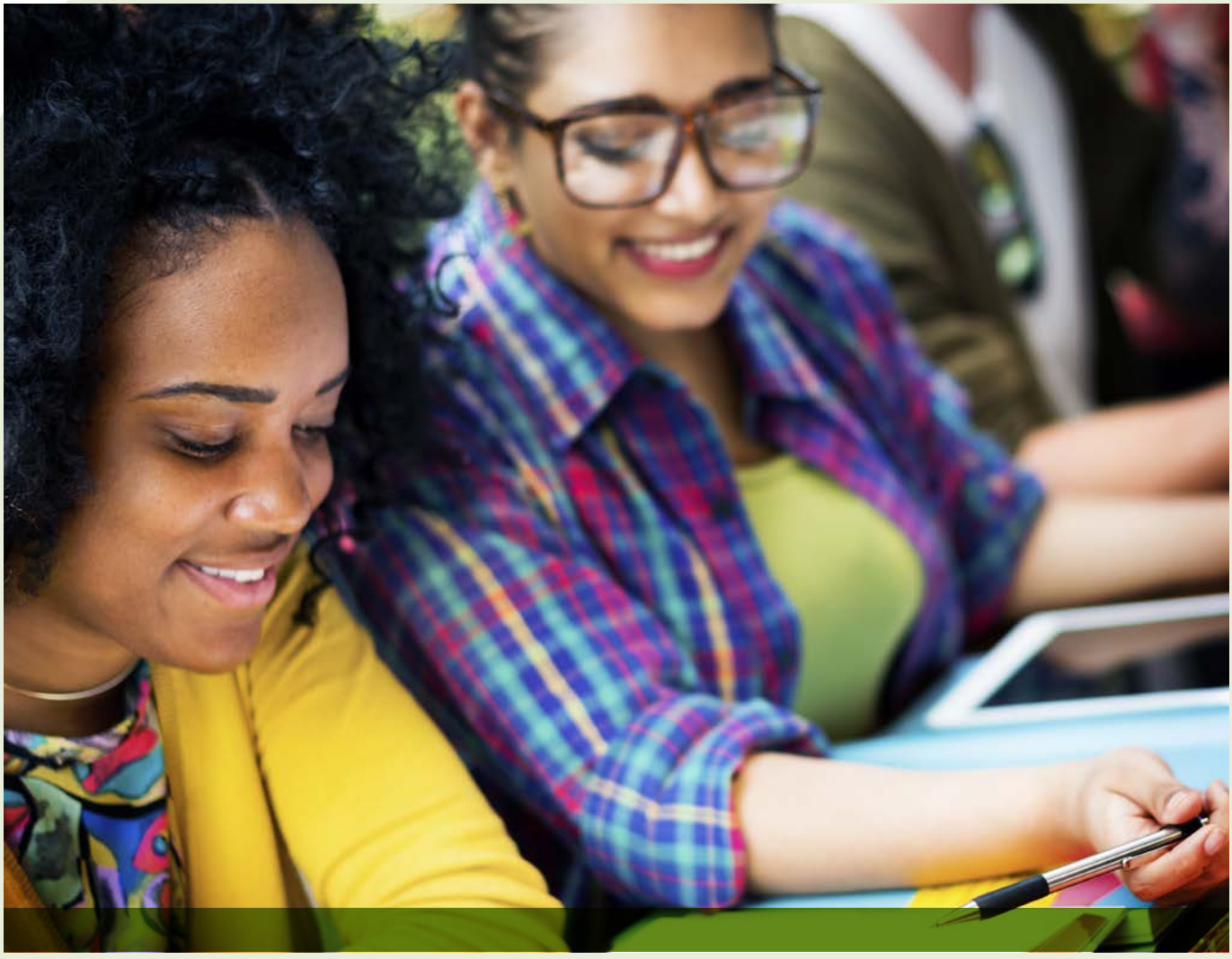

CHAPTER TWO

Writing to Learn

Visit the *AVID for Higher Education: High Engagement Practices for Teaching and Learning* webpage
on MyAVID for additional materials and resources.

CHAPTER **Introduction**

Writing to learn is different from "process writing"—writing to communicate or to accomplish something (e.g., inform, instruct, or persuade). Fulwiler and Young (1982) explained that writing to learn is used to "order and represent experience to our own understanding" (p. x). The purpose of writing to learn is not to communicate; rather, it is to understand and deepen learning. Fulwiler and Young indicated that writing to learn "provides us with a unique way of knowing and becomes a tool for discovering, for shaping meaning, and for reaching understanding" (p. x).

Why focus on writing to learn?

Bazerman et al. (2005) captured the importance of writing to learn when they quoted E.M. Forster: "How can I know what I think until I see what I say?" They added that "writing to learn is based on the idea that "students' thought and understanding can grow and clarify through the process of writing" (Bazerman et al., 2005, p. 57). It is one of the most effective ways to develop critical thinking and learning (Forsman, 1985, p. 162).

Writing to learn is an informal form of writing that prompts discovery and reflection, and it is a means to enhance thinking and exploration in order to guide students as they learn. It can help students deepen learning of content, develop critical thinking skills, enhance habits of mind, self-assess understanding, brainstorm alternatives, and dive into latent insights.

Writing to learn also provides an opportunity for educators to scaffold student learning. According to Vygotsky (1978), learning occurs in distinct phases. Wood, Bruner, and Ross (1976) built on his research by introducing the process of scaffolding as it relates to how learners process information. Their constructivist approach provides the framework for how the following strategies will be introduced and explained. When reading through this chapter on writing to learn, it is important to note that strategies will be intentionally described in an order that allows for increasing student responsibility.

The following chart provides a framework for understanding the potential scaffolding of writing-to-learn strategies and a method of implementation that introduces, develops, then deepens learning. However, it is not the intent of the chapter to prescribe the phases or the process through which writing to learn is to be used; rather, it is a tool to guide educators as they seek to develop and deepen students' learning of content. Depending on the educator's objectives and desired learner outcomes, instructional practices can be differentiated for varying levels and expressions of learning.

Introducing	Developing	Deepening
Quickwrites (p. 33)	KWLA (p. 74)	KWLA (p. 74)
Minute papers (p. 36)	Dialectical response (p. 42)	Dialectical response (p. 42)
Journals (p. 37)	Interactive Notebooks (p. 52)	Focused note-taking (p. 46)
Learning logs (p. 37)	Learning logs (p. 37)	One-Pager (p. 45)

What learning processes does writing to learn support?

Educators can use writing to learn as a "safe" opportunity to express learning. Students can use this type of writing to engage in short, impromptu, informal writings that promote content learning, demonstrate thinking on paper, and clarify and organize thoughts.

How will infusing AVID support writing to learn?

Writing-to-learn activities are sometimes seen as "low-stakes" bursts of writing that focus the student's attention on the process rather than the product. They are a means to enhance critical thought. In "Writing to Learn Means Learning to Think," Syrene Forsman (1985) indicated that "if students are encouraged to try a variety of thought processes in classes, they can, regardless of their ages, develop considerable mental power. Writing is one of the most effective ways to develop thinking" (p. 162). Forsman explained that writing to learn is, in essence, learning to think about what students already know and how that fits with new information. Through writing-to-learn activities, students "find more questions" and "clarify what they think"—in other words, they become "thinking learners" (Forsman, 1985, p. 174).

Writing to learn, a foundational component of AVID's methodology, can be utilized in all content areas for all learners. And it can be used to accomplish many educational goals:

- Activating prior knowledge
- Clarifying
- Processing information
- Reinforcing
- Connecting
- Summarizing
- Synthesizing
- Reflecting
- Metacognition

Providing opportunities for short bursts of informal writing will empower students to become more thoughtful, critical, creative, and engaged learners.

Bazerman et al. (2005) noted that the "process-over-product movement" began in 1977 with Janet Emig's landmark article "Writing as a Mode of Learning," in which she indicated that "because writing is neurophysio-logically integrative, connective, active and available for immediate visual review... it represents a unique form of learning" (p. 58).

For research-based, discipline-specific approaches to writing to learn, see *Reference Guide to Writing Across the Curriculum* by Bazerman et al., pages 62–65.

Educator Outcomes

After reading this chapter, educators will be able to:

- Effectively define *writing to learn* and recognize its value in deepening students' learning.
- Structure authentic opportunities for students to engage in writing to learn.
- Increase students' metacognition through writing-to-learn strategies.

Pre-Reading Reflection Questions

- What writing-to-learn strategies do I already employ to deepen students' understanding of content?
- How can I leverage writing to learn as I encourage students to reflect on their thinking and engage in learning?

Pre-reading questions are useful to activate prior knowledge about strategies and skills educators are familiar with. Building on prior knowledge aids in the metacognitive process of identifying which strategies are being used and will continue to be useful, which ones need to be honed or tweaked, which ones will be newly adopted, and which ones are not useful to advance the instructor's objectives.

INSTRUCTIONAL PRACTICE: Quickwrite

A quickwrite is one of the most accessible writing-to-learn activities. The quick burst of writing can be woven into a lesson plan or implemented spontaneously to gauge students' understanding.

A "quickwrite" is an informal writing-to-learn activity in which the instructor provides a prompt and a few minutes for students to write freely. It engages all students simultaneously and allows them to generate and capture ideas quickly. Free writing, a term coined by Ken Macrorie (1968) and popularized by Peter Elbow (1998), is a nimble strategy that is well suited to adaptation for all content areas. By writing their ideas without stopping, without editing, and without worrying about the confines of grammar rules, students have the opportunity to reflect on and retain ideas for later use.

Informal writing can empower students to clarify thoughts, strengthen writing skills, and reflect on their learning. In the process, this short burst of writing opens up channels of critical and creative thought and engenders confidence.

Instructional Objective

- Students will process learning to meet educational goals through low-stakes writing activities such as quickwrites.

Guiding Question

- How might I invite students to dive into content using writing-to-learn strategies?

Resource

- *Instructor Resource: Quickwrite: Holistic Scoring Guide*

Process

Time to implement: *Varies depending on instructor objectives and learner outcomes; 5–8 minutes*

- Assign a topic or prompt for the quickwrite, and set a time limit for the task. If the objective of the quickwrite is to generate students' thinking, stress that there are no "right" or "wrong" answers. However, if there are right or wrong answers for a particular prompt, students could consult with a partner or their notes to check for understanding prior to beginning the quickwrite.
- Encourage students to read the prompt and determine what they are being asked to do. Model the thought process by thinking aloud:
    - *What is the point of this writing prompt?*
    - *In what ways might the prompt be addressed?*
    - *Are there many ways to address the topic?*

If students are performing a quickwrite for the first time, it is helpful to give them practice by asking them to brainstorm and complete a sample quickwrite as a class. During the group brainstorm, the educator can be the class scribe and write the quickwrite on the whiteboard.

- Provide commentary on the process of completing the task, the quality of students' input, and how the response may be used by students to guide their thinking.
- Instruct students to begin to write. Encourage them to write continually during the set time.
- When time is called, invite students to pair with a neighbor and share their writing.
- Refer to the *Instructor Resource: Quickwrite: Holistic Scoring Guide,* which includes sample writing-to-learn criteria to assess students' quickwrites in a holistic manner.

Extension

"Looping" is a technique that can be used to deepen the quickwrite strategy.

- After students have completed a quickwrite, ask them to review what they have written and circle an interesting topic, idea, phrase, or sentence.
- After identifying the interesting item, instruct students to repeat the quickwrite process, concentrating only on that specific item.
- When time is called, invite students to pair with a neighbor and share their writing.

Quickwrite: Holistic Scoring Guide

Student: _____ **Date:** _____

Objective: Students will practice a low-stakes writing-to-learn activity that enables them to engage in learning content.

Skill Assessed	0	1	2	Score
Reflection	Quickwrite does not reflect deeply about the idea(s) given in the prompt.	Quickwrite reflects the idea(s) given in the prompt.	Quickwrite reflects the idea(s) given in the prompt and provides an example of metacognition.	
Attention	Quickwrite does not address the prompt.	Quickwrite addresses the prompt.	Quickwrite addresses the prompt and provides details that inform the reader of thought processes.	
Connection	Quickwrite does not connect to course content.	Quickwrite connects to course content.	Quickwrite connects to course content, prior knowledge, and/or concepts or events in the larger world.	

Total: _____

INSTRUCTIONAL PRACTICE: Minute Papers

Similar to quickwrites, minute papers are very short in-class writing exercises (completed in a minute or less of writing time) that allow students to deepen their understanding and reflect on their learning about a topic. Minute papers were originally developed by Charles Schwartz, a physics professor at the University of California, Berkeley (Davis, Wood, & Wilson, 1983), and then became popular through the work of Angelo and Cross (1993). They can be used to provide rapid feedback on whether the professor's main points and the students' interpretation of the main points match. This is a highly effective, "low-cost" tool that encourages students to integrate information delivered in the lesson.

The minute paper is extremely adaptable, as it can be shaped based on the instructor's objective and purpose as well as to reflect their style and pedagogical preference. Some classes are based on lecture-style lessons, while others are based on group activities and experiments. The malleable nature of the minute paper allows it to be tailored to all types and styles of instruction. The most important aspect of the minute paper is that it provides the opportunity for students to synthesize, clarify, and construct their own understanding. From this experience, more meaningful learning occurs.

Instructional Objective

- Students will reflect on their learning by summarizing information, identifying key points, making connections, becoming aware of learning gaps, and assessing knowledge using one-minute papers.

Guiding Question

- How might I use writing to learn to guide students as they synthesize texts?

Process

Time to implement: *Varies depending on instructor objectives and learner outcomes; 5–7 minutes.*

- Introduce a question, text excerpt, or writing prompt that will encourage a response that meets the level of critical thinking of the learning objective (e.g., summarize, synthesize, analyze, categorize, compare, evaluate, opine, argue). Sample prompts may include the following:
    - *What was the most important thing you learned today?*
    - *How does today's learning connect with previous lessons?*
    - *What do you predict the next lesson will address?*
    - *What questions remain?*
- Review the purpose of a minute paper with the students.
- When introducing the strategy, model the completion of a minute paper. Read the prompt, then begin to summarize and synthesize the material.
- Instruct students to write for one minute or less in response to the prompt.
- Encourage students to retain their minute papers throughout the term, as they will make effective study aids. Periodically invite students to review the minute papers to see if their questions have been addressed, and offer opportunities for them to ask any unresolved questions.

INSTRUCTIONAL PRACTICE: Journals and Learning Logs

Research has suggested that if students "engage in a short review of material presented to them at the end of a class period, they retain almost twice as much of its factual and conceptual content when tested for it at a later point in time" (Menges, 1988, as cited in Cuseo, n.d., p. 2). Guided reflection in the form of journaling or writing entries in a learning log is an activity that engages students in this type of review.

Journal writing in the writing-to-learn context engenders cognitive and/or reflective thoughts rather than emotional ones.

Journals and learning logs can be used to synthesize information by "collecting" thoughts. Reflecting on how one used to think in comparison to how one thinks now is a meta-cognitive synthesis. In addition, thinking about what one already knows, what one is learning, and what one will learn in the future is another way students can synthesize thoughts in their journals.

Journal writing can be a means of assessment for educators, as well as an instrument for providing students a place to "practice imaginative and speculative thinking" (Fulwiler, 1982, p. 15). It is an "interdisciplinary learning tool with a place in every academic classroom" (Fulwiler, 1982, p. 15). It allows students to synthesize new information, ask questions, and practice short bursts of writing. Additionally, it provides opportunities for students to reflect on course content, synthesize class notes, ask larger questions about the course content in relation to the world, analyze learning progress, or simply maintain a record of questions and responses. Journaling enables students to think and process new information while they make connections, transfer knowledge, and personalize their learning in ways that build a foundation for intellectual growth. Journals also enable instructors to gain vital information about students' learning, as they can be a means of formative and summative assessment (Donohue, n.d.).

Regardless of its purpose, maintaining a journal or learning log keeps students engaged in writing. There is a strong relationship between this type of writing and critical thinking. Fulwiler (1982) noted that through engaging in journal writing, students use their "writing to think with" (p. 19). Furthermore, there is a strong link between journal writing and improvement of student cognition. Fulwiler continued: "[journal writing] has called forth from the student a variety of learning strategies to help him synthesize important issues" (p. 20). Journaling allows students to engage in higher levels of inquiry as they think deeply about context and content. Fulwiler concluded that when journaling activities are used regularly, instructors will notice learning growth in their students (p. 30).

Instructional Objective

- Students will deepen understanding of course content by reflecting on key concepts and ideas and/or making connections to a larger context.

Guiding Question

- How can I use journals and learning logs to guide students' reflection about the content?

Resources

- *Student Resource: Learning Log/Reflective Journal*
- *Instructor Resource: Characteristics of Learning Logs*
- *Student Resource: Learning Log Variations*

Process

Time to implement: *Varies depending on instructor objectives and learner outcomes; 5–15 minutes*

- Establish a format for students to use for their journal or learning log. The *Student Resource: Learning Log/Reflective Journal* can be used as a template.
- Define for students the purpose of journals/learning logs, which is to provide an opportunity for them to engage in open-ended, nonthreatening writing tasks. Review the *Instructor Resource: Characteristics of Learning Logs.*
- Explain how the journals/learning logs will be graded. Depending on the educator's objective and purpose, they may be graded for participation points.
- Assign a prompt for each journaling activity. Journal prompts can be tied to the course content and can encourage students to reflect on metacognitive or affective thoughts as well.
    - **Content example:** *In our discussion yesterday, we talked about how the realist theory of international relations compares with the liberalist theory. Compare and contrast these theories on the four-dimensions model.*
    - **Affective example:** *As we near midterms, what are you doing to maintain balance in your life?*
- Encourage students to write in their journals/learning logs on a regular basis, as it provides a form of ongoing conversation that the students are conducting with themselves.

Encourage students to keep a section in the back of their journal to list key words, concepts, and phrases as an academic literacy learning tool.

Reflective journals can also be used by students to metacogitate about their learning. Guide students as they think about these important reflective questions:

- What they learned
- How they learned
- What strategies they employed to learn
- What strategies they wished they would have employed
- What successes and challenges they encountered during the learning process

Variations

Use the *Student Resource: Learning Log Variations* as a reference for various learning log options.

Full-Page Journal: A full-page journal is a deepening of a journal/learning log entry.

- Invite students to review their journals/learning logs and choose an entry (or a few) they like best.
- Encourage students to expand on the idea(s) and submit a full-page reflection regarding the idea(s) from that entry.

Reflective Journaling: Using a journal for reflection challenges students to construct meaning from their learning and allows them to deepen their understanding of content. Reflective journaling enables students to develop confidence as they interact with texts and think critically about their learning experience.

- Instruct students to reflect on their journal/learning log entries.
- As students think about reactions, questions, connections, and/or content interpretations, invite them to ask: "What?"; "Now what?"; and "So what?"

Learning Log/Reflective Journal

What we did:	What I learned/observed:	How can I use/modify/apply this concept?

Characteristics of Learning Logs

Characteristic	Explanation
Regular and Frequent	Allow 3–7 minutes at the beginning, in the middle, or at the end of a lesson. Learning logs are effective at the beginning of the class as students are settling in or as exit slips to wrap up the learning during the class.
Short	Short, timed writing sessions work best. It is better to leave a few students wanting to express more than to have most of the class struggling with nothing more to say. Build confidence by beginning with short increments of time that can be increased as students become more proficient and comfortable with the reflective process.
Minimally Structured	Encourage students to write what they really think, not what they think the instructor wants them to say.
Academic	Students should focus on an academic challenge or issue.
Uncorrected	To encourage honest responses and reduce apprehension, do not "correct" the writing in a learning log. Instead write comments and genuine questions in a conversational manner.
Credited	Students may receive credit for each completed learning log. Set the standards at the start: a certain amount of writing and thought is expected as a minimum. The general expectations, the class environment, and the reinforcement of the importance of the time spent on learning logs should help reduce the tendency for some students to waste the time.
Shared and Responded	To learn the most from their writing, students need both an audience and appropriate models. Sharing learning logs provides both, allowing students to see and discuss a variety of responses as well as reinforcing the lesson's concepts. Responses to entries may involve oral sharing in pairs, small groups, or a large group, as well as direct comments from the instructor. It is important that instructors inform students prior to writing whether the learning logs will be shared and how that sharing will occur. Spending time in class on learning logs emphasizes the importance of writing, validates the students' reaction to the lessons, and provides an opportunity for students to reflect on their own learning and thinking.
Managing the Paper Load	Learning logs take time: time to think, time to write, and time to share. Another concern for instructors is the time it takes to read and respond to the writing. Do not read everything students write. • Ask students to star entries for the instructor to read. • Skim entries until there is something to respond to, and then comment or question briefly. • Have students share logs in pairs or small groups and then lead the class in a discussion of the ideas expressed. The time spent sharing and responding becomes even more valuable than a written response because the dialogue helps to clarify ideas.

Learning Log Variations

A learning log is related to the subject material in class. In a learning log, you are asked either to talk about what you have been learning in class or reflect on it in some way, or to relate something outside of the classroom to what you have been learning in class. Making personal connections with the subject matter engenders meaningful learning. Learning logs can be used in conjunction with note-taking.

Basic Learning Log Questions	What did you do in class today? What did you learn? What did you find interesting? What questions do you have about what you learned?
Analyzing a New Idea	What were the main ideas? What did you understand best? What questions do you still have about this information? How will you find more information? How does this idea relate to what you already learned in class?
Quickwrites	Write nonstop for 2–5 minutes on a specific topic that you are studying. The purpose of focused writing is for you to find out what you know about a topic, to explore new ideas, and to find out what you need to learn about a topic.
Writing About the News	Choose an event that is unfolding in the media and is related to what is being studied in class. 1. Describe the event in detail. 2. What classroom topic does the event relate to and why? 3. What are your personal feelings about the event? 4. Why does this event interest you? 5. What do you predict will be the outcome of this event? Why?
Life Application	Apply the concepts you learned in class today to your life. How do they affect your everyday being? What would happen if they suddenly changed or ceased to exist?
Creative Solution	You can be creative. Take a real-world problem that relates to the course content (e.g., air pollution, global warming, poverty), and come up with creative solutions for this problem. Allow your solutions to be outlandish and unrealistic. Real solutions have often arisen from activities similar to this one.

Dialectical response is also called a "double-entry journal" in some contexts.

INSTRUCTIONAL PRACTICE: Dialectical Response

Dialectical response is a writing-to-learn strategy that facilitates students' interaction with a text by enabling them to take intellectual risks while gaining familiarity and experience connecting with the text. Students write a quotation or paraphrased passage on one side of the page, then react to that quotation or paraphrase on the other side of the page. In this way, students actively engage with the text and link their thoughts to the passage. This strategy encourages students' exploration, comprehension, and retention of material and fosters the connection between reading/viewing/listening and writing as students "reply" or respond to the text.

The dialectical response offers students an informal but structured manner in which to identify important information and record reactions and observations to that material. The informal format affords students a low-stakes writing opportunity to become familiar with examining sources, identifying passages, questioning claims, and relating to new information while having the latitude to explore and make mistakes. According to Nicholson-Preuss (2013), in recent years, increasing amounts of primary source material have been integrated into social and behavioral science curriculum; however, students' opportunity to intentionally engage with this type of information is lost if its use is "confined to high-stakes assignments" or one-time activities (p. 26). To counter this lack of engagement and exploration, educators can have students use the dialectical response strategy to interact with primary and secondary sources.

Instructional Objective

- Students will select an important, meaningful, interesting, or confusing phrase, quotation, or section from a text, then write reflectively about that quotation or section.

Guiding Question

- How might I encourage students to interact and connect with texts and/or primary and secondary source documents?

Resource

- *Student Resource: Dialectical Response*

Process

Time to implement: *Varies depending on instructor objectives and learner outcomes, as well as time provided for assigned reading; 15–20 minutes.*

- Instruct students to fold a piece of paper in half. Students can also use the *Student Resource: Dialectical Response* for this exercise.
- Inform the students that they will use the left side of the paper to write a phrase, quotation, or section from the text that was important, meaningful, interesting, or confusing to them.
- Direct students to use the right side of the paper to interact with the text they wrote on the left side. Review ways students can interact with a text (e.g., questioning, reacting, responding, connecting, interpreting, etc.).
    - If desired, provide ideas for students to consider while interacting with the text:
        - Ask how the information relates to the course.
        - Question and challenge the ideas presented by the author.
        - Consider whether the quotation/passage engenders new ideas for them.

Dialectical Response

Name of Source:

Page Number of Quotation:

Quotation/Paraphrased Argument/Specific Facts or Claims	Reaction and/or Response

INSTRUCTIONAL PRACTICE: One-Pager

A One-Pager is just that—a one-page document that provides an overview of a text. This adaptable strategy provides an opportunity to capture and record ideas from a text on one page in a unique, creative way. It encourages students to summarize, synthesize, and apply knowledge learned from reading a text. In addition, a One-Pager can allow students to connect a piece of text with a visual, which can be drawn from the text or student generated.

Instructional Objective

- Students will interpret a text through production of a visual that captures, synthesizes, summarizes, and applies information using the One-Pager strategy.

Guiding Question

- How might I support a creative opportunity for students to summarize a text?

Process

Time to implement: *Varies depending on instructor objectives and learner outcomes, as well as time provided for assigned reading; 15–20 minutes.*

- Assign a text to the class.
- Direct students to form groups of 4–5.
- Inform the groups that they will use one piece of notebook paper or chart paper to creatively summarize and react to the assigned text. Topics to be included on the One-Pager include the following:
    - Title/Topic
    - Author
    - Concise statement of the author's claim, theme, or thesis
    - Three or more quotations or paraphrases from the text that relate to the author's claim, theme, or thesis
    - A response to each quotation or paraphrase (ask students to respond to the passage in an analytical rather than personal manner)
    - One or more graphic representations or visuals that interpret the quotations or paraphrase
- Guide students to use their One-Pagers in a variety of ways (e.g., a final project, a pre-writing exercise for a larger paper, a visual aid for group sharing, or a study tool to summarize content).

INSTRUCTIONAL PRACTICE: Focused Note-Taking

There are many forms and formats for note-taking and processing. Selecting one will depend on the educator's objectives and students' individual learning preferences. Focused note-taking is based on the important work of Walter Pauk and his groundbreaking Cornell notes system.

Note-taking is a critical information-processing device. Despite its importance, note-taking is often undervalued as a writing-to-learn tool.

Note-taking has two key functions: recording and reflection (Boch & Piolat, 2005, p. 102).

- **Recording:** Recording information enables students to capture it for later use. According to Boch and Piolat (2005), note-taking is an essential tool that allows students to gather information from lectures, books, and other sources that they will later be asked to recall. It is an "external" storage of information (pp. 102, 104).
- **Reflection:** Note-taking itself also creates a type of "internal storage." Using note-taking as a means of reflection allows students to perform a "range of intellectual processes, such as making judgments, resolving issues, and making decisions" (Boch & Piolat, 2005, p. 102). It can also aid in coding and retrieval of information, which can help students resolve problems (pp. 102–104).

Most students understand that taking notes is important, yet few students are taught even "basic note-taking skills" (Boch & Piolat, 2005, p. 110). This instructional deficit is reflected in students' ability to take notes. O'Donnell and Dansereau (1993) found that students capture only 20–40% of main ideas while note-taking. Fortunately, educational researchers Marzano, Pickering, and Pollock (2001) have suggested that students' note-taking can improve when the skills are addressed directly and integrated into the specific course design. Integration allows for reinforcement of the content and note-taking concepts.

Instructing students in focused note-taking is important to their learning, as the process itself entails fairly complex tasks involving selection, organization, interpretation, and summarization of main ideas. The process is further complicated by the fact that the typical speaking speed is 2–3 words per second, while the typical writing speed is 0.2–0.3 words per second (Piolat, Olive, & Kellogg, 2005, p. 297). Accordingly, students need to develop methods to capture the essence of the material conveyed to them (Boch & Piolat, 2005, p. 111). To this end, it is essential that instructors guide students in developing note-taking skills.

According to Nicholson-Preuss (2013), instruction in note-taking does not require "radical redesign" of course content or "the sacrifice of content objectives" (p. 12). It can involve a scaffolded approach to a note-taking process and framework.

See *AVID Writing for Disciplinary Literacy: A Schoolwide Approach*, Chapter 3, for more information on focused note-taking.

Focused note-taking involves five phases, which can be modified and adapted to fit specific content areas.

- **Taking Notes:** This phase involves setting up the note page and taking notes. Students set up the paper or digital page, and take notes based on an information source.

- **Processing Notes:** In this phase, students think about their notes as they underline, highlight, circle, chunk, and question information. In doing so, they are sorting, selecting, and combining information (Boch & Piolat, 2005, p. 106). While this step can be a difficult one, Boch and Piolat indicated that extracting information, combining concepts, and sorting and classifying is beneficial to learning.
- **Connecting Thinking:** This phase involves thinking beyond the notes as students use inquiry to make connections and deepen learning. Creating questions in the left-hand column to extract, sort, and classify information and combine concepts is an important aspect of this phase. By connecting thinking, students connect their learning to prior knowledge, identify gaps in their knowledge, and reach greater understanding.
- **Summarizing and Reflecting on Learning:** This phase involves thinking about the notes as a whole. This part of the process encourages students to combine the main points of the notes, allowing them to create a summary that captures the importance of the content and connect what they already know to what they just learned. Also important in this phase is the metacognitive aspect, wherein students recognize and reflect on what they are doing as they note-take, decide what is working (and what is not) about the process, and regulate their note-taking behavior based on this evaluation (Boch & Piolat, 2005, pp. 108–109).
- **Applying Learning:** This phase involves students using their notes as a resource or learning tool in order to apply and demonstrate their understanding of the information. It is important to note that while applying learning is the last phase of the focused note-taking process, it should inform the first phase, as the note-taking format should be conducive to the note-taking objective.

In this and following chapters, many application opportunities for note-taking are described and detailed, including Socratic Seminars, Philosophical Chairs, and One-Pagers.

As noted, instructors can scaffold focused note-taking by starting the term with a general discussion of the importance of note-taking and how to hone the skill for their particular content area (Nicholson-Preuss, 2013, p. 12). Then, instructors can devote a small fraction of class time to guide in the process of note-taking, followed by sporadic reinforcement reminders (Nicholson-Preuss, 2013, p. 12). Introducing the note-taking structure and purpose in this way provides students with a framework they can modify and adapt to satisfy their individual styles and the needs of the course.

Instructional Objective

- Students will note relevant information in an organized and systematic manner using focused note-taking.

Guiding Questions

- How can I support students as they move through the focused note-taking process to record, access, retain, and recall content?
- How can I encourage students to reflect on the focused note-taking process?

Resources

- *Student Resource: Note-Taking Format*
- *Student Resource: Summary vs. Reflection*

Process

Time to implement: *Varies; recommended implementation in scaffolded segments depending on content, instructor objectives, and learner outcomes*

For information on note-taking with pen and paper versus a computer or digital device, refer to the research of Pam A. Mueller and Daniel M. Oppenheimer (2014) and Michael C. Friedman (2014).

Many students take notes on main ideas but do not capture supporting details and examples. This information is important when students try to deepen their learning through application.

- **Taking Notes:**
  - Set up the page:
    - Direct students to set up the note page by drawing a vertical line down the page, leaving a column on the left that spans approximately one-third of the width of the paper.
    - Instruct students to also leave approximately 3–4 lines at the bottom of the page for a summary.
    - Encourage students who take notes electronically to set up tables or find graphic organizers online. Inform them that fillable PDFs are available as well.
  - Take notes:
    - Inform students that they will take notes in the right-hand column.
      - Indicate that notes should consist of main ideas, supporting details, examples, and other important pieces of information.
      - Encourage students to capture and organize notes using abbreviations, symbols, indentations, spacing, and highlighting.
- **Processing Notes (right column):**
  - Inform students that during the note-processing stage, they should correct, revise, and complete their notes as needed.
  - After students have written their notes, encourage them to review and revise them, ideally within 24 hours. Michael C. Friedman (2014) of the Harvard Initiative for Learning and Teaching recommended that students review notes "early and often" (p. 20). By early, he indicated shortly after taking them, "ideally the same day" (p. 20). Friedman explained that this practice allows students to clarify points as well as clear up questions that may linger.
- **Connecting Thinking (left column):**
  - In this phase of the note-taking process, inquiry becomes the focus for the learner. Students are encouraged to ask questions in order to link their thinking to prior knowledge, making thoughtful connections to the information and how it relates and applies to the world beyond academia.
  - Instruct students to interact with the information to create questions and develop recall cues. Ask students to write these questions and cues in the left-hand column, adjacent to the related notes in the right-hand column. Inform students that the questions can also provide them with a resource for self-testing, which is one of the most effective study techniques students can employ (Karpicke & Roediger, 2008, 2010; Kornell & Son, 2009; King, 1991).

- **Summarizing and Reflecting on Learning:**
    - After students have processed their notes, instruct them to create a summary of their notes at the bottom of the page (or other designated space on the note page).
        - The summary pulls together the most important aspects of the notes, capturing the meaning and significance of the information. It reviews, summarizes, and synthesizes the main ideas into a concise few sentences.
    - Additionally, ask students to reflect on the process of note-taking and their experience, thus empowering them to self-regulate during future note-taking. Guide students to think about these questions:
        - *How did you take notes in this class?*
        - *Why did you take notes this way?*
        - *Are you satisfied with your notes? Why or why not?*
        - *What would you change about your note-taking practices?*
    - Invite students to compare their notes with a partner:
        - *What aspects of your partner's note-taking would you find beneficial?*
        - *Compare how you and your partner process or reflect on your notes when you are done taking them.*
- **Applying Learning:**
    - During this phase, students use their notes as a resource or learning tool to apply or demonstrate what they have learned. Going through the steps of the note-taking process prepares students to extend beyond in-class learning. Depending on the educator's objectives, this application of learning can take many forms, such as preparing for tests, beginning a research project, or aiding in academic discussion.

Note-Taking Format

Questions and Main Ideas	Notes
Summary:	

Summary vs. Reflection

The GIST strategy (Generating Interactions between Schemata and Text) was developed as a collaborative learning strategy to increase comprehension of expository texts (Cunningham, 1982). GIST is a summarizing or comprehension strategy used to convey "the essence" or gist of a text.. Summarizing through the GIST strategy requires students to analyze and synthesize information—higher-order thinking skills that increase students' comprehension and retention of material.

	Summary	Reflection
What	• Condenses main point(s) and key information of lecture, text, or video. • Gives the GIST, the main ideas presented in notes and questions. • Paraphrases or states main ideas in one's own words. • Includes important content and lesson-based vocabulary.	• Shows critical thinking and mental processing about learning and experiences. • Considers "What?"; "So what?"; "Now what?" • Shows purposeful processing that relies on thinking, reasoning, and examining one's own thoughts, feelings, and experiences. • Includes important content and lesson-based vocabulary.
Where	• In notes	• In learning logs
Why	• Highlight the major points from the original text and process information from the notes.	• Connect new learning to prior learning, one's self, or the real world. • Find solutions and draw conclusions, resulting in a better understanding of content/information. • Learn from reflecting on the experience.
How	• Synthesize information recorded in the notes to internalize the learning.	• Reflect on learning, on one's self as a learner, and on how one best learns as a way to increase abilities and future learning.
When	• Within 24 hours	• Immediately following the learning, experience, or activity

INSTRUCTIONAL PRACTICE: Interactive Notebooks

An Interactive Notebook is an information-processing tool that provides a framework for students to be independent, critical thinkers. It is a place where students can organize, summarize, and synthesize information. Research has shown that "the brain learns by making connections between what is experienced and what that experience means to the learner" (Caine, Caine, McClintic, & Klimek, 2009, p. 7). The Interactive Notebook can help students make those connections. It can also function as a self-testing tool to aid students as they seek to learn and remember material.

Instructional Objective

- Students will interact with course content by organizing, synthesizing, and reviewing concepts and ideas using Interactive Notebooks as a tool and resource.

Guiding Question

- How might I instruct and support students in their use of Interactive Notebooks as a tool to dive deeply into content, synthesize information, and link learning?

Resource

- *Instructor Resource: Interactive Notebook (INB) Rubric*

Process

Time to implement: *Varies depending on instructor objectives and learner outcomes; 20–25 minutes for notebook set-up*

- Instruct students to purchase a spiral-bound notebook (50+ pages).
- Indicate that students will begin numbering each page of their notebook, starting six pages in. Students should write the page numbers on the top outside corner of each page (front and back).
- Direct students to label the first two unnumbered pages (front and back) "Quick Reference." In this section, they can record information such as course objectives, protocols, or formula charts.
- Indicate that students should label the next four unnumbered pages with the heading "Table of Contents." They will fill in the table of contents as they create their Interactive Notebook.
- Instruct students to reserve and label the last four pages in their notebook for vocabulary. In this section, they will record key terms and definitions.
- Inform students that they will set up the actual note pages using a format similar to focused note-taking. (Refer to Instructional Practice: Focused Note-Taking on pages 46–49.)
    - The right-hand page is reserved for students' "input." On the right-hand page, students will take notes or reproduce graphics, visuals, charts, diagrams, etc.
    - The left-hand page is reserved for students' "output" (Young, 2003). On the left-hand page, students can process the information by organizing their notes, commenting on the information, creating questions, linking learning, creating diagrams or graphs, etc.

Examples of "output" include:
Drawings
Diagrams
Quickwrites
Brainstorms
Level 2 and 3 Questions
Reflections
Summaries

Interactive Notebook (INB) Rubric

Trait	1 – Limited	2 – Basic	3 – Proficient	4 – Advanced
Reading & Research	Poor reflection entries offer no insight or attempt to interpret the right side entries. May include many blank pages.	Overall presentation of written and visual elements is average or below. There are marginal responses entered offering little insight and fewer original ideas.	Most entries are generally good, though with less insight than advanced. The INB has a varied quality of reflections or presentation, though all the required entries are present.	Most entries reflect excellent and accurately displayed personalized notebook entries. The INB shows consistent effort in clearly written information and insightful reflection.
Focus/Controlling Idea	The INB contains an inaccurate focus throughout. No attempt is made to analyze or respond to the text.	Most entries show an attempt at establishing a focus but it is not always clearly stated. There is evidence the INB creator may not understand the materials.	Each entry maintains focus with slight variation in quality. Original thinking sometimes results in unclear direction.	Each entry maintains precise focus with consistent accuracy. The assigned topics show strong adherence to the prompt's direction and with originality.
Content Development	The INB has poor or weak content development with no support shown from the texts. No insights are offered and little or no effort is evident.	The INB quality is diminished by ineffective or marginal responses. Some effort is evident in original thinking but is generally unclear.	Details are sequenced and stated clearly but may not be fully developed. The writer includes all required elements of response.	The INB demonstrates a superior systematic collection of accurate details for each response.
Organization of Ideas	Organizational strategies lack purpose, are weak or not evident at all. Each section might be skimpy and have missing required entries.	The INB has minimal organizational design or display of strategies. Marginal interaction with other parts of the text is evident.	The INB has legible format with numbering and table of contents. Good design, though lacking in inspiration.	Numbering of pages is neatly displayed and the pages, including the table of contents, all show required format. There is excellent use of color and design throughout. Responses are easy to read and understand.
Style & Conventions	The INB has no evidence of editing or stylistic control. Serious errors in grammar and usage.	The INB may use basic vocabulary or unsophisticated sentence structure, but some attempt to control sentence patterns is evident. Contains errors but not so numerous as to obscure meaning.	The INB demonstrates appropriate use of conventions and intentional stylistic manipulation, though with less sophistication than advanced status. May have some errors but is generally edited accurately.	Stylistic elements are of original design. Notebook shows superior effort to create a visual and excellent design.

Post-Reading Reflection Questions

- What particular course content is challenging for students? What writing-to-learn strategies can I employ to unpack the challenging concepts?
- How will I leverage writing to learn as I encourage students to reflect on their critical thinking and learning processes?
- What are my initial steps to engage students in utilizing writing-to-learn strategies to deepen understanding of content? How can I build on these steps as I gauge students' knowledge and reflections about course content?

Conclusion

Writing is a powerful tool for learning (Rivard, 1994). Writing-to-learn strategies were introduced in this chapter as a dynamic and nimble method for educators to scaffold students' learning. Not to be mistaken as strategies for learning to write, the instructional practices presented in this chapter provide instructors with tools that can be implemented across many disciplines, thereby giving students frameworks for creating written records of the *why, what*, and *how* in terms of processing content. Through meaningful writing experiences, students can deepen their learning, think critically, process reflectively, and retain information more efficiently.

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CHAPTER THREE

Inquiry

Visit the *AVID for Higher Education: High Engagement Practices for Teaching and Learning* webpage
on MyAVID for additional materials and resources.

> *Tell me and I forget, teach me and I may remember, involve me and I learn.*
>
> Chinese proverb

CHAPTER **Introduction**

Inquiry-based learning is about involvement. It is about uncovering understanding and engaging students in their own learning by activating curiosity, encouraging questions, and searching for answers. The involvement of students in inquiry-based learning leads to comprehension as it cultivates skills and attitudes that foster answer-seeking while simultaneously building knowledge.

Dictionary.com (2017) defines inquiry as "a seeking or request for truth, information, or knowledge" and "the act of inquiring or seeking information by questioning." Learners are often charged with the task of exploring the content being presented. This inquisitive process is a skill that extends beyond the instructor's demonstration of knowledge. Hunkins (1995) said: "The good thinker, possessing attributes enabling him or her to create and use meaning—to add to knowledge and culture—possesses a spirit of inquiry, a desire to pose questions central to the world. The good thinker ponders their world, actual and desired, querying things valued and desired" (p. 18).

Why focus on inquiry?

Inquiry-based learning is essential in today's society, as memorizing facts is not the most important skill for the 21st century learner. Content is, and always will be, important. However, since information is dynamic and constantly changing, it is unrealistic to expect students to know everything about a subject. For today's students, the "skills and the ability to continue learning should be the most important outcomes" (Exline, 2004).

Derek Bok (2006), former president of Harvard University, affirmed this point, stating that "the ability to think critically—to ask pertinent questions, recognize and define problems, identify the arguments on all sides of an issue, search for and use relevant data, and arrive in the end at carefully reasoned judgments—is the indispensable means of making effective use of information and knowledge" for 21st century students (pp. 109–110). Exline (2004) addressed the importance of inquiry for students moving into the workforce: "In the past, our country's success depended on our supply of natural resources. Today, it depends upon a workforce that 'works smarter.'" Through inquiry, students "work smarter" as they use higher levels of thinking to seek solutions to questions rather than search for the "right answer."

What is inquiry-based learning?

Inquiry-based learning involves seeking knowledge, asking critical questions, and engaging in higher-level thinking, learning, and discussion. It is a student-centered instructional process that begins with giving students a challenge or problem to solve, essentially establishing inquiry as an avenue to foster the process of critical thinking (Levy, Little, McKinney, Nibbs, & Wood, 2010; Prince & Felder, 2007).

How does AVID support inquiry in the learning processes?

Inquiry, a foundational AVID component, can foster critical thinking skills in students by encouraging them to engage in "intelligent confusion" (Kroll, 1992, p. 98). In turn, educational psychologists have commented on the processing of information that occurs during learning. For example, King and Kitchener (1994) described "a shift in the action of knowing in the higher stages, with the knower moving from spectator to an active constructor of meaning" (as cited in Hofer, 2000, p. 381). Thompson (2010) stated that most college students are "basic" thinkers and that the educator's task is to develop students' higher-level thinking skills. These thinking skills involve not only asking questions but also generating new ideas and engaging in divergent thought. AVID's success in promoting inquiry as part of its WICOR framework can be attributed to an instructor's willingness not only to encourage but also require evidence of metacognition from students.

The process of inquiry starts with information gathering and moves recursively through deeper levels of thinking as students seek out knowledge. Inquiry-based learning is more than just asking questions; it is a process that "involves several factors: a context for questions, a framework for questions, a focus for questions, and different levels of questions" (Exline, 2004). Exline stated:

> While questioning and searching for answers are extremely important parts of inquiry, effectively generating knowledge from this questioning and searching is greatly aided by a conceptual context for learning. . . Well-designed inquiry-learning activities and interactions should be set in a conceptual context so as to help students accumulate knowledge as they progress from grade to grade. Inquiry in education should be about a greater understanding of the world in which they live, learn, communicate, and work.

Gaining a better understanding of inquiry-based learning in higher education has led researchers to focus on creating definitions and processes to frame the practice. Justice, Rice, Roy, Hudspith, and Jenkins (2009) have noted that both instructors and students establish a culture of inquiry in higher education classrooms:

> Students focus on answering compelling questions, or getting a better understanding of the questions they have raised. Instructors support this process, acting as resource people and animators, and introducing intellectual and academic skills as they are needed. This work occurs in an environment supportive of open-minded discussions, the questioning of assumptions, and the critical assessment of information, evidence and argument. Inquiry refers both to the process of seeking knowledge and new understanding as well as to a method of teaching grounded in this process. By learning through inquiry, and learning to become inquirers, students master the processes and enabling skills involved in establishing concepts and facts, preparing the way for them to become researchers and lifelong learners. (p. 843)

In essence, inquiry-based education involves a shift from "what we know" to "how we come to know"—a focus that will benefit today's learners for tomorrow's world (Exline, 2004). Through the inquiry process, students learn transferable skills and gain the ability to use critical thinking to solve problems, readying them for success in the workplace and for careers that have not yet been invented (Bryce, n.d.).

Educator Outcomes

After reading this chapter, educators will be able to:

- Purposefully engage students in inquiry using Costa's Levels of Thinking to deepen and broaden their learning of content.
- Structure authentic opportunities for students to develop critical thinking and problem-solving skills by embedding and applying inquiry-based strategies that spark students' natural curiosity about content.
- Increase students' metacognition through inquiry processes.

Pre-Reading Reflection Questions

- What do I already know about my students' use of inquiry to engage deeply in content?
- How does the framework of Costa's Levels of Thinking fit into the goals I have for fostering critical thinking?
- What instructional practices do I already use and what practices can I adopt to foster and spark students' natural curiosity and support the development of critical thinking and problem-solving skills?
- How can I encourage metacognition and reflection in the learning process?

Refer to the *Instructor Resource: Critical Thinking and Problem Solving: Holistic Scoring Guide*, provided on the following page, as an example of how an instructor might assess a student's development of inquiry-based skills.

Bloom's Taxonomy is a fundamental framework used by many institutions to guide students as they dive into deeper levels of cognitive functioning. Bloom focused on six areas: Creating, Evaluating, Analyzing, Applying, Understanding, and Remembering. For more information, refer to the *Student Resource: Costa's and Bloom's Levels of Thinking: Comparison Chart* on page 64.

Inquiry and Costa's Levels of Thinking

One tenet of AVID's educational philosophy is that inquiry is fundamental to teaching and learning. It is a mechanism for establishing foundational knowledge and diving deeper into information. Through inquiry, educators can encourage students to ask questions, think broadly and deeply about the answers, and learn strategies to engage in this process. As Kroll (1992) indicated, inquiry is "intelligent confusion" (p. 98)—a messy process wherein problems have complex and sophisticated solutions.

Educational psychologists Benjamin S. Bloom (1956) and Arthur L. Costa (2001) have each provided a classification for the levels of intellectual thinking, also described as "levels of inquiry." It is important to note that implementation of an inquiry-based framework will be based upon the established educational guidelines to which your institution adheres; the decision to utilize either Bloom's or Costa's inquiry model lies within your purview.

Rather than delineating levels of intellectual activity into the six areas Bloom's work describes, AVID utilizes Costa's three levels of thinking as the framework for critical inquiry. Costa's levels address increasing complexity as one moves through them.

- **Level 1** describes foundational thought that involves gathering and recalling information.
- **Level 2** involves processing thought.
- **Level 3** guides students into application of information.

Once both educator and students have had the opportunity to consider the levels of thinking identified by Costa in his inquiry-based model, they may foster pathways upon which inquiry can become operationalized. The following descriptions distinguish the dynamics of what can be expected from both the educator and the student:

- **Educator-driven inquiry:** One pathway is educator-based, wherein the educator poses and explores content using open-ended, thought-provoking questions to draw students into higher levels of thought regarding the subject. Using questioning to engage students provides diverse viewpoints that incorporate content and develop and refine critical thinking skills.
- **Student-driven inquiry:** Another pathway is student-based, wherein the student learns how to ask thought-provoking questions utilizing critical thought as they dive deeper into content. In this manner, the student seeks to understand texts at higher, more complex levels through their own initiative.

It is important to note that Costa's Levels of Thinking, in and of itself, is an inquiry-based framework. It is a heuristic method, or springboard, for developing students' abilities to think critically and solve problems. As such, Costa proposes that creating a delineation and framework with distinct levels is not merely a way to create higher-level questions. The goal has become for instructors to elicit higher levels of *thinking*.

The following instructional practices exemplify the deepening of Costa's Levels of Thinking. They are introduced in a series that progresses along a continuum from easily accessible to more complex integrations.

Critical Thinking and Problem Solving: Holistic Scoring Guide

Student: _____ **Date:** _____

Objective: Students will define, analyze, and use information within a text or course content by using critical thinking skills to solve a problem or address an issue.

	Novice – 1	Intermediate – 2	Proficient – 3	Advanced – 4	Score
Inquiry-driven definition of problem	Student identifies factors that do not directly provide definition of the central problem or issue.	Student identifies few factors and provides limited definition of the central problem or issue.	Student identifies factors that define the central problem or issue.	Student identifies logically several factors that define the central problem or issue and includes supporting details.	
Inquiry-driven analysis of problem	Student analyzes information from the problem or issue that is mostly nonessential to the solution.	Student analyzes some of the information from the problem or issue that is both essential and nonessential to the solution.	Student analyzes most of the information from the problem or issue that is both essential and nonessential to the solution.	Student analyzes information clearly from various perspectives of the problem or issue that is essential to the solution.	
Inquiry-driven contextualization of problem	Student does not contextualize information clearly and provides insufficient explanation of why certain procedures are appropriate for solving the problem.	Student contextualizes some information and provides a limited explanation of why certain procedures are appropriate for solving the problem.	Student contextualizes information and explains why certain procedures are appropriate for solving the problem.	Student contextualizes information clearly and explains why certain procedures are and are not appropriate for solving the problem.	
Inquiry-driven solution to problem	Student does not provide a solution that is based on information appropriate for solving the problem.	Student provides a partial solution that is somewhat based on information appropriate for solving the problem.	Student provides a solution that is based on information appropriate for solving the problem.	Student provides a clear solution that is based logically on information appropriate for solving the problem and includes supporting evidence.	

Total: _____

To encourage focused note-taking (discussed in Chapter 2), direct students to brainstorm "What I see" in the right column of their note page. As the activity progresses, direct students to process "What I think" and "What I wonder" in the left column, opposite the information they wrote in the right column.

- "What I see" involves Level 1 thinking because the student can observe the item and comment directly on what they are seeing. The student's information is coming straight from the document or item, as if the student could put their finger on it—it is "on the page." This is the most basic level of thinking; it gathers information about an item.
- "What I think" involves Level 2 inquiry because students are thinking "between the lines," analyzing the object or content.
- "What I wonder" involves Level 3 inquiry because students are thinking "off the page," wondering and applying their information to new and different scenarios. This type of thinking involves creative application and deeper insight.

INSTRUCTIONAL PRACTICE: Levels of Thinking – *What I See, What I Think, What I Wonder*

To promote inquiry, it is beneficial for students to receive explicit instruction, including opportunities to respond to prompts that require them to observe and analyze information. This process deepens their understanding and reinforces concepts.

Instructional Objective

- Students will process critical thinking and learning through inquiry-based activities involving observation.

Guiding Question

- How can I encourage and guide students to understand, recognize, and create Level 1, 2, and 3 questions?

Resources

- *Student Resource: Costa's and Bloom's Levels of Thinking: Comparison Chart*
- *Student Resource: Costa's Levels of Thinking: Vocabulary*
- *Instructor Resources: Costa's Levels of Thinking (Math, English, Science, Social Science)*
- *Instructor Resource: Promoting Rigor Through Higher-Level Prompts*

Process

Time to implement: *Varies depending on instructor objectives and learner outcomes; 7–10 minutes*

- Show students a text excerpt, a visual, a song, an artifact, an image, or another observable item.
- Ask students to brainstorm what they see and/or hear. Instruct students to record their observations. Discuss why this observation component involves Level 1 thinking. Guide students as they view the *Student Resource: Costa's and Bloom's Levels of Thinking: Comparison Chart* and the *Student Resource: Costa's Levels of Thinking: Vocabulary*.
- After initial Level 1 observations, ask students what they think about the object or item. This involves Level 2 inquiry. Guide students as they consider Level 2 questions.
- After Level 2 thinking, encourage students to wonder about the object or item. This type of thinking encourages students to process using Level 3 thinking.
- To pull it all together, encourage students to "see," "think," and "wonder" at the same time. Engage them in all types of thinking to experience how different the thought processes are.
- Refer to the Instructor Resources following this instructional practice for examples of questions and prompts that correspond with the three levels of thinking.

Costa's and Bloom's Levels of Thinking: Comparison Chart

LEVEL	COSTA'S	BLOOM'S	VOCABULARY WORDS FOR LEVELS OF THINKING		
Higher-Order Thinking Skills	**(OUTPUT)** **Applying Information:** Applying and evaluating actions, solutions, and connections made in order to predict	**Creating:** *Students can:* • Create/generate new ideas, products or points of view • Combine ideas/thoughts to develop an innovative idea, solution, or way of thinking	Assemble Build Construct Create Design	Develop Devise Formulate Imagine Invent	Make Plan Produce Write
		Evaluating: *Students can:* • Justify a stand or decision • Judge the value of an idea, item, or technique by creating and applying standards/criteria	Appraise Argue Check Critique Defend Detect	Forecast Generalize Hypothesize If/Then Judge Predict	Select Speculate Support Test Valuate Value
	(PROCESSING) **Processing Information:** Making sense out of information; processing the information gathered by making connections, and creating relationships	**Analyzing:** *Students can:* • Distinguish between the different parts • Explore and understand relationships between the components/parts	Attribute Classify Compare Contrast Criticize Deconstruct	Differentiate Discriminate Distinguish Examine Experiment Infer	Integrate Organize Outline Question Sort Structure
		Applying: *Students can:* • Use the information in a similar situation • Apply learned concepts, strategies, principles, and theories in a new way	Carry out Choose Demonstrate Do Dramatize	Employ Execute Illustrate Implement Interpret	Operate Schedule Sketch Solve Use
Lower-Order Thinking Skills	**(INPUT)** **Gathering Information:** Identifying and recalling information	**Understanding:** *Students can:* • Explain ideas or concepts • Understand information provided	Classify Complete Describe Discuss	Explain Identify Locate Paraphrase	Recognize Report Select Translate
		Remembering: *Students can:* • Recall or remember the information • Recognize specific information	Define Duplicate List	Memorize Recall Repeat	Reproduce State

Adapted from "A Comparison of Bloom's Revised Taxonomy and the Three Story Intellect" by A. Churches, n.d., *Edorigami.wikispaces.com* under CC BY-SA license.

Costa's Levels of Thinking: Vocabulary

LEVEL 1				
Remember	Define Repeat Name	List State Describe	Recall Memorize Label	Match Identify Record
Show Understanding	Give examples Restate Discuss Express	Rewrite Recognize Explain Report	Review Locate Find Paraphrase	Tell Extend Summarize Generalize
LEVEL 2				
Use Understanding	Dramatize Practice Operate Imply Apply	Use Compute Schedule Relate Illustrate	Translate Change Pretend Discover Solve	Interpret Prepare Demonstrate Infer
Examine	Diagram Distinguish Compare Contrast Divide	Question Inventory Categorize Outline Debate	Analyze Differentiate Select Separate Point out	Criticize Experiment Break down Discriminate
Create	Compose Design Propose Combine Construct	Draw Arrange Suppose Formulate Organize	Plan Compile Revise Write Devise	Modify Assemble Prepare Generate
LEVEL 3				
Decide	Judge Value Predict Rate	Justify Decide Measure Choose	Assess Select Estimate Conclude	Summarize
Supportive Evidence	Prove your answer. Support your answer.	Give reasons for your answer.	Explain your answer. Why or why not?	Why do you feel that way?

Costa's Levels of Thinking: Math

LEVEL 1	LEVEL 2	LEVEL 3
• What information is provided? • What are you being asked to find? • What formula would you use in this problem? • What does _____ mean? • What is the formula for…? • List the…. • Name the…. • Where did…? • What is…? • When did…? • Explain the concept of…. • Give me an example of…. • Describe in your own words what _____ means. • What mathematical concepts does this problem connect to? • Draw a diagram of…. • Illustrate how _____ works.	• What additional information is needed to solve this problem? • Can you see other relationships that will help you find this information? • How can you put your data in graphic form? • What occurs when…? • Does it make sense to…? • Compare and contrast _____ to _____. • What was important about…? • What prior research/formulas support your conclusions? • How else could you account for…? • Explain how you calculate…. • What equation can you write to solve the word problem?	• Predict what will happen to ____ as ____ is changed. • Using a math principle, how can we find…? • Describe the events that might occur if…. • Design a scenario for…. • Pretend you are…. • What would the world be like if…? • How can you tell if your answer is reasonable? • What would happen to _____ if _____ (variable) were increased/decreased? • How would repeated trials affect your data? • What significance does this formula have for the subject you're learning? • What type of evidence is most compelling to you?

Costa's Levels of Thinking: English

LEVEL 1	LEVEL 2	LEVEL 3
• What information is provided? • Locate in the story where…. • When did the event take place? • Point to the…. • List the…. • Name the…. • Where did…? • What is…? • Who was/were…? • Illustrate the part of the story that…. • Make a map of…. • What is the origin of the word _____? • What events led to…?	• What would happen to you if…? • Would you have done the same thing as…? • What occurs when…? • Compare and contrast _____ to _____. • What other ways could _____ be interpreted? • What is the main idea of the story (event)? • What information supports your explanation? • What was the message in this piece (event)? • Give me an example of…. • Describe in your own words what _____ means. • What does _____ suggest about _____'s character? • What lines of the poem express the poet's feelings about _____? • What is the author trying to prove? • What evidence do they present?	• Design a ____ to show…. • Predict what will happen to ____ as ____ is changed. • Write a new ending to the story (event)…. • Describe the events that might occur if…. • Add something new on your own that was not in the story…. • Pretend you are…. • What would the world be like if…? • Pretend you are a character in the story. Rewrite the episode from your point of view. • What do you think will happen to ____? Why? • What is most compelling to you in this ____? Why? • Could this story have really happened? Why or why not? • If you were there, would you…? • How would you solve this problem in your life?

Costa's Levels of Thinking: Science

LEVEL 1	LEVEL 2	LEVEL 3
• What information is provided? • What are you being asked to find? • What formula would you use in this problem? • What does _____ mean? • What is the formula for…? • List the…. • Name the…. • Where did…? • What is…? • When did…? • Describe in your own words what _____ means. • What scientific concepts does this problem connect to? • Draw a diagram of…. • Illustrate how _____ works.	• What additional information is needed to solve this problem? • Can you see other relationships that will help you find this information? • How can you put your data in graphic form? • How would you change your procedures to get better results? • What method would you use to…? • Compare and contrast _____ to _____. • Which errors most affected your results? • What were some sources of variability? • How do your conclusions support your hypothesis? • What prior research/formulas support your conclusions? • How else could you account for…? • Explain the concept of…. • Give me an example of….	• Design a lab to show…. • Predict what will happen to _____ as _____ is changed. • Using a scientific principle, how can we find…. • Describe the events that might occur if…. • Design a scenario for…. • Pretend you are…. • What would the world be like if…? • What would happen to ___ if _____ (variable) were increased/decreased? • How would repeated trials affect your data? • What significance does this experiment have for the subject you're learning? • What type of evidence is most compelling to you? • Do you feel _____ experiment is ethical? • Are your results biased?

Costa's Levels of Thinking: Social Science

LEVEL 1	LEVEL 2	LEVEL 3
• What information is provided? • What are you being asked to find? • When did the event take place? • Point to the.... • List the.... • Name the.... • Where did...? • What is...? • Who was/were...? • Make a map of....	• What would happen to you if...? • Can you see other relationships that will help you find this information? • Would you have done the same thing as...? • What occurs when...? • If you were there, would you...? • How would you solve this problem in your life? • Compare and contrast _____ to _____. • What other ways could _____ be interpreted? • What things would you have used to...? • What is the main idea in this piece (event)? • What information supports your explanation? • What was the message in this event? • Explain the concept of.... • Give me an example of....	• Design a _____ to show.... • Predict what will happen to _____ as _____ is changed. • What would it be like to live...? • Write a new ending to the event. • Describe the events that might occur if.... • Pretend you are.... • What would the world be like if...? • How can you tell if your analysis is reasonable? • What do you think will happen to _____? Why? • What significance does this event have in the global perspective? • What is most compelling to you in this _____? Why? • Do you feel _____ is ethical? Why or why not?

Promoting Rigor Through Higher-Level Prompts

	VERBS	TEACHER PROMPTS *(Note the actual verb need not be in the prompt)*
LEVEL 1 – INPUT (GATHER/RECALL)	**COUNT**	How many apps are on your phone?
	COMPLETE	The primary element for life on Earth is _____.
	DEFINE	What is a mineral?
	DESCRIBE	What does the city look like in the winter?
	IDENTIFY	Label the parts of the cell.
	LIST	What are the prime numbers in this set? (1, 3, 4, 6, 7, 16, 17, 20, 21, 23)
	MATCH	Which sentence best describes this equation?
	NAME	Find the name of the river that separates Haiti from the Dominican Republic.
	OBSERVE	Watch the fish in the tanks and record your observations.
	RECALL	Write down what the weather was like last August.
	RECITE	What is the first line of the US Constitution?
	SCAN	Look at the schedule and determine how often buses run.
	SELECT	Which of these words cannot be both a noun and verb?
LEVEL 2 – PROCESS	**ANALYZE**	Determine the additional information you will need to solve this problem.
	COMPARE	How are fish and amphibians similar?
	CONTRAST	Culturally, how were the 60s and 80s different?
	DISTINGUISH	Describe the features that might make you think this building was designed by Frank Lloyd Wright.
	EXPERIMENT	What are some ways you might test your idea?
	EXPLAIN	How has the smartphone changed our society?
	GROUP	How might you separate these 15 minerals into groups?
	MAKE ANALOGIES	How are the systems of a car like that of a cell?
	ORGANIZE	Rearrange this information so it is more easily accessed.
	SEQUENCE	Arrange the following events from earliest to most recent.
LEVEL 3 – OUTPUT (APPLY)	**APPLY**	How does surface tension help a water skipper stay afloat?
	EVALUATE	Decide if the Giant Mudskipper is a fish or amphibian.
	FORECAST	It is a "La Niña" year; would you expect it to be wetter or drier than usual? Why?
	GENERALIZE	Describe the risks for all small companies starting with very little capital.
	HYPOTHESIZE	What will happen to this marshmallow if we put it in a vacuum chamber?
	IMAGINE	What would communication be like if there was no sound?
	JUDGE	Is the Bill of Rights or Declaration of Independence more important for our democracy? Why?
	MODEL	Build a model of a plant cell.
	PREDICT	Considering what you know about macroeconomics, what might happen to US economy if the euro suddenly decreased in value?
	SPECULATE	All copper, halite, and diamond have suddenly disappeared. How will this impact our environment physically and socially?

Promoting Rigor Through Higher-Level Prompts

	POSSIBLE STUDENT TASKS	WHAT DOES LEARNING LOOK LIKE AT THIS LEVEL?
LEVEL 1 – INPUT (GATHER/RECALL)	With a partner, using a graphic organizer, identify, describe, and provide examples of the characteristics of minerals. Label the parts of the cell on the diagram provided. Observe the fish in the tank and record what you see in your Interactive Notebook. Share your observations with your group.	At Level 1 the learner is asked to simply access definitions, principles, and concepts, from short- and long-term memory. This rote-level learning doesn't require any processing or manipulation of the information being accessed. Answers to Level 1 questions are concrete and readily available in the text or resources being referenced. A series of Level 1 questions can be used to guide students in gathering the data they will need to process to answer a follow-up Level 2 or Level 3 question. Answers here are usually short. Often they consist of one or two words or a short sentence.
LEVEL 2 – PROCESS	Working in teams of three, create a Venn Diagram comparing fish to amphibians. In teams of five, review the characteristics of each of the 15 minerals provided and then put them in groups based on similar characteristics. Come up with a name for each group and what makes it unique. Working in pairs, draw a car and label the parts of the car as they would best correspond to the parts of the cell. Consider similarities in form and function of each part as you work.	At Level 2 the learner is asked to access definitions, principles and concepts from both short- and long-term memory and process or manipulate that information to come up with the answer. To answer Level 2 questions, learners must read between the lines and assemble and relate multiple pieces of information to come up with the answer. Answers here usually require at least a sentence or two.
LEVEL 3 – OUTPUT (APPLY)	Watch the video and then review all of the materials provided describing the physiology of the Giant Mudskipper. Decide whether it is a fish or amphibian and elaborate on what factors lead to your decision. You and your team will use the bag of Legos provided to build a plant cell model. Once complete you will label all of the parts and be prepared to report out on each part's function. Write a science fiction story about a world where these minerals suddenly disappear and then read it to a student at the local elementary school.	At Level 3 the learner is asked to apply knowledge of the relationship between disparate concepts in a novel situation. The question should invite the learner to think creatively, using imagination and judgment to arrive at an answer. Answers to Level 3 questions cannot be found in the text or resources being referenced. Often they require the learner to form an opinion, create something new, make a prediction, or generalize a concept and then back it up with evidence. Answers here tend to be longer, ranging from a multiple-sentence paragraph to a full length essay.

INSTRUCTIONAL PRACTICE: Costa's Levels of Thinking

Costa's Levels of Thinking provide a framework for inquiry that helps students ask questions about content, make connections among concepts, and deepen their understanding.

Instructional Objective

- Students will think critically about content through the process of identifying and preparing hierarchical questions based on levels of thinking.

Guiding Questions

- How can I guide students as they identify and prepare Level 1, 2, and 3 questions?
- How can I support students' understanding of the importance of diving deeper into the levels of thinking about content?

Resource

- *Student Resource: Content-Area Level 1, 2, and 3 Questions*

Process

Time to implement: *Varies depending on instructor objectives and learner outcomes; 7–10 minutes*

Prior to using the *Student Resource: Content-Area Level 1, 2, and 3 Questions*, the instructor should identify content-based prompts for the various levels.

- Instruct students to form groups of 2–3.
- Direct groups to complete the table in the *Student Resource: Content-Area Level 1, 2, and 3 Questions* by developing questions at the stated level.
- Conduct a class debrief:
  - *How does engaging information at the various levels of thinking help you dive deeper into content?*
  - *How does this type of thinking prepare you for assessments? Why?*

Content-Area Level 1, 2, and 3 Questions

Complete the table below by writing questions or prompts at the stated level. Note that the stated verbs are suggestions and they do not need to be included in the questions/prompts. The first set has been completed as an example.

Content	**Level 1** complete, count, match, name, define, observe, recite, recall, describe, list, identify	**Level 2** analyze, categorize, explain, classify, compare, contrast, infer, organize, sequence	**Level 3** imagine, plan, evaluate, judge, predict, invent, speculate
International Relations – Levels of Analysis	What are the three levels of analysis in International Relations?	Compare and contrast the individual versus the state levels of analysis.	Speculate how the international system changes based on the different personality types of individuals.

Debrief:

How does engaging with information at the various levels of thinking help you dive deeper into the content?

How does this type of thinking prepare you for assessments? Why?

INSTRUCTIONAL PRACTICE: KWL or KWLA

The KWL strategy is a versatile metacognitive tool developed by Ogle (1986) that invites students to identify what they already *know* about a topic, what they *want* to know about the topic, and later, what they *learned* about the topic.

Research recognizes not only the importance of students' learning but also of having the capacity to extend beyond and apply the knowledge to other situations, both inside and outside of the school setting. Thus, the goal of education is to develop learners who can apply knowledge and understanding to the present and future world (Strauss, 2015). Adding "A" to KWL, the KWLA strategy invites students to contemplate and consider how they can *apply* their new knowledge. By doing so, students are encouraged to extend beyond their learning experiences and apply knowledge and information to other areas that relate not only to their studies but also to their lives beyond postsecondary education.

Background knowledge refers to any knowledge that may be used as a foundation for the construction of new knowledge.

The KWL or KWLA strategy can be used in a variety of situations with various learning goals. For example, it can be utilized as a pre- and post-instruction activity that engages students in activating background knowledge so that they can connect what they already know with what they are learning and applying. Brain research indicates that learning occurs most readily when students connect existing knowledge with new information (Willis, 2013). This tool can also be used as a formative assessment to gauge the impact and students' understanding of a lesson.

Instructional Objectives

Students will:

- Reflect on and identify background knowledge in order to make predictions about content.
- Connect background knowledge with newly acquired information in order to apply new learning.
- Evaluate and metacogitate on the learning process.

Guiding Questions

- How can I use KWL or KWLA as a strategy to activate students' prior knowledge and "prime the pump" for deeper learning of content?
- How can students use KWL or KWLA to make predictions, evaluations, and reflections?

Resource

- *Student Resource: KWLA*

Process

Time to implement: *Varies depending on instructor objectives and learner outcomes; 7–10 minutes*

- Identify a prompt or topic for students to consider.
- Ask students to use the *Student Resource: KWLA* to brainstorm what they already *know* about the topic. Students can brainstorm individually, in pairs, in small groups, or as a class.
- Then, invite students to brainstorm what they *want* to know about the topic.
- Encourage students to save the KWLA resource so they can use it at a later time. After the lesson, invite students to retrieve their *Student Resource: KWLA*. Encourage them to brainstorm what they *learned* about the topic and the learning process. Then, invite them to brainstorm how they can *apply* their knowledge about the topic and the learning process.

KWLA

K	W	L	A
Know	**Want to learn**	**Learned**	**Apply**
What do I already know about this topic?	What do I want to learn about this topic?	What did I learn about this topic? What are the specific details and/or main ideas?	How will I apply what I learned in school or in the world? How does this new learning relate to me and my experiences?

INSTRUCTIONAL PRACTICE: **Brainstorming**

Brainstorming is a common inquiry strategy that allows students to freely generate a variety of ideas in a short period of time. Because there are no right or wrong answers, it is a process that encourages all students to think in a safe environment.

According to Adams (2013), there are four steps to effective brainstorming:

- Understand the problem to be solved.
- Identify the goals of a possible solution, using as much detail as possible.
- Generate solutions individually first, because hearing others' ideas might stifle one's own creativity.
- After the first three steps are completed, move to group brainstorming (if desired).

Brainstorming can be used in a variety of settings for a number of purposes to spark creative and critical thinking. It allows students to think outside the box and delve deeper into content without fear of assessment or judgment.

Instructional Objective

- Students will generate a variety of content-specific ideas in a limited period of time in order to compare diverse ideas and deepen their learning of content.

Guiding Question

- How can I guide my students in a safe, nonjudgmental environment as they think creatively and critically in order to generate ideas about content?

Process

Time to implement: *Varies depending on instructor objectives and learner outcomes; 10–15 minutes*

- Create a prompt for students to think about.
- Review the prompt with the students to ensure that everyone understands it.
- For a short period of time, allow students to think about the prompt and write their thoughts and ideas on a piece of paper.
- After time is called, invite students to contribute their ideas, one at a time. Encourage students to build on each other's ideas. If a student does not want to contribute, they can "pass."
- As students are contributing, a class scribe can capture the ideas.
- Ensure that students are simply contributing their ideas, not discussing, judging, or criticizing.

Variations

- Small groups, rather than the whole class or large groups, can engage in brainstorming.
- Engage students in a Give One, Get One activity. For this strategy, students brainstorm a list of ideas within a specified period of time. After time is called, students form a line. With their brainstormed list in hand, they talk one-on-one with as many other students as they can during the allotted time. While conversing, they exchange ideas—giving an idea and getting an idea. They then move to the next person and repeat the exchange.
- Have students brainstorm individually using sticky notes. Then, in small groups, they can combine and organize their sticky notes.

INSTRUCTIONAL PRACTICE: Philosophical Chairs

Philosophical Chairs is a form of academic discourse that focuses on inquiry. It is a collaborative exercise that engages students in structured dialogue growing out of a deep understanding of a text or other content. While the format is similar to a debate (the activity is built around a prompt that invites students to take contradictory positions), Philosophical Chairs emphasizes dialogue, not competition. The activity encompasses the following goals:

- Critical Thinking and Language Skills: Philosophical Chairs empowers students to learn to clarify, challenge, and evaluate another's point of view and presentation of evidence (Valdez, Carter, & Rodgers, 2013). Students also learn how to use academic language as they articulate ideas and posit questions to connect claims, ideas, and evidence (Bendall, Bollhoefer, & Koilpillai, 2015).
- Building Relational Capacity: Philosophical Chairs also is an opportunity to engage students in team building. It encourages students to take academic risks in a safe environment. Students can appreciate varied perspectives, diverse worldviews, and different personal experiences through the use of Philosophical Chairs. The strategy does more than provide students with a forum to discuss in a debate-like format; it is an opportunity to develop lifelong skills that will be an asset to both their college and career experiences.

Instructional Objective

- Students will develop academic language, argumentation, critical thinking, and inquiry skills while considering various points of view.

Guiding Question

- How can I engage students in structured academic dialogue while encouraging them to keep an open mind, actively listen, and think critically about content?

Resources

- *Student Resource: Pre-Discussion Organizer for Philosophical Chairs*
- *Student Resource: Rules of Engagement for Philosophical Chairs*
- *Student Resource: Philosophical Chairs Report and Written Reflection*

Process

Time to implement: *Varies depending on instructor objectives and learner outcomes; 20–25 minutes*

Philosophical Chairs: Classic Style

- Review the purpose and format of Philosophical Chairs. Philosophical Chairs is based on dialogue that encourages students to explore topics and build on each other's ideas.
- Provide students with a topic for discussion, which can be taken from a reading, a current event or issue, an everyday problem, a statement, an artifact, etc.

- The prompt should be open to at least two interpretations so students can answer: *Do you agree or disagree with...*
- Present a statement or pose a question to the students based on the topic. The statement or question should prompt the students to agree or disagree.
- Define all relevant terms.
- Instruct students to use the *Student Resource: Pre-Discussion Organizer for Philosophical Chairs* to brainstorm and record arguments for and against the statement. Then, instruct them to summarize their position on the statement.
    - Option: Instruct students to perform a quickwrite brainstorm on the statement. They should first brainstorm arguments for and against the statement, then complete the quickwrite with a summary of their position.
- Review the *Student Resource: Rules of Engagement for Philosophical Chairs*. Also have students refer to the *Student Resource: Dialogue vs. Debate for Socratic Seminar* on page 93, which is applicable for Philosophical Chairs discussions.
- Stress to the students that they will engage in dialogue, not debate.
- Encourage students to keep an open mind and to be willing to be swayed by a good argument. A "good argument" means that the speaker presented a compelling point; it does not necessarily mean that you agree with the point.
- On the whiteboard, write the word "Agree" on one end and "Disagree" on the other.
- Invite students to stand. Those who agree with the statement should stand on the "Agree" side. Those who disagree with the statement should stand on the "Disagree" side.
- Choose a neutral facilitator to stand between the two sides. The facilitator will call on students to speak. In addition, the facilitator can paraphrase arguments if clarification is needed.
- To start, instruct the facilitator to recognize someone from the "Agree" side to begin the discussion with a statement in favor of the prompt.
- The facilitator will then recognize someone from the "Disagree" side to deliver an opening statement.
- The facilitator may remind students to paraphrase or summarize the previous speaker's statement before offering their own input. In addition, if it is a text-based discussion, remind students to integrate quotations and sources when making their comments.
- The facilitator should work to ensure participation by as many students as possible and should make sure the conversation is not dominated by a small group of students.
- Encourage students to change sides when a speaker has made a compelling argument.
- Continue the dialogue and movement between sides for a designated time period. Instruct the facilitator to close the discussion when time is up or they feel the discussion has come to an end.
- After time has expired, indicate that each side will have a few minutes to discuss a final comment or point with their group. Then inform students that each side will have a few minutes to state their final point.

Restating the previous student's statement engages students in active listening and critical thought.

One way to ensure the conversation isn't dominated by a small group of students is to institute the "three before me" standard. With this rule, three others must speak before the given student can speak again. The facilitator can also institute a time limit on how long each side has to respond.

Bridging the gap allows pairs of students to debrief and defuse any tension that may have incidentally arisen during the dialogue.

- At the end of the final arguments, instruct students to "bridge the gap" and find a student on the opposite side. Instruct the pairs to each state a final comment and compliment one another's arguments.
- After bridging the gap, engage students in a group debrief of the Philosophical Chairs discussion.
- To engage students as they reflect on the experience, use the *Student Resource: Philosophical Chairs Report and Written Reflection.*

Philosophical Chairs: Jury Style

Philosophical Chairs: Jury Style is a variation on the process of Philosophical Chairs: Classic Style. Educators can scaffold using the jury format, wherein students have three sides from which to choose, rather than the Classic Style, which has two positions.

- Philosophical Chairs: Jury Style begins like the Classic Style. Follow the same steps for topic selection and pre-work as in Philosophical Chairs: Classic Style.
- Arrange the space into three zones: prosecution (agree), defense (disagree), and jury (neutral).
- Instruct students to move to the side that best represents their perspective. Students who are undecided will be the jury (neutral).
- When students are in their groups, instruct the prosecution and defense groups to select two lawyers to represent their position and speak on the group's behalf.
- Instruct the prosecution and defense groups to begin preparation for their opening arguments by sharing their perspectives and the reasoning behind their thoughts.
- Inform the jury members that they will be taking notes on the discussion.
- Ask the prosecution lawyers to present their opening arguments first. Tell the defense lawyers that they will present their opening arguments after the prosecution.
- Instruct the non-speaking prosecution and defense group members to record what is said and remember any arguments that were not shared but are important. During deliberations, the notes will be shared with their respective lawyers.
- Inform the jury that they will direct a question to each side to be answered first by the prosecution, then by the defense.
- After the questions from the jury are answered, the first round of Philosophical Chairs: Jury Style is complete.

To encourage greater participation, the prosecution and defense groups can select new lawyers as they prepare for the second round.

- Instruct groups to confer for approximately 3 minutes. During that time, encourage groups to listen to the notes from the non-speaking group members, debrief, and begin preparations for the next round.
- Repeat the process for the second round. Depending on the instructor objectives and time frame, repeat for multiple rounds.
- Following the final round, allow deliberation time. During that time, invite students to debrief and begin preparations for final arguments, which are conducted in the same manner as in the Classic Style.
- After the final arguments, instruct the jury group to deliberate and announce the side with the stronger argument.
- After the announcement, debrief the process and content as a class.

Philosophical Chairs: Speed Style

Philosophical Chairs: Speed Style is a fast-paced, shortened variation on the discussion strategy behind Philosophical Chairs: Classic Style.

- Philosophical Chairs: Speed Style begins like the Classic Style. Follow the same steps for pre-work as in Philosophical Chairs: Classic Style.
- Provide students with 3–5 minutes to individually develop ideas for central statements. Instruct them to write each idea on a separate piece of paper.
- Collect all statements. Then randomly select one statement, or read all statements to the class and have students vote on the statement they would like to discuss.
- Announce the statement to the class. Define the sides (agree/disagree, yes/no, etc.).
- Instruct students to move to the side they most agree with.
- Set a timer for 3–5 minutes, and instruct the students to start debating the statement.
- Due to the time constraint, instruct students to limit their contributions to 30 seconds or less.
- When the timer goes off, select another topic and start another round. Depending on the objectives and time frame, repeat for multiple rounds.
- Following the rounds of discussion, debrief as a class.

Philosophical Chairs: Four-Corners Style

Philosophical Chairs: Four-Corners Style is a variation of Philosophical Chairs: Classic Style that can be used to offer more answers or options for responding to the prompt.

- Philosophical Chairs: Four-Corners Style begins like the Classic Style. Follow the same steps for pre-work as in Philosophical Chairs: Classic Style.
- Provide students with 3–5 minutes to individually develop ideas for central statements. Instruct them to write each idea on a separate piece of paper.
- Collect all statements. Then randomly select one statement, or read all statements to the class and have students vote on the statement they would like to discuss.
- Announce the statement to the class. Define the positions, which will each correspond to a corner of the room (agree, strongly agree, disagree, strongly disagree).
- Instruct students to move to the corner they most identify with.
- Set a timer for 3–5 minutes, and instruct the students to start debating the statement.
- Due to the time constraint, instruct students to limit their contributions to 30 seconds or less.
- When the timer goes off, select another topic and start another round. Depending on the objectives and time frame, repeat for multiple rounds.
- Following the rounds of discussion, debrief as a class.

Pre-Discussion Organizer for Philosophical Chairs

Name: _____ **Date:** _____

Record the central statement that is presented for discussion and list as many reasons as possible for why someone would agree or disagree with it. After listing these reasons, summarize your current position on the central statement using complete sentences.

Central Statement:	
Agree	**Disagree**
Summarize your current position on the central statement above.	

Rules of Engagement for Philosophical Chairs

- Maintain your understanding of the prompt or central statement throughout the activity.
- Actively listen to the person who is speaking.
- Wait for the instructor or facilitator to recognize you before you speak; only one person speaks at a time.
- Seek to understand the opposing speaker's point of view, even if you do not agree with them.
- Briefly summarize the previous speaker's argument before you make your response.
- Contribute your own thoughts, offering your reasons as succinctly as possible.
- Respond to statements and ideas only, not to the person giving them.
- Change your mind about the central statement as new information or reasoning is presented.
- Refrain from having side conversations during the debate portion of the activity.
- Move to the opposite side or to the undecided position if your thinking grows and changes as a result of convincing arguments from the opposing side.
- Support the discussion by maintaining order and contributing constructive comments.

Philosophical Chairs Report and Written Reflection

Provide a written reflection of the Philosophical Chairs discussion that you heard in class. Include as many of the following points as possible in your reflection.

What central statement was discussed?

What were the arguments for and against the statement?

What was your original position? What were your reasons for this position?

How many times did you change your position?

If you changed your mind during the discussion, explain why. What arguments persuaded you to do so?

If you did not change your mind during the discussion, which arguments do you believe were the strongest counterpoints to the opposing statements? Why?

How open-minded were you as you listened to other people speak?

___ Mostly open-minded

___ Partially open-minded

___ Not very open-minded

What was your ending position? What was the reasoning behind your thinking?

What was the most frustrating part of the discussion?

What was the most memorable part of the discussion?

Which statements had the most effective logical appeal and emotional appeal? Why?

What conclusions can you draw about how you form your beliefs, based on today's discussion?

What would you change about your participation in today's discussion? Do you wish you had said something that you did not? Did you think about changing sides, but did not? Explain.

INSTRUCTIONAL PRACTICE: **Socratic Seminar**

Socratic Seminar is based on the Greek philosopher Socrates' belief that encouraging students to think for themselves was more important than filling their heads with "the right answers." The Socratic method of teaching is a form of inquiry-based discourse grounded in asking and answering an evolving series of questions. The questioning is designed to spark inquiry and engage students in critical thought. Guiding students as they engage in this type of dialogue promotes thinking skills when students are able to see that issues are often more complex than they appear. The process affords students the opportunity to understand deeper dimensions of a text, share ideas, and create real-world connections to the text. Students are encouraged to take academic risks as they search for answers together. Similar to Philosophical Chairs, Socratic Seminar may inspire students to broaden and deepen their views based on the questions and thoughts of their peers.

There are many ways to arrange the physical environment for a Socratic Seminar, three of which are discussed in this section: Classic, Fishbowl (also called Inner/Outer Circle), and Researcher/Research Assistant (also called Pilot/Co-Pilot). To view illustrations of these classroom set-ups, refer to the *Instructor Resource: Sample Class Arrangements for Socratic Seminar.*

Instructional Objective

- Students will strengthen their problem-solving abilities and improve their critical thinking skills by using rigorous inquiry-based dialogue to develop a deeper understanding of complex texts.

Guiding Questions

- How do I utilize inquiry-based discussion to engage students in critical thought?
- How do I support students while they ponder different opinions, perspectives, and approaches to content?

Resources

- *Instructor Resource: Sample Class Arrangements for Socratic Seminar*
- *Instructor Resource: The Elements of Socratic Seminar*
- *Student Resource: Rules of Engagement for Socratic Seminar*
- *Student Resource: Dialogue vs. Debate for Socratic Seminar*
- *Student Resource: Double-Entry Journal for Socratic Seminar*
- *Student Resource: The Roles and Responsibilities of the Socratic Seminar Participant*
- *Student Resource: Academic Language Scripts for Socratic Seminar*
- *Student Resource: Socratic Seminar Debrief and Reflection*

Process

Time to implement: *Varies depending on instructor objectives and learner outcomes; 30–45 minutes*

Socratic Seminar: Classic Style

Socratic Seminar is an inquiry-based discourse that involves asking and answering questions.

It is important to choose a text for the Socratic Seminar carefully. The text should be rich with ideas that will spark meaningful conversation.

- Select a text, issue, or artifact to use as the subject of the Socratic Seminar. A text could be a visual, a painting, a song, a poem, a film, or a mathematical or scientific problem.
- Provide students with an overview of the purpose of the Socratic Seminar and the expectations for participants using the *Instructor Resource: The Elements of Socratic Seminar* and the *Student Resource: Rules of Engagement for Socratic Seminars.*
- Summarize for students the difference between dialogue and debate using the *Student Resource: Dialogue vs. Debate for Socratic Seminar.*
- Instruct students to read the text. Remind them to strive to understand the purpose of the reading.
- Invite students to generate at least two higher-level questions that they "wonder" about—encourage them to dive deeper into the meaning of the text.
- In addition, encourage students to use the *Student Resource: Double-Entry Journal for Socratic Seminar* as they think about the text. In the left column, students should write a statement or passage that they draw meaning from. Then, in the right column, students should respond to that statement or passage. The double-entry journal can be used to spark discussion and provide an easy reference for evidentiary support.
- Invite students to arrange their chairs in a circle that is big enough that they can see everyone. Instruct students to bring all necessary materials with them to the circle (including, but not limited to, the text and questions).
- The Socratic Seminar can be opened in one of two ways:
  - Option 1: The Seminar leader (who is also seated in the circle) can pose an opening question. (Refer to the *Instructor Resource: The Elements of Socratic Seminar* for information on selecting the leader.)
  - Option 2: In a Whip-Around, invite each student to share one of their higher-level questions. After hearing all the questions, the Seminar leader or another student can choose one of the questions to start the Socratic discussion.

Whip-Around is a strategy used to activate prior knowledge and quickly process information. Going around the group sequentially, each student comments on a question or discussion prompt. A Whip-Around can close the Socratic Seminar, allowing each student to provide a closing remark that summarizes their thinking.

As a facilitator, it is wise to have an extra question on hand in case the group's questions fail to address the level of discourse intended.

- Invite students to begin the dialogue with participants responding to the opening question. The discussion can involve asking clarifying questions and posing responses. Students can add onto the clarifying questions and responses with their own thoughts and ideas. Encourage students to use the *Student Resource: Academic Language Scripts for Socratic Seminar* as they build on each other's thoughts.
- Continue the Seminar until all questions have been asked, clarified, and answered or time is called. It is important to end the Seminar on a high-interest note so students maintain engagement with the topic.
- After the discussion has concluded, conduct a class debrief.
- Following the class debrief, encourage individual metacognitive reflection. Invite students to use the *Student Resource: Socratic Seminar Debrief and Reflection* to guide their reflective thinking.

Socratic Seminar: Fishbowl Style

Socratic Seminar: Fishbowl Style (also called Inner/Outer Circle) is a variation of Socratic Seminar: Classic Style that can be used to foster comfort with discourse and exploration as half the students participate through active listening and note-taking rather than verbal engagement.

- Fishbowl Style begins like the Classic Style. Follow the same steps for topic selection and pre-work as in Socratic Seminar: Classic Style.
- Instruct students to pair with a partner. Ask the pairs to decide who is "Student A" and who is "Student B."
- Rather than setting up in one large circle, arrange the chairs into two circles with an equal number of seats. Decide which students ("A" or "B") will be in the inner circle and which will be in the outer circle.
- Instruct students in the outer circle to sit in a seat where they can see the face of their partner in the inner circle. Students cannot sit directly behind their partner.
- Review elements of the text and prompt with the students.
- The discussion is conducted in the same manner as the Socratic Seminar: Classic Style, except that the inner circle of students participate in the oral discussion while the outer circle of students actively listen and take notes. The instructor can provide discussion targets for the outer circle to consider.
- After the inner circle discusses for a period of time, the instructor can invite students to switch chairs so that the students who were originally in the outer circle have a chance to participate in the inner circle.
- When the discussion is complete, have all students participate in a group debrief and individual reflection.

Socratic Seminar: Researcher/Research Assistant Style

Socratic Seminar: Researcher/Research Assistant Style is a variation of Socratic Seminar: Classic Style that can be used to foster comfort with discussion and exploration by encouraging students to actively listen, take notes, and then pass their notes to their speaking partner.

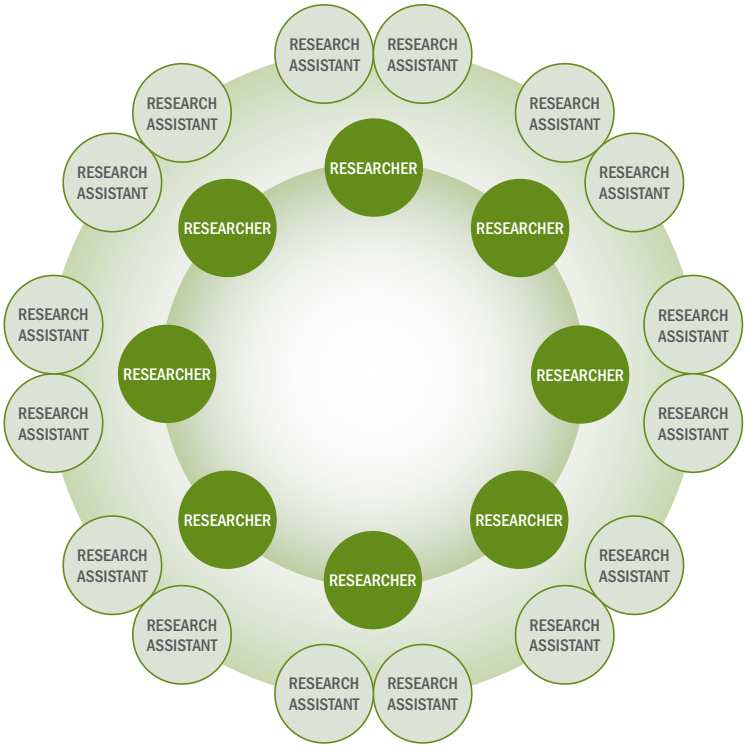
- Researcher/Research Assistant Style begins like the Classic Style. Follow the same steps for topic selection and pre-work as in Socratic Seminar: Classic Style.
- Before setting up the chairs in a circle, instruct students to form triads. In their triad, the students will select one "researcher" who will place their chair in the inner circle. The other two students will be "research assistants" and will place their chairs behind the researcher.
- The discussion is conducted in the same manner as Socratic Seminar: Classic Style, except that the inner circle of "researchers" participate in the oral discussion.
- The "research assistants" actively listen and take notes. The research assistants can pass notes to the researcher to help guide the discussion by adding questions, comments, and clarifying points.
- After discussion has taken place for a while, encourage the triads to talk among themselves. At this point, the researcher can trade places with one of the research assistants if desired.
- When the discussion is complete, have all students participate in a group debrief and individual reflection.

Sample Class Arrangements for Socratic Seminar

One Large Seminar

Fishbowl or Inner/Outer Circle

Researcher/Research Assistant or Pilot/Co-Pilot



Simultaneous

The Elements of Socratic Seminar

A productive, engaging Socratic Seminar consists of four interdependent elements: (1) the text, (2) the questions raised, (3) the Socratic Seminar leader, and (4) the participants. A closer look at each of these elements will help explain the unique characteristics of a Socratic Seminar.

The Text

Socratic Seminar texts are chosen for their richness in ideas, issues, and values, in addition to their ability to stimulate extended, thoughtful dialogue. A Socratic Seminar text can be drawn from readings in literature, history, science, math, health, or philosophy; the "text" may also be drawn from music, works of art, photography, video, or other media. A good text raises important questions in the participants' minds—questions to which there are no right or wrong answers. At the end of a successful Socratic Seminar, participants can often leave with more questions than they brought.

The Questions

A Socratic Seminar opens with a question either posed by the leader or solicited from participants as they acquire more Seminar experience. A strong opening question has no right answer; instead, it reflects a genuine curiosity on the part of the questioner. A good opening question leads participants back to the text as they speculate, evaluate, define, and clarify the issues involved. Responses to the opening question often generate new questions from the leader and participants, inevitably inspiring more responses. In this way, the line of inquiry during a Socratic Seminar evolves on the spot, rather than being pre-determined by the leader.

The Leader

In a Socratic Seminar, the leader can play a dual role as facilitator and participant. The Seminar leader consciously demonstrates a thoughtful exploration of the ideas in the text by keeping the discussion focused on the text, asking follow-up questions, helping participants clarify their positions when the discussion becomes confused, and involving reluctant participants while restraining their more vocal peers.

As a Seminar participant, the leader actively engages in the group's exploration of the text. To do this effectively, the leader must know the text well enough to anticipate various interpretations and recognize important possibilities in each. The leader must also exercise patience in allowing participants' understandings to evolve as the discussion develops. The leader must also be willing to help participants explore non-traditional insights and unexpected interpretations.

Selecting the Socratic Seminar leader can be done through a random or volunteer process, provided that students have the capacity to manage their peers and facilitate a productive discussion.

The Participants

Socratic Seminar participants share the responsibility with the leader for the quality of the Seminar. Rewarding Seminars occur when participants process the text closely in advance, listen actively to the discussion, share their ideas and questions in response to the ideas and questions of others, and search for evidence in the text to support their ideas or their peers' ideas. Participants acquire effective Seminar behaviors through participating in Seminars and reflecting on them afterward.

After each Seminar, the lead and participants discuss the experience and identify ways of improving the Seminar process. Before each new Seminar, the leader also offers coaching and practice in specific habits of mind that improve reading, listening, thinking, and discussing. Eventually, when participants realize that the leader is not looking for the "right" answer, but is instead encouraging them to think out loud and to openly exchange ideas, they discover the excitement of exploring important issues through shared inquiry. This excitement creates willing participants eager to examine ideas in a rigorous, thoughtful manner.

Rules of Engagement for Socratic Seminar

- Be prepared to participate and ask good questions. The quality of the Socratic Seminar is diminished when participants speak without preparation.
- Show respect for differing ideas, thoughts, and values—no put-downs or sarcasm.
- Allow each speaker enough time to begin and finish his or her thoughts—don't interrupt.
- Involve others in the discussion, and ask them to elaborate on their responses.
- Build on what others say—ask questions to probe deeper, clarify, paraphrase, add to, and synthesize a variety of different views in your own summary.
- Use your best active listening skills—nod, make eye contact, lean forward, provide feedback, and listen carefully to others.
- Participate openly and keep your mind open to new ideas and possibilities.
- Refer to the text often, and give evidence and examples to support your response. Discuss the ideas of the text, not each other's opinions or personal experiences.
- Take notes about important points that you want to remember or new questions that you want to ask.

Dialogue vs. Debate for Socratic Seminar

The best Socratic Seminars are those in which something new and unexpected is discovered. This happens when the Socratic Seminar is approached as a collective search for information or exploration of ideas through dialogue, rather than a defense of opinions through debate.

Dialogue	Debate
Dialogue is collaborative, with multiple sides working toward a shared understanding.	Debate is oppositional, with two opposing sides trying to prove each other wrong.
In dialogue, one listens to understand, to make meaning, and to find common ground.	In debate, one listens to find flaws, to spot differences, and to counter arguments.
Dialogue broadens, and possibly changes, a participant's point of view.	Debate affirms a participant's point of view.
Dialogue thrives on an open-minded attitude and openness to being wrong and to changing.	Debate fosters a closed-minded attitude and a determination to be right and defends assumptions as truth.
In dialogue, one submits one's best thinking, expecting that other people's reflections will help improve it, rather than threaten it.	In debate, one submits one's best thinking and defends it against challenges to show that it is right.
Dialogue calls for temporarily suspending one's beliefs.	Debate calls for investing wholeheartedly in one's beliefs.
In dialogue, one searches for strengths in all positions.	In debate, one searches for weaknesses in opposing positions.
Dialogue respects all of the other participants and seeks not to alienate or offend.	Debate rebuts contrary positions and may belittle or deprecate other participants.
Dialogue assumes that many people have pieces of answers and that cooperation can lead to workable solutions.	Debate assumes that someone already has a single right answer.
Dialogue remains open-ended.	Debate demands a conclusion and a winner.

Double-Entry Journal for Socratic Seminar

Identify specific lines or passages from the prompt/text and respond to those passages in order to understand their meaning and significance.

Statement ***From article/text/document or problem***	**Response** ***Initial thoughts about the statement***

The Roles and Responsibilities of the Socratic Seminar Participant

Before the Seminar

- Read the text or consider the artifact/prompt carefully.
- Use highlighters to mark crucial portions of the text.
- Make notes in the margins.
- Look for places where the author is stating their views, arguing for them, or raising questions.
- Write Level 2 or 3 questions.
- Make connections between parts of the text by using your margin notes.
- Think about what you have read and how you understand it.
- Make connections between the ideas in the text and what you know from your life experiences.

During the Seminar

- Be prepared to participate; the quality of the seminar is diminished when participants speak without preparation, or do not participate at all.
- When appropriate, refer to the text; a seminar is not a test of memory.
- Ask for clarification when you are confused.
- Take turns speaking instead of raising hands.
- Listen carefully and actively to other participants.
- Speak clearly so all can hear you.
- Address other participants, not the seminar leader.
- Discuss the ideas of the text, not each other's opinions.
- Show respect for differing ideas, thoughts, and values.
- Give evidence and examples to support your responses.
- Help fellow participants clarify questions and responses.
- Keep your mind open to new ideas and possibilities.

After the Seminar

- Reflect on your participation as an individual and the group as a whole.
- Discuss with your group parts of the seminar you think went well and which skills you and your fellow participants still need to improve.
- Use writing to think about both the process and the content of the seminar.
- Be prepared to help set goals for improvement in the next seminar.

Academic Language Scripts for Socratic Seminar

Clarifying

- Could you repeat that?
- Could you give us an example of that?
- I have a question about that: …?
- Could you please explain what _____ means?
- Would you mind repeating that?
- I'm not sure I understood that. Could you please give us another example?
- Would you mind going over the instructions for us again?
- So, do you mean…?
- What did you mean when you said…?
- Are you sure that…?
- I think what _____ is trying to say is….
- Let me see if I understand you. Do you mean _____ or _____?
- Thank you for your comment. Can you cite for us where in the text you found your information?

Probing for Higher-Level Thinking

- What examples do you have of…?
- Where in the text can we find…?
- I understand…, but I wonder about….
- How does this idea connect to…?
- If _____ is true, then…?
- What would happen if _____?
- Do you agree or disagree with their statement? Why?
- What is another way to look at it?
- How are ____ and _____ similar?
- Why is ____ important?

Building on What Others Say

- I agree with what _____ said because….
- You bring up an interesting point, and I also think….
- That's an interesting idea. I wonder…? I think… Do you think…?
- I thought about that also and I'm wondering why…?
- I hadn't thought of that before. You make me wonder if…? Do you think…?
- _____ said that… I agree and also think….
- Based on the ideas from _____, _____ and _____, it seems like we all think that….

Academic Language Scripts for Socratic Seminar

Expressing an Opinion

- I think/believe/predict/imagine that… What do you think?
- In my opinion….
- It seems to me that….
- Not everyone will agree with me, but….

Interrupting

- Excuse me, but… (I don't understand.)
- Sorry for interrupting, but… (I missed what you said.)
- May I interrupt for a moment?
- May I add something here?

Disagreeing

- I don't really agree with you because….
- I see it another way. I think….
- My idea is slightly different from yours. I believe that… I think that….
- I have a different interpretation than you….

Inviting Others into the Dialogue

- Does anyone agree/disagree?
- What gaps do you see in my reasoning?
- What different conclusions do you have?
- _____ (name), what do you think?
- I wonder what _____ thinks?
- Who has another idea/question/interpretation?
- _____ (name), what did you understand about what _____ said?
- We haven't heard from many people in the group. Could someone new offer an idea or question?

Offering a Suggestion/Redirecting the Seminar

- We can't seem to find the connection to the text. Could you point out what and where that connection is?
- We all want to remember that our goal is a flow of questions and comments and ideas to be shared, rather than a debate to be won. How could your comment be rephrased to reflect our goal?
- Maybe you/we could….
- Here's something we/you might try: ….
- What if we… ?
- We seem to be having a debate instead of a dialogue; can we….
- Who has another perspective to offer that will help us re-focus the conversation?
- Let's look at page _____ and see what we think about….

Socratic Seminar Debrief and Reflection

Taking time after the Socratic Seminar to critique, debrief, and evaluate the discussion is critical. The following questions are designed to help participants and observers reflect on the content of the seminar dialogue. They may be used as a framework for discussion or as a written debrief or reflection.

1. What was the best point made during the discussion?

2. With which ideas did I agree?

3. With which ideas did I disagree?

4. What questions were left unanswered?

5. What did I contribute to the discussion?

6. What do I wish I had said during the discussion?

7. Who were the top three contributors to the discussion?.

8. What is my overall evaluation of the Socratic Seminar?

Post-Reading Reflection Questions

- What have I learned about inquiry-based learning and how it impacts student success?
- What challenges do my students face as they dive into content? What inquiry-based instructional practices can I utilize to encourage students to broaden and deepen their learning?
- How will I employ inquiry to foster and support students' natural curiosity about content? How will this aid in the development and application of critical thinking and problem-solving skills?
- What are my initial steps as I engage students in using inquiry to learn content and reflect on their thinking? How can I build on these processes as I informally assess students' knowledge of content?

Conclusion

For the most part, inquiry has been an assumed academic tenet in the higher education classroom. This chapter has delineated several instructional practices that move students to the new "levels of thinking" proposed by Arthur Costa. Rather than having students maintain a focus on text-based or process-oriented connections to content, this chapter provides instructors with a set of teaching and learning routines that support the development of inquiry at a higher level of thinking. Providing students with opportunities to access and process information is fundamental to building knowledge. Inquiry is fundamental to rigorous teaching and deep learning.

In summary, as Exline (2004) stated, "Inquiry implies involvement that leads to understanding." Inquiry goes beyond questioning; it is an *attitude* that empowers students to think critically as they seek resolutions to questions and issues while simultaneously constructing new knowledge. In this chapter, inquiry-based instructional practices have been framed to honor this important philosophy.

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CHAPTER FOUR

Collaboration

Visit the *AVID for Higher Education: High Engagement Practices for Teaching and Learning* webpage
on MyAVID for additional materials and resources.

CHAPTER **Introduction**

Collaboration is an important 21st century skill. CEO Lynn Power (2016) noted that "as business continues to globalize and our industry becomes increasingly complex, lots of people are talking about collaboration." According to Power, "collaboration isn't a buzzword or a fad; it's an essential part of how we need to operate to be successful in today's world." Because of its importance, it is necessary to intentionally define collaboration and distinguish it from cooperation.

Collaboration involves two or more people working together to reach a common goal. *Collaborative learning* is a method of instruction wherein small groups of students at various performance levels work together toward a common objective. According to Gokhale (1995), in collaborative learning, "the students are responsible for one another's learning as well as their own. Thus, the success of one student helps other students to be successful" (p. 22).

In contrast, cooperation has been defined as the "division of labor among participants" where each person is responsible for solving their part of the problem (Power, 2016). In other words, cooperation involves individuals working together to enable each person to reach their own goal, whereas collaboration provides an arena for individuals to work together and leverage each person's time, energy, and resources in order to reach a collective goal.

Why focus on collaboration?

Providing students with the opportunity to work with peers from varying backgrounds and different experiences bolsters individual growth. Lev Vygotsky, called the "father of social learning," was considered a rebel in the education field for his groundbreaking thoughts on collaborative learning. He found that if a student is guided by a capable peer's example and support, that student will gradually develop the ability to perform the task alone. Vygotsky coined the phrase "zone of proximal development" to represent the area where the student cannot initially perform tasks alone but is able to gradually accomplish those tasks with support and guidance.

As Vygotsky indicated, collaboration is integral to growth in students' learning. It deepens students' learning experiences as it exposes them to diverse perspectives and opinions as well as different learning and working styles. This exposure can accelerate learning, foster critical thinking, deepen understanding, and broaden perspectives (Totten, Sills, Digby, & Russ, 1991; Bruner, 1985).

Furthermore, research has indicated that cooperative learning teams achieve higher levels of thinking and preserve information for longer periods of time than students working individually (Johnson & Johnson, 1986). When students are discussing, clarifying ideas, and evaluating others' thoughts, information is used and moved into long-term memory (Clifford, n.d.). They learn from each other's "scholarship, skills, and

experiences" (Gokhale, 1995, p. 28). Support from peers enables students to internalize external knowledge and develop their critical thinking skills, which empower intellectual functioning.

Along with improving higher-level intellectual functioning, collaboration helps students understand information and analyze, evaluate, synthesize, and apply it—important 21st century skills that are different from the "traditional education" of memorizing facts (Klemm, 1994, as cited in Laal, Khattami-Kermanshahi, & Laal, 2014, p. 4060). In today's society, the trend toward collaboration and building skills through collaborative work is critical as the need builds for individuals to think and work together (Austin, 2000, and Welch, 1998, as cited in Laal, Khattami-Kermanshahi, & Laal, 2014, p. 4057).

What learning processes does collaboration support?

Collaboration is at the heart of WICOR and the AVID philosophy. It is a critical component of active learning. Collaboration is teamwork with shared responsibility; it involves sharing of ideas, information, and opinions. Collaborating empowers students to work together toward a common goal while developing positive interdependence. It allows students to grow and learn from each other, support one another, and take academic risks together. According to Bendall, Bollhoefer, and Koilpillai (2015), collaborative structures "are designed to teach students to take responsibility for their own work and the learning of their classmates, as well as develop oral language, listening, writing, reading, self-advocacy, leadership, and higher-level thinking skills, while achieving specific learning goals" (p. 147). Johnson and Johnson (1999) also asserted that collaboration is the realization of "positive interdependence" that fosters interaction, encourages accountability, develops teamwork, and supports processing and self-assessment.

How will infusing AVID support collaboration?

Educators play a critical role in fostering the collaborative process (Gokhale, 1995). The collaborative teaching style involves a shift from teacher-centered to learner-centered learning (Laal, Khattami-Kermanshahi, & Laal, 2014). In collaborative learning, instructors act as facilitators or "skilled instructors of intellectual experiences for students," not mere transmitters of information (Smith & MacGregor, 1992, as cited in Laal, Khattami-Kermanshahi, & Laal, 2014; Gokhale, 1995). By making the shift from teacher-centered to learner-centered learning, a hallmark of AVID's philosophy, the instructor intentionally and strategically creates and manages "meaningful learning experiences and [stimulates] students' thinking through real-world problems" (Gokhale, 1995, p. 30).

As educators create meaningful learning experiences, it is necessary to explicitly teach collaboration skills, as many students may not know how to work with others in an effective, appropriate, and respectful manner. According to Johnson, Johnson, and Smith (2006), there are five critical elements of a collaborative learning environment:

1. **Positive interdependence:** The success of individuals is linked to the success of the group; individuals succeed to the extent that the group succeeds. Students are motivated to help each other accomplish group goals.
2. **Promote interaction:** Students actively help and support each other. Members share resources, support each other, and encourage each other's efforts to learn.
3. **Individual and group accountability:** The group is responsible for achieving its goals. Each group member is accountable for contributing their own share. Students may be assessed separately and as a group.
4. **Development of teamwork skills:** Students learn academic content as well as interpersonal and small-group skills that are necessary to function effectively as a team. Teamwork skills should be taught just as intentionally and precicely as academic skills are taught.
5. **Group processing:** Students should learn to evaluate their group's effectiveness. They need to process what is working and what is not. After reflecting, they need to make decisions about how and when to change.

As noted, creating a collaborative learning environment is an intentional process. It is important for educators to build mutual trust in the learning environment so students feel comfortable learning and taking academic risks in a safe setting.

Educator Outcomes

After reading this chapter, educators will be able to:

- Structure opportunities for collaboration adhering to the five elements of effective collaboration for deeper understanding of content.
- Empower all students in their quest for knowledge and deeper understanding of concepts by utilizing and applying collaborative strategies within instructional practices.
- Understand the power of collaborative work as it relates to college and career success.

Pre-Reading Reflection Questions

- What collaborative strategies do I already utilize to encourage students as they work toward a common goal?
- How can I employ collaboration strategies to encourage students to use critical thinking skills and reflect on their thinking in order to fully engage in the learning process?
- How can I leverage collaboration strategies to empower students to work together as they dive deeply into content, their fields of study, and ultimately their careers?

INSTRUCTIONAL PRACTICES: Think–Pair–Share

Think–Pair–Share is a collaborative activity that provides an opportunity for differentiated instruction. It gives students a structured framework and devoted time to think about a topic, enabling them to reflect on ideas before speaking. This framework can be formal or informal, depending on the instructor's objectives. When asked to share, students discuss their thinking with a partner. This safe sharing environment empowers students to articulate their own ideas, identify similarities and differences with their partners' thinking, express rationale for their ideas, and build consensus through active listening. Furthermore, it enables students to use academic language in the safety of a small group. Research has indicated that this strategy can increase students' sense of involvement in learning as well as their willingness to engage in a larger group discussion (Simon, n.d.-b).

Think–Pair–Share is an adaptable strategy that can be varied based on an instructor's goals and desired outcomes. It is easy to use in a planned lesson or as a spark for impromptu discussions. This strategy builds critical thinking skills as it fosters conceptual understanding of content, encourages students to filter information and reach conclusions, and engages them as they consider other points of view.

Instructional Objectives

Students will:

- Examine a question or prompt and create a response.
- Be able to articulate a response to a partner.
- Consider similarities and differences with a partner.

Guiding Question

- How can I encourage my students to use academic language and active listening as they work with a partner to address the goals and objectives I have set forth in the prompt?

Process

Time to implement: *Varies depending on instructor objectives and learner outcomes; 5–7 minutes*

Classic Think–Pair–Share

Prompts are statements followed by questions. Providing an intentional prompt that connects to the learning objective is important, as it guides the students' responses.

- Share a question or prompt with the class.
- Ask students to individually consider their response to the question or prompt.
- Invite students to find a partner.
- Ask partners to share their responses with each other. Each partner takes a turn speaking while the other partner actively listens.
- When time is called, ask partners to switch roles.
- To debrief, facilitate a larger class discussion.

Think–Pair–Share Squared

- Share a question or prompt with the class.
- Ask students to individually consider their response to the question or prompt.
- Invite students to find a partner.
- Ask partners to share their responses with each other. Each partner takes a turn speaking while the other partner actively listens.
- When time is called, ask partners to switch roles.
- After both partners have shared, invite the pairs to find another set of students. Then ask the students, now in their groups of four, to take turns speaking and actively listening.
- To debrief, invite the groups to share their ideas with the class.

Think–Write–Pair–Share (also called Think–Ink–Pair–Share)

- Share a question or prompt with the class.
- Instruct students to individually respond to the prompt in a quickwrite.
- Invite students to find a partner.
- Ask partners to share their responses with each other. Each partner takes a turn speaking while the other partner actively listens.
- When time is called, ask partners to switch roles.
- To debrief, facilitate a larger class discussion.

INSTRUCTIONAL PRACTICE: Give One, Get One

Give One, Get One is a collaborative exercise that allows students to generate ideas and dive deeper into the nuances of content. The purpose of the strategy is to help students generate as many responses to a prompt as they can, then work together to unravel complexities of the content.

Instructional Objective

- Students will explore the depth and breadth of a topic through collaboration.

Guiding Question

- How can I encourage students to collaborate to dive deeply into content?

Process

Time to implement: *Varies depending on instructor objectives and learner outcomes; 7–10 minutes*

- Assign a learning prompt to students.
- Instruct students to respond to the prompt by individually generating a list of ideas on a sheet of paper.
- After allowing time for students to create their lists, instruct them to draw a line across their paper under their last idea.
- Tell the students to stand with their lists and find a partner.
    - Invite students to exchange and discuss one idea from their list with their partner and write the new idea below the line they drew on their paper.
- After students exchange one idea each, direct them to find new partners and exchange another idea. After they write the idea down, ask the partners to find new partners.
- Repeat the process until the end of the allotted sharing time.
- After the exchange process is complete, invite students to discuss as a class. Create a class list, compiling all responses on chart paper, a whiteboard, or a shared class document.
- To debrief, ask students:
    - *What did you learn about the prompt/topic/subject?*
    - *What did you learn from sharing your responses?*

INSTRUCTIONAL PRACTICE: Helping Trios

Helping Trios allows students to collaboratively address a problem and work together toward a solution. This exercise provides students with the opportunity to engage in a reciprocal conversation that develops speaking and listening skills while they learn to provide feedback and respond to others' feedback.

Instructional Objective

- Student will develop active listening and speaking skills while providing and building on others' ideas and feedback.

Guiding Question

- How can I support students as they face a problem and work together toward a solution?

Process

Time to implement: *Varies depending on instructor objectives and learner outcomes; 10–15 minutes*

- Predetermine the topic of discussion.
- Instruct students to form groups of three, and have them decide who is student "A," "B," and "C."
- Introduce the topic and inform students that they will be addressing specific issues within the content. Allow students several minutes to think about the issues related to the topic.
- Invite student A to discuss the issue for the first 2 minutes. Students B and C should employ active listening skills during this time.
- After time is called, invite students B and C to provide A with feedback for 2 minutes while student A actively listens.
- After time is called, all three students will engage in open dialogue for 2 minutes.
- When time is called, repeat the process with student B discussing the issue while students A and C actively listen and then provide feedback.
- Repeat the process a final time with student C discussing the issue while students A and B actively listen and then provide feedback.
- Debrief the exercise as a class.

This strategy is also sometimes called "Parallel Line-Ups" or "Speed Dating."

INSTRUCTIONAL PRACTICE: Inside/Outside Circles

Inside/Outside Circles (Kagan, 1994) is a fast-paced, lively strategy that provides students with the opportunity to consider a prompt with a variety of partners. This type of collaboration can be used when students are starting to explore a topic, deepening their understanding of an issue, or summarizing their learning in a culminating activity.

Instructional Objective

- Students will explore issues and share ideas with many different partners.

Guiding Question

- How can I engage students in a fast-paced, collaborative activity to encourage them to think about a prompt?

Process

Time to implement: *Varies depending on instructor objectives and learner outcomes; 12–15 minutes*

- Predetermine a prompt for the activity.
- Divide the class into two equal groups.
- Direct one group to form a circle, then direct the other group to form an outer circle around the inner circle. Instruct students to stand directly across from another student and face that person.
- Present the prompt. Instruct students to discuss the prompt with the partner facing them until time is called.
- When time expires, tell the inner circle not to move. Instruct the outer circle to move three partners to the right.
- Instruct the new partner groups to discuss the prompt.
- After time expires, again tell the inner circle not to move, and instruct the outer circle to move three partners to the right.
- As before, instruct the new partner groups to discuss the prompt.
- Repeat this process until the students have fully discussed the prompt and considered various perspectives or reached a new understanding.

INSTRUCTIONAL PRACTICE: Four Corners

Four Corners: Novel Ideas Only (Kagan, 1995) is a collaborative activity that encourages students to seek diverse perspectives as they brainstorm new ideas in response to a prompt. The instructor offers four possible responses to the prompt and assigns a response to each corner of the room. Students move to the corner that best fits their answer choice and then discuss their selection, explaining the reasons that support their decision. In their corner groups, students assess their understanding of the content and the different perspectives, discuss the choices, and evaluate their reasoning. After the corner group discussions, the entire class reconvenes and a spokesperson from each of the four corners shares their discussion points.

Through its focus on collaboration, inquiry, and understanding diverse perspectives, the Four Corners discussion strategy stimulates students' critical and creative thinking.

Instructional Objectives

Students will:

- Work together to formulate ideas in support of their answer to a prompt.
- Develop critical thinking skills while assessing their understanding of content.

Guiding Question

- How do I encourage students to engage in critical thinking and inquiry as they brainstorm ideas in response to a prompt?

Process

Time to implement: *Varies depending on instructor objectives and learner outcomes; 15–20 minutes*

Four Corners

- Present a prompt to students and have them write down whether they strongly agree, agree, disagree, or strongly disagree with the statement. Students should support their answer by explaining their reasoning.
- Assign an answer choice to each of the four corners.
- When students are finished writing, instruct them to move to the corner that most accurately represents their stance.
- Students then engage in a group discussion, justifying why they chose their corner.
- Instruct each group to identify a spokesperson. The spokesperson will summarize the group's position for the rest of the class.
- When time is called, the spokesperson at each corner takes a turn explaining their group's response.
- The groups can share and engage in a debate with each other. If allowing for debate, ensure that the group members summarize the point that preceded their rebuttal or comment.

Idea Corners

- Present a prompt to students that has multiple answers. Rather than having *strongly agree, agree, disagree*, and *strongly disagree* as the answer choices, the instructor will pose different answers to the prompt's question (e.g., *Which branch of the U.S. government has the most power? Legislative? Judicial? Executive? A combination of these?).*
- Instruct the students to write down their response, supporting their answer with evidence and reasoning.
- Assign an answer choice to each of the corners.
- When students are finished writing, instruct them to move to the corner that most accurately represents their stance.
- Students then engage in a group discussion, justifying why they chose their corner.
- Instruct each group to identify a spokesperson. The spokesperson will summarize the group's position for the rest of the class.
- When time is called, the spokesperson at each corner takes a turn explaining their group's response.
- The groups can share and engage in a debate with each other. If allowing for debate, ensure that the group members summarize the point that preceded their rebuttal or comment.

Force the Choice

- Present a prompt to students. Rather than allowing students to choose their answer, the instructor will choose the answer each student will support.
- Instruct the students to write down their response, supporting their answer with evidence and reasoning.
- When students are finished writing, instruct them to move to the corner corresponding with the answer they were assigned.
- Students then engage in a group discussion, justifying the position their corner represents.
- Instruct each group to identify a spokesperson. The spokesperson will summarize the group's position for the rest of the class.
- When time is called, the spokesperson at each corner takes a turn explaining their group's response.
- The groups can share and engage in a debate with each other. If allowing for debate, ensure that the group members summarize the point that preceded their rebuttal or comment.

See Instructional Practice: Brainstorming in Chapter 3, page 77, for information on classic brainstorming.

INSTRUCTIONAL PRACTICE: Carousel Brainstorming

Carousel brainstorming gives students an opportunity to interact as they generate a variety of ideas in a short period of time. According to Cathy Allen Simon of the National Council of Teachers of English (n.d.-a), carousel brainstorming provides a scaffold for students to activate prior knowledge through movement, discussion, and reflection. In addition, it encourages students to collaborate as they connect new learning to their activated pre-existing knowledge.

Instructional Objective

- Students will generate a variety of ideas in a brief period of time.

Guiding Question

- How can I guide my students in a safe, nonjudgmental environment as they think creatively and critically to generate ideas about content?

Process

Time to implement: *Varies depending on instructor objectives and learner outcomes; 15–20 minutes*

- Create several related prompts and write each prompt on a separate poster paper.
    - For example, the prompts could be *Provide evidence and reasoning to support the claim that the [legislative / judicial / executive] branch of the U.S. government has the most power.* In this case, each poster would provide a prompt arguing for the power of one branch of government over the others.
- Divide the class into the same number of groups as there are posters/prompts, and assign each group to a specific poster paper. On the instructor's signal, students should move to their designated poster. Tell the students that they will generate and record as many ideas as possible about the prompt in the allocated time. Inform them that their ideas do not need to be documented by a single scribe; rather, everyone can write their ideas on the poster paper in a "graffiti" manner.
- When time is called, instruct groups to rotate clockwise to the next poster. Then ask them to review what their peers have written. After the review, invite groups to add to the previous groups' ideas.
- After time is called, instruct groups to rotate again and repeat the process of reviewing and adding to the other groups' posters. Rotate through the process until all groups have visited all posters and interacted with all of the prompts.
- At the end of all rotations, invite the students to participate in a Gallery Walk exercise to view all the posters and read the ideas that were brainstormed.
- Engage in a group debrief to conclude the activity.

One way to quickly begin generating ideas is for students to participate in a Whip-Around. For a description of the Whip-Around strategy, see Chapter 3, page 87.

INSTRUCTIONAL PRACTICE: Jigsaw Groups

Jigsaw Groups is a structured, interdependent learning activity that was developed in the 1970s by Elliot Aronson and his students at the University of Texas and the University of California (Aronson & Social Psychology Network, 2014). It is a cooperative strategy that encourages students to take an active role in their learning and the education of others. Learning from one another enhances student engagement as each student becomes an educational resource for others. As a result, the educator becomes the facilitator who shares the learning, rather than the sole information resource.

Among other things, the jigsaw classroom can increase positive educational outcomes and experiences. What makes a jigsaw effective is that each student's part is essential to fully understanding the "whole picture." Because of this, each student feels integral to the learning process and education of the entire group.

Instructional Objectives

Students will:

- Analyze a section of text and share ideas with their group.
- Identify and analyze the sequence of a problem, process, reading, or proof.
- Share ideas through group discussion.

Guiding Questions

- How can I support students as they become experts in a section of text and then teach that information to a group of students?
- How can I empower students to collaborate while they are putting information in order?

Resource

- *Instructor Resource: Collaborative Group Work Sample Rubric*

Process

Time to implement: *Varies depending on instructor objectives and learner outcomes; 30–45 minutes*

Home/Expert Jigsaw

- Select a text that can be divided into equivalent sections. Number the sections.
- Divide students into groups (the number of students in each group will correspond to the number of sections in the text). This will be their "home" group.
- Instruct students to number off in their home groups.
- Assign each member of the home group the section of the text corresponding to their number.
- Allow time for students to read and take notes on their section of the text.

- After the time for reading and taking notes, instruct students to group with other like-numbered students to form "expert" groups.
- Ask each expert group to discuss their section of the text. Invite "experts" to share notes, clarify questions, and summarize information.
- After time is called, direct the experts to return to their home group. When they return home, each expert takes a turn teaching the home group members their section of the text.
- To debrief, invite the class to discuss the content and the jigsaw process.

Sequencing Groups Jigsaw is a collaborative strategy that can be used in a variety of contexts where the sequence of information is important. For example, Sequencing Groups Jigsaw can be used in history, mathematics, or science classes when information needs to be ordered.

Sequencing Groups Jigsaw

- Create a prompt or question that has a number of steps. Print the prompt/question in such a way that it can be divided into steps. Cut the steps apart so that each step is on an individual piece of paper.
- Divide the students into groups, the numbers of which will correspond to the number of steps in the prompt. For example, if the prompt has five steps, there should be five students per group.
- Assign each student in the group a different section of the prompt.
- To begin, ask each group member to read their section of the prompt. The group should then work together to place the sections in the correct order to form the whole prompt. When placing sections, each person must explain why they think their section fits where it does.
- After the group reaches consensus on the ordering of the steps, invite students to write their sequence on chart paper.
- Instruct students to hang their chart paper on the wall so the groups can compare their results.
- Invite the class to debrief by discussing which sequence is the best.

Variation

- To engage the entire class in the sequencing jigsaw collaboration, assign each group a step of the prompt, and have the whole class collaborate to determine the sequence of the steps.

Collaborative Group Work Sample Rubric

Student: _____ **Date:** _____

Objective: Students will work collaboratively to complete tasks as a group.

Skill Assessed	0 – 1	2	3	Score
Input	Student rarely or never participates in the group's work.	Student sometimes contributes to the group's work.	Student effectively makes helpful contributions to the group's work.	
Time Management	Student does not complete tasks on time. Student gives little to no active participation.	Student usually completes tasks on time. Student works with the group to meet deadlines and has to reassign work/tasks.	Student completes tasks on time. Student works with the group to meet deadlines without having to reassign work/tasks.	
Interpersonal/ Intrapersonal Skills	Student does not listen well or facilitate group work.	Student usually engages in active listening and strives to facilitate the group's work.	Student engages in active listening and strives to facilitate the group's work.	
Evidence of Contribution	Student does not contribute to the group's work.	Student gathers and utilizes information gathered by self and others. Student coordinates information (through writing, audio recording, etc.) that contributes to the group's work.	Student gathers information and shares it with the group. Student synthesizes information (through writing, audio recording, etc.) that contributes to the group's work.	

Total: _____

INSTRUCTIONAL PRACTICE: **World Café**

World Café (Brown, 2005; The World Café Community Foundation, 2017) deepens students' learning of content through collaborative discussion. This collaboration activity can be modified to meet a variety of objectives. World Café is similar to carousel brainstorming but differs in various process steps and the approach to the discussion.

Instructional Objective

- Students will dive deeply into content through collaborative discussion.

Guiding Question

- How can I engage students in thoughtful, collaborative discussion around a topic, text, or issue(s)?

Process

Time to implement: *Varies depending on instructor objectives and learner outcomes; 20–30 minutes*

Classic World Café

- Prior to beginning the World Café, arrange the room into small tables or "stations." Determine the necessary number of stations by dividing the number of students in the class by four or five. Each station should have a piece of chart paper and markers.
- Create prompts around a topic, text, issue(s), etc. For each station, write one prompt on a sheet of chart paper, leaving plenty of room on the paper for students to write below the prompt.
- Instruct students to form groups of 4–5. Ask each group to gather at a station.
- Invite groups to select a "host" who welcomes the group, reads the prompt, and begins the discussion.
- Indicate that students may write their thoughts on the paper or they can ask the host to be the scribe.
- After allowing students time to discuss and write, inform them that in a moment they should rotate to the next station. Ask the hosts to stay back to welcome the next groups.
- Direct student groups to rotate. Ask the host to greet the next group when they arrive at the station and brief them on the previous group's discussion. After briefing the new group, the host should leave that station and join their original group. At this point, the groups should each elect a new host to read the prompt and facilitate the next discussion.
- Repeat until groups have rotated to all the stations.
- After all groups have completed the rotation, invite students to engage in a Gallery Walk to see the written thoughts of all the groups on the sheets of chart paper.
- Debrief the content.
    - Encourage students to share insights and thoughts as a large group.
    - Ask students: *How did you address the problems/issues that were assigned? Were there solutions to these problems/issues?*

    - Direct students to pair with a partner and discuss what the most important part of the discussion was. Ask: *Is there anything you wish you would have added to the discussion?*
- Debrief the process. Ask the students:
    - *What was most effective about this type of collaboration?*
    - *What was least effective about this type of collaboration?*
    - *What do you wish had been different about this collaborative process?*
    - *What could be done to improve the process?*

World Café: Case Studies

- Prior to beginning the World Café, arrange the room into small tables or "stations." Determine the necessary number of stations by dividing the number of students in the class by four or five. Each station should have a piece of chart paper and markers.
- Select case studies, court cases, or scenarios related to a topic. Each station will have a different case study, court case, or scenario.
- Create one prompt per station around the overarching topic. For each station, write the prompt on a sheet of chart paper, leaving plenty of room on the paper for students to write below the prompt.
- Instruct students to form groups of 4–5. Ask each group to gather at a station.
- Invite groups to select a "host" who welcomes the group; reads the case study, court case, or scenario; and begins the discussion.
- Indicate that students may write their thoughts on the paper or they can ask the host to be the scribe.
- After allowing students time to discuss and write, inform them that in a moment they should rotate to the next station. Ask the hosts to stay back to welcome the next groups.
- Direct student groups to rotate. Ask the host to greet the next group when they arrive at the station and brief them on the previous group's discussion. After briefing the new group, the host should leave that station and join their original group. At this point, the groups should each elect a new host to read the prompt and facilitate the next discussion.
- Repeat until groups have rotated to all the stations.
- After all groups have completed the rotation, invite students to engage in a Gallery Walk to see the written thoughts of all the groups on the sheets of chart paper.
- Debrief the content.
    - Encourage students to share insights and thoughts as a large group.
    - Ask students: *How did you address the problems/issues that were assigned? Were there solutions to these problems/issues?*
    - Ask students to pair with a partner and discuss what the most important part of the discussion was. Ask: *Is there anything you wish you would have added the discussion?*
- Debrief the process. Ask the students:
    - *What was most effective about this type of collaboration?*
    - *What was least effective about this type of collaboration?*
    - *What do you wish had been different about this collaborative process?*
    - *What could be done to improve the process?*

Post-Reading Reflection Questions

- How will I encourage students to work collaboratively toward a common goal?
- What collaborative strategies will I use to encourage students to reflect on their thinking, utilize critical thinking skills, and fully engage in the learning process?
- How will I leverage collaboration strategies to empower students to work together as they dive deeply into the content, their fields of study, and ultimately career preparation?
- What are the next steps that will guide my work as I engage students in collaborative learning and thinking?

Conclusion

Working together to reach a common goal—where the success of one individual undergirds and drives the success of others—is the hallmark of collaboration. This critical 21st century skill has been touted as an "essential part of how we need to operate to be successful in today's world" (Power, 2016). In this chapter, instructional practices were introduced to employ collaboration across content areas and disciplines. These practices guide instructors as they prompt students to delve into the *why, what*, and *how* of collaborative work. In turn, students come to realize that working together sparks diverse thoughts and perspectives, propelling deeper critical thinking and understanding and building essential skills for success in today's society and tomorrow's world.

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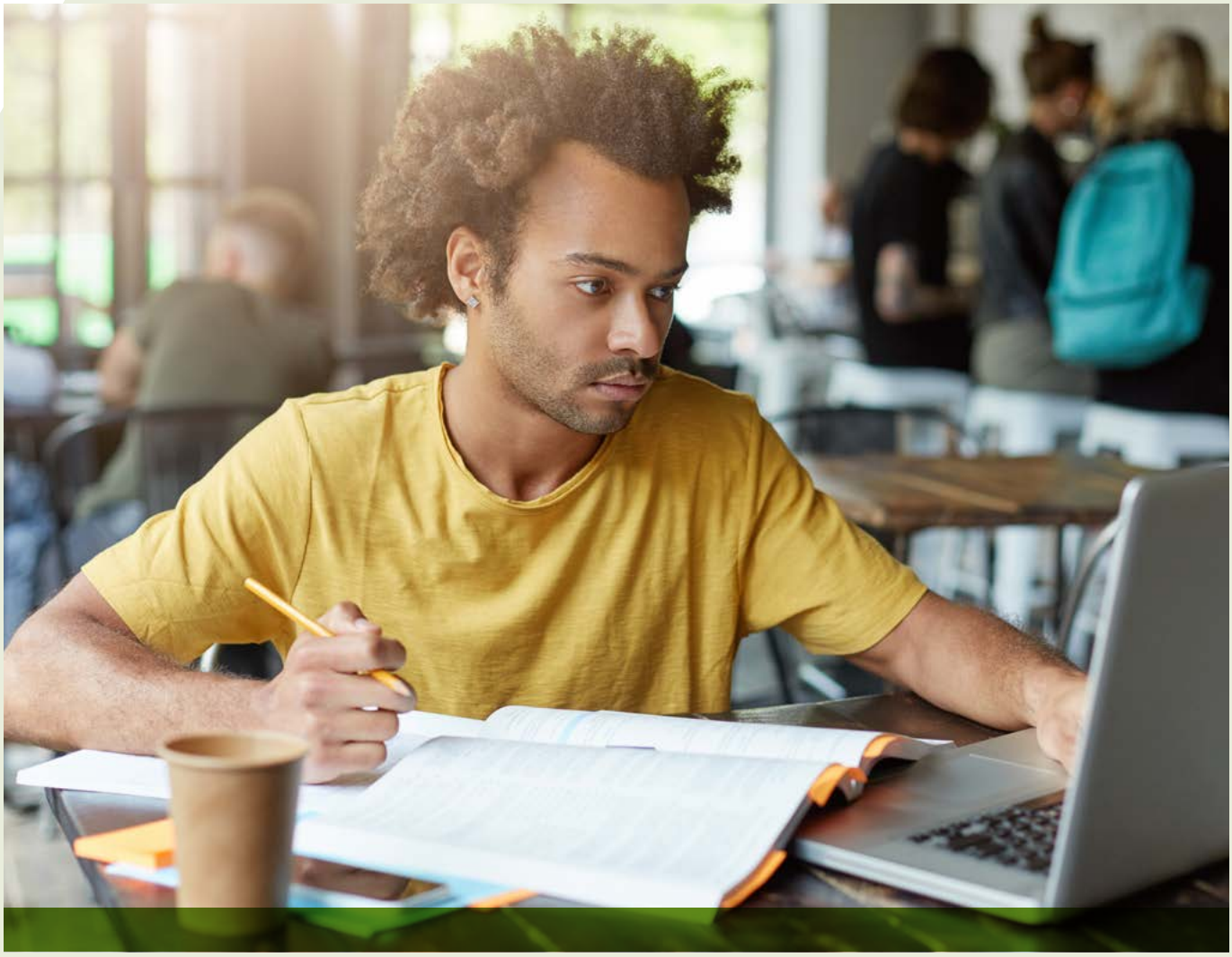


CHAPTER FIVE

Organization of Thought and Materials

Visit the *AVID for Higher Education: High Engagement Practices for Teaching and Learning* webpage
on MyAVID for additional materials and resources.

CHAPTER **Introduction**

College and career success can depend on a student developing success skills in addition to cognitive skills. *Success skills* are skills that can improve the way students approach their work and interact with others. Motivation, goal setting, self-efficacy, personal organization, self-management, and metacognition are all key success skills that help students address a variety of different situations and adapt to ever-changing circumstances (Conley, 2015). Conley stated that success skills "describe the diverse mix of behaviors and mindsets students need to be effective learners" and, along with other related techniques, strategies, and approaches, are "a key to college and career readiness" (Conley, 2015). As noted, developing effective organization habits is one of the success skills that is integral to success in college and careers.

Organization can encompass physical space (e.g., a backpack is organized) and thought processes (e.g., time is managed and project deadlines are met). Both types of organization are important for academic success.

Success skills are also known as "soft skills." It has been argued that "soft skills" is a misnomer because often those skills are as valuable as cognitive skills, if not more so (Conley, 2015). Conley suggested that these skills are termed "soft" simply because they are harder to measure.

Cognitive skills, also known as "hard skills," are skills that are specific, teachable, and measurable.

Why focus on organization?

Organization of physical space:

Oftentimes when students exhibit poor academic skills, it can be attributed to a lack of organization (Gersten, 1998, as cited in Gettinger & Seibert, 2002). Evidence of understanding organization and the benefits of utilizing organizational structures may be demonstrated by students; however, the use of these structures may not be used systematically. Whether higher education experiences take place in a face-to-face or online classroom, students must become more cognizant of the (co)location of academic and student services including, but not limited to, learning management systems and tutoring centers. Moreover, certain behaviors, such as effective time management, must be developed to strengthen students' organization skills needed to navigate physical spaces successfully.

Organization of thought processes:

Organization of thought involves setting and working toward goals. It encompasses being on track with one's academic responsibilities, as well as critically thinking, analyzing, and categorizing information in a linear and logical order. In essence, being cognitively organized involves keeping thoughts in order so that information can be easily retrieved and effectively used. Processing thoughts in an organized manner can aid in reaching deeper understandings of concepts (Buchanan, 2001; Soojin, J., Kim, M., & Lee, J., 2010).

What learning processes does organization support?

Organization involves managing materials and thought processes, engaging in mental preparation, and strategically and intentionally taking responsibility for one's own learning. A student's ability to organize not only their materials, but also their thoughts, allows them to display their knowledge in a coherent, cohesive manner.

Organization is important in college and careers because lack of organization can lead to a variety of problems (Gambill, Moss, & Vescogni, 2008). Gambill, Moss, and Vescogni, in their report of an action research project out of Xavier State University, found that:

> Lacking education, skills to display their abilities, and fundamental skills, students are not prepared for life.... Organization is a prerequisite for success. Organization crosses all studies for higher education and all life situations. Directly teaching organizational skills aids students for their current task (school) while preparing them for latter tasks (workforce). (p. ii)

Thus, the manner in which students organize is integral to school success and to their personal sense of control and accomplishment (Gallagher, 2003). Lack of organization can cause students to be ill-prepared for class and can affect college freshman as they transition to college. Students have to plan study and free time, as well as organize their living responsibilities and balance their work schedules (Gambill, Moss, & Vescogni, 2008). Organization is also critical in both educational and professional settings. Gambill, Moss, and Vescogni (2008) continued: "Due to the multitasking and goal setting required of so many businesses, the ability to design, plan, organize and implement projects within an allotted time frame is no longer desired, but required" (p. 9).

How will infusing AVID support organization?

Organization of materials and thoughts are two of the most important skills a student can develop. Keeping academic materials organized aids in the learning process and increases students' ability to focus, preparing them to succeed academically. AVID's WICOR framework and strategies help students learn to manage themselves and their plans to succeed. Furthermore, reflecting on the organization process is critical. Engaging in metacognitive thoughts empowers students to replicate what works for them and to change what does not.

Organization is of such critical importance that it should be a top priority for all students. Gambill, Moss, and Vescogni (2008) asserted that organization is a "prerequisite for success" that spans all ages and skill sets, and is vital in all aspects of life, from education to careers and beyond (p. ii)

Educator Outcomes

After reading this chapter, educators will be able to:

- Aid students in comprehension of content, skills for purposeful input, and retrieval of information through the application of organizational strategies.
- Explain the importance of organizing thought as a strategy to deepen the learning of content.
- Create frameworks for thought, time, energy, and materials that bolster academic success and advance career readiness by developing metacognition skills.

Pre-Reading Reflection Questions

- How can I encourage students to organize their academic materials to be able to efficiently and effectively input and access information?
- How can I use organization of thought to enable students to dive more deeply into both content and career preparation?
- How can I encourage students to reflect on the organization process to foster academic success and career readiness?

INSTRUCTIONAL PRACTICES: Organizational System Set-Up

College work requires more autonomy and independence than most students expect. The ability to organize one's academic materials (such as notes, assignments, handouts, and tests) is important for students to focus on input and retrieval of information. Instructors should also note that college and university students often have access to student services where advisors and mentors are available to help them set up a personalized organizational system. Informing students of the benefits of working with someone outside of class is a way to support student success in a manner that will impact how students organize their materials as well as their thoughts.

It is important for instructors to remember that students may have different frames of reference and varying levels of experience with explicit organizational instruction. The tools outlined in this section may be familiar to some students and new to others. Instructors should scaffold organizational practices whenever possible, such as by delineating a time frame or scope of when segments of major assignments are due. Research has indicated that every student is different when it comes to their ability to organize, meet deadlines, and manage their time (Gambill, Moss, & Vescogni, 2008). Accordingly, it is important for each individual to customize systems and tools that work for them from any of the strategies included in this chapter.

Instructional Objective

- Students will establish and maintain an organizational system that is effective and relevant to their learning.

Guiding Questions

- What effective organizational structures should students consider?
- How can I guide students as they create an organizational system that works?

Resource

- *Student Resource: Weekly Schedule*

Process

Time to implement: *Varies depending on instructor objectives and learner outcomes; 10–15 minutes*

Monthly Planner

- Provide a syllabus at the beginning of the course (or post one online for use throughout the term).
- Guide students as they peruse the syllabus looking for dates of summative assessments (e.g., dates of group projects, tests, quizzes, or papers).
    - Instruct students to highlight important dates on the syllabus.
- Encourage students to write the dates of the summative assessments in their monthly planner.
    - Instruct students to highlight the important dates in their planner.

There are many types of planners available (including paper and online). Guide students as they find one that fits their needs.

In addition to planners, students can try using a large monthly desk calendar or a large whiteboard. The main point is to find a planning system that works and use it consistently.

Weekly Planner

- Guide students as they write their weekly schedule.
    - Instruct students to write down their weekly course schedule, meetings, and any regular appointments.
    - Guide students as they transfer any summative assignment dates to the week.
        - Instruct students to highlight the summative assignment dates on their weekly planner.
    - Encourage students to write down short-term goals as they plan for the weekly summative assignment due dates.
    - Empower students to plan to take time for balance (e.g., encourage study breaks and exercise sessions).

There are many types of "to-do" lists available (including paper and online). Guide students as they find one that fits their individual needs.

Daily Planner

- Encourage students to create a daily "to-do" list of items that can be accomplished each day.
- Empower students to create a checklist system for their to-do list so they will know when an action has been completed.
    - Engage students in prioritizing the tasks on the to-do list—top priority items can be designated with a star, asterisk, number 1, etc.
- If tasks do not get completed during the day, encourage students to transfer them to the next day and label them as higher priority.

Weekly Schedule

	Events and Appointments	Assignments and Things to Do	Notes
Sunday			
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Saturday			

Time and Energy Management

Transitioning to a new campus can be both exhilarating and challenging. For the first time, many students need to create a balance among school, family, friends, work, self, and other opportunities and responsibilities. As such, time management is one of the most important skills for college students. It should be developed early in their college career and maintained throughout. Students need to develop healthy time- and energy-management habits that support, rather than sabotage, their college success.

Developing time-management skills will help students analyze how they spend their time, create a workable schedule, and collaborate with others to make good use of their time. Fostering effective habits can lead to better grades, decreased stress, and a more positive experience overall.

The first step to time- and self-management is goal setting, as it allows students to manage and plan their time in accordance with their priorities. Research has indicated that setting goals empowers students with motivation as well as long-term vision. It allows students to focus, as well as organize time and resources, to make the most out of life (“SMART Goals”, 2016).

INSTRUCTIONAL PRACTICE: SMART Goals

In order to achieve goals, it is essential to purposefully think them through and write them down. Locke and Latham, goal-setting theorists, suggested: "Specific and ambitious goals lead to a higher level of performance than easy or general goals" (2006). This philosophy has sparked the adoption of SMART goals in both education and industry.

The actual term "SMART" goals has been commonly attributed to Peter Drucker's *management by objectives* concept. The acronym was first used in an article by George T. Doran in the November 1981 issue of *Management Review.*

To set a SMART goal, one needs to create a goal that is:

- Specific: simple, sensible, significant
  - Students can ask:
    - *What do I want to accomplish?*
    - *Why is this goal important?*
    - *What resources are needed to accomplish the goal?*
- Measurable: meaningful
  - Students can ask:
    - *What data will I use to measure my progress?*
    - *How will I know when I accomplish my goal?*
- Action-oriented: achievable, attainable
  - Students can ask:
    - *What actions will I take to accomplish this goal?*
- Reasonable: realistic, relevant
  - Students can ask:
    - *How do I know this goal is a reasonable goal?*
    - *Does this goal match my efforts/needs?*
- Timely: time-based
  - Students can ask:
    - *What is the deadline for accomplishing this goal?*
    - *What can I do today?*

> *A goal without a plan is just a wish.*
>
> Antoine de Saint-Exupéry

Setting goals is an important first step in time- and self-management. When students have a goal firmly planted in their minds, it allows them to prioritize and make choices about how to spend their time and energy to further their objectives. As students set goals, they are empowered to focus, prioritize, and take control of their schedules.

Instructional Objective

- Students will guide their action toward reaching an objective by creating and using SMART goals.

Guiding Question

- How can I support students as they create SMART goals and work toward objectives?

Resources

- *Student Resource: Setting SMART Goals*
- *Instructor Resource: SMART Goals – Reflection Sample Rubric*
- *Student Resource: Goal, Plan, Action (GPA) Goal-Setting Outline*

Process

Time to implement: *Varies depending on instructor objectives and learner outcomes; 7–10 minutes*

SMART Goals

- Instruct students to read through the *Student Resource: Setting SMART Goals* and understand the guidelines for setting SMART goals.
- Still referring to the *Student Resource: Setting SMART Goals*, instruct students to perform a quickwrite on three goals they would like to achieve.
    - Guide students as they use the SMART template to transform their three goals into SMART goals.
- Invite students to pair with another student and share their SMART goals. Depending on the instructor's objectives, this partner can be an "accountability" partner—a person with whom the student can check in periodically to assess progress toward their goal.

Extension

SMART Goals with an Action Plan: Goal, Plan, Action (GPA)

- Invite students to transfer one of their SMART goals from the *Student Resource: Setting SMART Goals* to the "Goal" section on the *Student Resource: Goal, Plan, Action (GPA) Goal-Setting Outline.*
- Instruct students to use the "Plan" section on the *Student Resource: Goal, Plan, Action (GPA) Goal-Setting Outline* to create action steps for how they will achieve their goal.
- Invite students to identify their action steps in the "Action" section on the Student Resource page.
- After students have completed the *Student Resource: Goal, Plan, Action (GPA) Goal-Setting Outline*, invite them to pair with a partner to share their action steps.

Setting SMART Goals

S Specific	Goals should be specific, significant, and simple. Ask: • What do I want to accomplish? • Why is this goal important? • What resources are needed to accomplish the goal?
M Measurable	Goals should be measurable and meaningful. Ask: • What data will I use to measure my progress? • How will I know when I accomplish my goal?
A Action-Oriented	Goals should be action-oriented, achievable, and attainable. Ask: • What actions will I take to accomplish this goal?
R Reasonable	Goals should be realistic, reasonable, and relevant. Ask: • How do I know this goal is a reasonable goal? • Does this goal match my efforts/needs?
T Timely	Goals should be timely. Ask: • What is the deadline for accomplishing this goal? • What can I do today?

Brainstorm Goal 1:

SMART Goal 1:

Brainstorm Goal 2:

SMART Goal 2:

Brainstorm Goal 3:

SMART Goal 3:

SMART Goals – Reflection Sample Rubric

Student: _____ **Date:** _____

Objective: Students will develop and write a SMART goal.

Skill Assessed	0 – 1	2	3	Score
Depth of Reflection	Student does not articulate the organization of thought and materials needed to achieve the SMART goal.	Student articulates with some ambiguity the organization of thought and materials involved in achieving the SMART goal.	Student effectively articulates a complete understanding of the organization of thought and materials involved in achieving the SMART goal.	
Connection to (Con)texts	Student does not make connections to (con)text and course expectations.	Student makes partial connections to (con)text and course expectations.	Student effectively makes connections to (con)text and course expectations.	
Clarity of Language	Student integrates 1–2 elements of the SMART goal with several errors in standard writing conventions.	Student integrates 3–4 elements of the SMART goal with minimal errors in standard writing conventions.	Student effectively integrates all 5 elements of the SMART goal using standard writing conventions.	

Total: _____

Goal, Plan, Action (GPA) Goal-Setting Outline

Name: _____ **Date:** _____

Use the form below to complete the GPA outline.

G Goal	Use the space below to describe your **goal**.	
		☐ short-term goal ☐ mid-term goal ☐ long-term goal

P Plan	Use the space below to briefly explain your **plan**.

A Action	Use the space below to list the **action** steps that are needed to achieve your goal.
	1. 2. 3. 4. 5. 6. 7. 8. 9. 10.

INSTRUCTIONAL PRACTICE: **Self-Monitoring**

The beginning of the course is the optimal time for instructors to reiterate the importance of attending to and monitoring a personal schedule in order to self-evaluate and prioritize activities inside and outside of class. This practice supports organization of time, materials, and thought. Once a SMART goal has been set and a plan is in place, students need to monitor and evaluate their progress. Research has shown that students retain information, persist in their studies, and complete graduation requirements when they monitor their own progress (Safer & Fleischman, 2005).

Instructional Objective

- Students will learn to self-monitor to assess whether they are on the right track or need to reevaluate and modify their behavior.

Guiding Question

- How can I support students as they monitor their behavior to determine if they are on the right track or need to reevaluate and modify behavior?

Resources *(from previous instructional practice)*

- *Student Resource: Setting SMART Goals*
- *Student Resource: Goal, Plan, Action (GPA) Goal-Setting Outline*

Process

Time to implement: *Varies depending on instructor objectives and learner outcomes; 5–7 minutes*

- Invite students to peruse their *Student Resource: Setting SMART Goals and Student Resource: Goal, Plan, Action (GPA) Goal-Setting Outline.*
- Engage students in a quickwrite. Ask them to reflect on some or all of the following questions.
    - *Am I on the right track?*
        - *What is going well?*
        - *What is challenging?*
    - *Do I need to reassess my SMART goal?*
        - *Which of the SMART steps (i.e., the goal being specific, measurable, etc.) is/are working?*
    - *Do I need to reassess my plan?*
        - *Should I make adjustments to my plan?*
    - *Am I accomplishing action steps toward my goal?*
        - *Do I need to reassess my action steps?*
        - *Should I make adjustments to my action steps or schedule?*

INSTRUCTIONAL PRACTICE: Time Audit

There is often a difference between how one thinks they spend their time and how it is actually spent. Many people waste time each day or spend it on unimportant activities without even realizing it. A time audit allows students to know exactly how their time is spent each day so they can improve their time- and self-management, ensuring that time is spent on important activities.

Instructional Objectives

Students will:

- Understand what activities are essential for college success.
- Understand how they are using their time on a weekly basis.
- Complete a weekly schedule that categorizes and prioritizes activities.
- Analyze their time to create a more structured, balanced, and efficient schedule.

Guiding Question

- How can I encourage students to track their time, reflect on how they use their time, and create a realistic, balanced schedule?

Resources

- *Student Resource: Time Audit Worksheet*
- *Student Resource: Guiding Questions for Time Audit Worksheet*

Process

Time to implement: *Varies depending on instructor objectives and learner outcomes; 10–15 minutes*

Reflection

- Instruct students to complete a quickwrite on the following prompts:
  - *How do you think you spend your time?*
  - *What are the five most important activities (e.g., studying, working, etc.) you currently spend time on?*
- After the quickwrite, encourage students to prioritize their list of five activities—place an "A" by the highest priority, a "B" by the next highest priority, etc.
- Divide the class into groups of 3–4 students. Instruct the groups to create a list of their five most important activities. For each activity, they should estimate the number of hours per week they spend on that activity.
- Instruct the groups to report out. As they are reporting, a class scribe can take notes. Instruct the students to list each activity, as well as the time they spend on each activity.
- Add up the total number of hours spent on each activity.

- Debrief, discussing the following questions as a group:
    - *Which activities are most important in relation to academic success?*
    - *Which activities are least important in relation to academic success?*
    - *Can any activities be reduced or eliminated?*
    - *Is there a way to structure time to have a more productive week?*
- Instruct the students to complete an individual quickwrite:
    - *Are there activities that can be increased, reduced, or eliminated?*
    - *Is there a way to structure time so your week is more productive?*
    - *What changes will you commit to making in your weekly schedule?*

Classic Time Audit

- Using the *Student Resource: Time Audit Worksheet,* ask students to keep track of their activities for a week.
- After the week of tracking activities, pair students and ask them to compare their weekly time audits.
- Using the *Student Resource: Guiding Questions for Time Audit Worksheet,* have pairs discuss:
    - *What do you spend the most time on during a typical week?*
    - *What do you spend the least time on during a typical week?*
    - *How many hours do you spend in class every day?*
    - *How many hours do you spend studying every day?*
        - *Is your study amount sufficient?*
        - *Is the time of day you study working for you?*
    - *How productive is your study time?*
    - *Are you satisfied with how you spend your time every day?*
        - *If yes, how can you continue in this manner?*
        - *If no, what can you change?*

Study Time Audit

Similar to the time audit that enables students to see how they are spending their time, a study time audit allows students to focus on the time they spend studying and the effectiveness of that session. The Association of American Colleges and Universities (AAC&U) has endorsed the well-established rule that students should devote approximately two hours of study time for every hour spent in class. Unfortunately, data collected by the National Survey of Student Engagement (NSSE) indicated that full-time students spend far less time studying than suggested. In 2009–2010, full-time students at United States institutions spent approximately 14.7 hours per week studying. And only 11% of first-year students and 14% of seniors reported studying 26 or more hours a week (NSSE 2009–2010, as cited in McCormick, 2011).

- Divide the class into groups of 2–3.
- Instruct groups to brainstorm study activities that would be effective for achieving course objectives.
- As a class, create a master checklist of potential study activities.
- Invite students to use a clean copy of the *Student Resource: Time Audit Worksheet* to keep track of their time spent in class and studying.

- As an extension, invite students to use the *Student Resource: Time Audit Worksheet* to assess the productivity of each study session as high, average, low, or nonproductive.
- After a week has passed, instruct students to summarize the overall productivity of study time (the amount of study time at various levels of productivity, the times of study, etc.).
- Ask students to form pairs or triads and use the *Student Resource: Guiding Questions for Time Audit Worksheet* as a reference point while discussing the questions.
    - *What do you spend the most time on during a typical week?*
    - *What do you spend the least time on during a typical week?*
    - *How many hours do you spend in class every day?*
    - *How many hours do you spend studying every day?*
        - *Is your study amount sufficient?*
        - *Is the time of day you study working for you?*
    - *How productive is your study time?*
    - *Are you satisfied with how you spend your time every day?*
        - *If yes, how can you continue in this manner?*
        - *If no, what can you change?*
- Instruct students to complete a quickwrite to reflect on the quality and efficacy of their study time. Ensure that students are reflecting on days of the week and times of the day when they are most (and least) effective, and encourage them to think about how they could restructure their study time to make it more efficient and effective.
- Debrief by engaging students in a class discussion.
    - Compare and contrast the initial discussion regarding the most important activities students spent time on and the second discussion on the time audit (either classic or study time).
    - Ask students if they are spending the appropriate amount of time on important activities that will lead to academic success.

Time Audit Worksheet

Use the grid to keep track of your activities for the week, including class, studying, work, and leisure.

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
7:00 AM							
8:00							
9:00							
10:00							
11:00							
12:00 PM							
1:00							
2:00							
3:00							
4:00							
5:00							
6:00							
7:00							
8:00							
9:00							
10:00							
11:00							
12:00 AM							

Study Time Audit Adaptation: Use the grid to keep track of when you study. Include how productive each study session was (High, Average, Low, or Nonproductive).

At the end of the week, summarize the total study time by productivity:

_____ High

_____ Average

_____ Low

_____ Nonproductive

Guiding Questions for Time Audit Worksheet

Questions to consider

- What do you spend the most time on during a typical week?
- What do you spend the least time on during a typical week?
- How many hours do you spend in class every day?
- How many hours do you spend studying every day?
    - Is your study amount sufficient?
    - Is the time of day you study working for you?
- How productive is your study time?
- Are you satisfied with how you spend your time every day?
    - If yes, how can you continue in this manner?
    - If no, what can you change?

Reflect on how you spend your time. How could you restructure your time to make it more efficient and effective?

Reflect on how you spend your study time. Do the days/times you study impact the productivity of the study time? How could you restructure your study time to make it more efficient and effective?

> *To begin with the end in mind means to start with a clear understanding of your destination. It means to know where you're going so that you better understand where you are now and so that the steps you take are always in the right direction.*
>
> Stephen R. Covey, *The 7 Habits of Highly Effective People*

INSTRUCTIONAL PRACTICE: Backward Mapping

Most college instructors assign long-range projects or papers that require an extended period of time for students to complete. Many students encounter problems as they face these long-range projects—they simply don't plan or they plan inappropriately for the task at hand. Accordingly, students need to learn how to manage a long-range project by breaking it down into smaller tasks that can be completed sequentially. Time-management skills are required to complete the ordered tasks.

Backward mapping (also called backward design) is a strategy for planning long-range projects through "purposeful task analysis" (Wiggins & McTighe, 2001). In backward mapping, a student defines the end goal for the task and works backward, identifying necessary steps and their order of completion, mapping from the end of the project to the beginning.

Instructional Objective

- Students will be able to analyze a long-range project to develop a list of smaller steps that lead from the due date to the beginning step.

Guiding Question

- How can I guide students as they backward map from the due date of a summative assignment to the beginning step?

Resources

- *Student Resource: Project/Paper Task List*
- *Student Resource: Backward Mapping Worksheet*

Process

Time to implement: *Varies depending on instructor objectives and learner outcomes; 10–12 minutes*

- Review the course syllabus with the class. Instruct students to highlight all long-range assignments.
- Invite students to work in groups of 2–3. Ask them to consider:
  - *Why is time management an important skill for college students?*
  - *What are methods you have used to pace yourself when working on a long-range project/assignment?*
- Instruct the groups to identify a long-range project/assignment from the syllabus.
- Ask groups to identify the desired result and determine the due date.
- Ask groups to determine and analyze the steps needed to complete the assignment, noting that not all steps will necessarily have a determined due date—often, students will need to create the due dates for the steps as they backward map.

- Instruct student groups to use the *Student Resource: Project/Paper Task List* to list the component tasks required to complete the project/assignment.
- Then, working backward from the project due date to the beginning date, have the student groups assign target completion dates for each task.
- Ask students to complete their own copies of the project/paper task list.
- Invite student groups to develop a list of evidence or information needed to complete the steps or tasks. Instruct students to use the *Student Resource: Backward Mapping Worksheet* to fill in the evidence or information needed.
- Instruct the student groups to brainstorm where they can find the evidence or information, and invite them to fill in the column on the *Student Resource: Backward Mapping Worksheet* corresponding to the source of evidence or information.
- Instruct the student groups to brainstorm any related tasks that need to be addressed. Invite them to complete the appropriate section in the *Student Resource: Backward Mapping Worksheet.*
- Instruct students to complete their own copies of the completed backward mapping worksheet.
- Periodically monitor the students' progress to ensure success.

Project/Paper Task List

Assignment: _____ Due Date: _____

Number of Days to Complete: _____

Task to Complete	Targeted Completion Date	Completed

Backward Mapping Worksheet

Assignment: _____ Due Date: _____

Number of Days to Complete: _____

Evidence or Information Needed to Complete the Assignment	Source(s) of Evidence or Information	Related Task(s)

INSTRUCTIONAL PRACTICE: Graphic Organizers

Graphic organizers have been referred to as process organizers, concept maps, cognitive maps, thinking maps, or content webs. Regardless of the title, the purpose is to help students decipher ideas and concepts from a text. The graphic organizer is used to help students visualize relationships within content, draw comparisons between concepts, and identify elements of arguments.

Graphic organizers offer a wide range of instructional options for connecting information and diving deeper into higher levels of thinking. When students use graphic organizers, they intentionally focus on processing information. Graphic organizers can also be used as an "advance organizer" to catalogue students' prior knowledge and prepare for learning (Marzano, Pickering, & Pollock, 2001). This preparation phase can be followed by organizing thoughts at a foundational level, then processing the thoughts, and finally synthesizing, incorporating, and applying the information.

In addition, the use of graphic organizers as a visual display of information encourages educators and students to organize content in a manner that makes complex concepts and data easier to understand (Meyen, Vergason, & Whelan, 1996). Graphic organizers and concept maps have the potential to increase students' motivation and engagement, and deepen their learning (Novak & Cañas, 2008).

Graphic organizers can be thought of through an inquiry lens as students build from information gathering (Level 1) to processing the information (Level 2) to application of the information (Level 3). See Chapter 3 for more information on inquiry and levels of thinking.

Instructional Objective

- Students will learn how to organize their learning and improve their understanding of content through visual representations.

Guiding Questions

- What does the effective use of graphic organizers look like in postsecondary education?
- How can I guide students as they organize their learning and deepen their understanding of content?

Resource

- *Student Resource: Processing Organizers*

Process

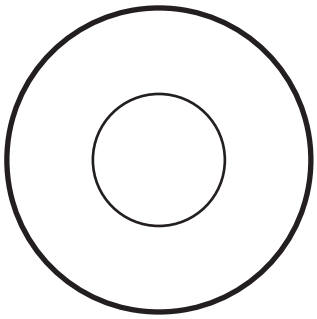
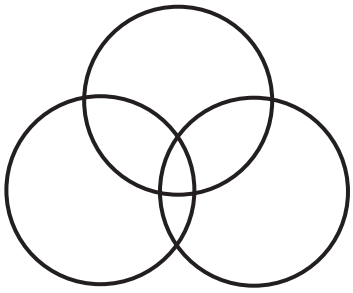
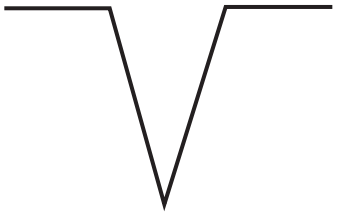
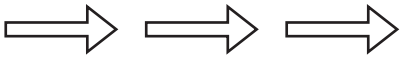
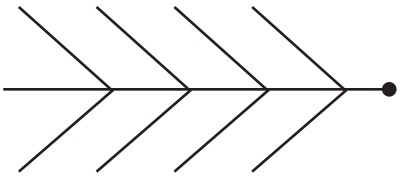
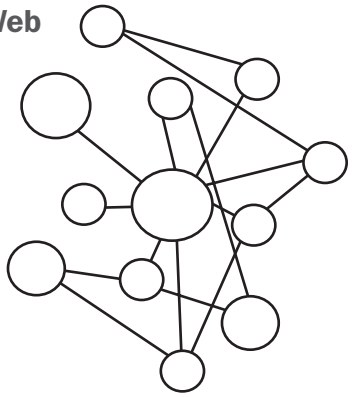
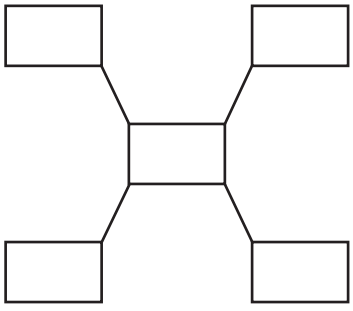
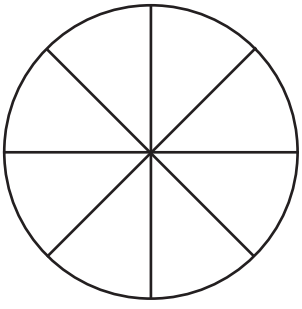
Time to implement: *Varies depending on instructor objectives and learner outcomes; 10–15 minutes*

Instructors can use a document camera to model how to use a graphic organizer.

- Assign a text or prompt.
- Distribute the *Student Resource: Processing Organizers* to the class. Review the types and purposes of graphic organizers.
- Generate ideas about the text or prompt. Select a graphic organizer to use as an example and begin to brainstorm as a class, modeling how to use the graphic organizer.
- Starting with Level 1 thinking, instruct students to choose a graphic organizer and create a visual representation of the text or prompt. Encourage students to share their graphic organizer with a partner.
- Next, instruct students to choose a graphic organizer that represents Level 2 thinking and create a visual representation of the text or prompt. Encourage students to share their graphic organizer with a partner.
- Moving to Level 3 thinking, instruct students to choose a graphic organizer and create a visual representation of the text or prompt. Encourage students to share their graphic organizer with a partner.
- Debrief as a class. Encourage students to discuss what they notice in the deepening of their understanding by using the different levels of graphic organizers.

Processing Organizers

Using the specified text, choose one organizer from each of the levels below and create a visual representation of the information learned.

Level One **Graphic Organizer** Organize a concept learned/ taught.	**Level Two** **Graphic Organizer** Process a concept(s) learned/ taught.	**Level Three** **Graphic Organizer** Compare a concept learned/ taught to previous knowledge or extend beyond the lesson.
Bulls Eye 	**Venn Diagram** 	**Vee** 
Timeline/Sequence 	**Fish** 	**Web** 
4 Square 	**Pie** 	**Research and Develop Your Own**

INSTRUCTIONAL PRACTICE: Concept Mapping

Concept mapping is a strategy that students can use to consider relationships among ideas. In concept mapping, students can explore abstract concepts by diagramming relationships between various ideas using directional arrows and a hierarchical structure (Cañas & Novak, 2006; Frey, 2016). This strategy engages students in organization and inquiry as they organize information, question the connections, and dive more deeply into ideas to make sense of the content.

Instructional Objectives

Students will:

- Make an abstract idea more concrete and holistic by creating a visual representation of that idea.
- Stimulate out-of-the-box thinking by building concept maps.

Guiding Question

- How can I encourage students to think outside the box as they strive to create connections to an abstract concept?

Process

Time to implement: *Varies depending on instructor objectives and learner outcomes; 10–15 minutes*

- Share an abstract concept with the class. Provide opportunities for students to ask clarifying questions.
- Using a concept map, invite students to quickwrite about the concept, identifying as many aspects of the concept as they can.
- Share examples of the visual in a Gallery Walk or Whip-Around.

Post-Reading Reflection Questions

- What organizational strategies and tools will I employ to encourage students to organize their academic materials so they are able to efficiently and effectively input and access information?
- How will I use organizational techniques to enable students to dive more deeply into content and career preparation?
- Have I set SMART goals (short- and long-term) to guide me as I empower students to dive deeply into content?
- How will I encourage students to reflect on the organization process to bolster academic success and career readiness?
- What are the next steps that will guide my work while I engage and encourage students as they build skills in organizing their thoughts and materials?

Conclusion

Organization, an important college and career skill, encompasses structuring one's physical space and thought processes. According to Eliaz (2012), an organized physical space allows people to focus on the "big picture" in order to accomplish their goals. Organization of thought promotes critical thinking and analysis leading to deeper understanding of oneself, others, and the world. In this chapter, instructional practices were presented to provide instructors with versatile strategies, tools, and frameworks to develop and deepen students' fundamental organization skills that are not only desired, but vital for success in society (Gambill, Moss, & Vescogni, 2008).

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CHAPTER SIX

Reading to Learn

Visit the *AVID for Higher Education: High Engagement Practices for Teaching and Learning* webpage
on MyAVID for additional materials and resources.

> *Think before you speak. Read before you think.*
>
> Fran Lebowitz, *The Fran Lebowitz Reader*

CHAPTER **Introduction**

Research on undergraduate students has confirmed what many educators suspect: most students do not complete assigned readings prior to class (Jenks, 2016; Burchfield & Sappington, 2000; Hoeft, 2012). Developing college students' reading skills continues to be a challenging aspect of teaching and learning. To facilitate increased awareness and development of reading as a skill to promote learning (i.e., *reading to learn*), this chapter includes strategies that provide the structures necessary for students to internalize concepts presented in various (con)texts.

Why focus on reading to learn?

Freire and Macedo (1998) noted the following about reading to learn as a skill that enables students to decipher texts:

> Reading the world always precedes reading the word, and reading the word implies continually reading the world… this movement from the word to the world is always present; even the spoken word flows from our reading of the world. In a way, however, we can go further and say that reading the word is not preceded merely by reading the world, but by a certain form of *writing* or *rewriting* it, that is, of transforming it by means of conscious, practical work.

Without reading, the mind remains barren; with it, the reader can go anywhere (Dix, 2016). Reading is an important aspect of our growth as humans for diving into reading, questioning content, analyzing information, and making sense out of the entire process is critical to the development of the mind.

What is reading to learn?

Reading in college is entirely different than pleasure reading ("Staying Afloat"). College reading, like writing, demands cognitive and critical thinking skills. Because it is so different, effective reading requires explicit instruction and practice.

Researchers Bartholomae and Petrosky posited that one reason college students do not read is because they lack the strategies and skills needed to understand complex academic content (2002). They also suggested that educators build reading strategy development and practice into their courses to ensure that students understand and retain critical content. Educator Rob Weir (2009) asserted that it is critical for thinking, reading, and writing to be basic components of all entry-level classes. AVID's philosophy builds on Weir's assertion, adding that accessing content in academic disciplines at all levels of learning is critical for academic literacy. AVID's approach invites instructors at all levels to "make transparent what good readers do" (Custer et al., 2011).

How does AVID's focus on reading to learn support learning processes?

Reading is the foundation of all education. The reading process guides educators as they build critical reading and thinking skills that move students toward more enriched and extensive academic literacy. AVID as a systemic approach lends itself to highlighting intellectual processes referred to in this resource as *reading to learn* rather than *learning to read*.

This chapter will address all six phases of the reading process:

- Selecting the text
- Planning for reading
- Pre-reading
- Building academic vocabulary
- Interacting with the reading
- Extending beyond the reading

Educator Outcomes

After reading this chapter, educators will be able to:

- Implement reading to learn as a process that guides students in accessing content in an academic discipline.
- Deepen students' reading comprehension using strategies that help students read to learn.
- Develop metacognition by drawing attention to reading to learn as a process.
- Empower students to strive for college and career success by developing reading skills.

Pre-Reading Reflection Questions

- How do I engage students in the reading process to access information in academic texts?
- How can I support students as they become strategic in gaining content knowledge from academic texts?
- How does the reading process foster academic and career success?

Reading at a deeper level can mean a variety of different things depending on the instructor's objective(s). Based on Costa's Levels of Thinking, diving deeper can involve moving from Level 1 (gathering information) to Level 2 (processing that information) and Level 3 (applying the content). When diving deeper in text, for example, students go beyond understanding the written words on the page by making personal connections, restating arguments or assertions, summarizing claims, or predicting events. Deepening reading comprehension can include making inferences, explaining a concept using different contexts with different variables, judging ideas based on specified criteria, creating a logical plan to prove or support the information, or forecasting new information.

THE READING PROCESS:
Phase 1 – Selecting the Text

A "text" can include an academic textbook, fiction or nonfiction book, article, magazine, online material, or visual work such as an image, graph, chart, or infographic.

Educator Rob Weir (2009) captured the essence of students' college reading when he stated that any assigned book is "useful only insofar as students actually crack the cover and consume the contents." When selecting texts for students, it is important to choose "appropriate material" that is commensurate with what they "need to know" (Weir, 2009). Instructors should choose texts with an eye toward both content and structure, selecting readings that lend themselves to the teaching of reading strategies and/or other academic skills.

It is important for the instructor to consider the following elements when selecting a reading.

- Determine the course objectives and student learning outcomes.
    - What desired content will target those objectives?
    - Will the text develop, enhance, and/or extend course concepts/objectives?
- Read for a deep understanding and insight into what the author is saying and doing in the text. Ask whether the author's insights support the course objectives.
- Will the text challenge students at the appropriate level?
- What is the length of the text, and will students be asked to read a section or the entire text?
- Does the text include a single perspective or multiple viewpoints?
- Does the text present a variety of types of evidence and support for the content?
- If appropriate, does the text provide and present ideas in a visual or graphic way?
- How will students be expected to interact with the text?
    - Can students make use of digital technology to support their reading?
- Is the text culturally relevant?
- How will the text develop students' academic literacy?

THE READING PROCESS:
Phase 2 – Planning for Reading

Planning for reading involves understanding the expectations of the assignment and the purpose of the reading. One way to express expectations is by using prompts, which can guide students as they approach reading. Prompts can be either educator- or student-generated.

Educator-Prepared Purpose

To enhance students' understanding and deepen their comprehension, instructors can support students by guiding them through purposeful reading. Educator-prepared prompts that communicate expectations, indicate the reading task, and guide students' thoughts during the reading process can help students glean the purpose of the reading.

When planning for reading, educators should consider:

- What is the reason for assigning this particular text/section? What will the students know or do after they have completed the reading?
- Which elements or sections of the text are particularly challenging?
    - What academic skills or strategies will support students in understanding the more challenging elements or sections?
- How will I explicitly teach reading strategies for and with this text?
    - What pre-reading strategies can students use to prepare to read the text?
    - What reading strategies can students use to stay engaged during the reading?
- How will I support students as they read the text?
- How will students demonstrate that they comprehend the text?

Before creating a prompt, educators should consider:

- What do I want the students to understand before reading?
- What do I want the students to do while reading?
- What will students do after they read?

Constructing a Reading Prompt

Educator-generated prompts outline the expectations for reading and define what the students should be thinking about and doing during the reading. In addition, the instructor can guide students in their thinking to prepare them to extend beyond the reading. The table below can guide instructors as they create a reading prompt.

Key Elements	Examples
Purpose: The purpose provides background information or isolates information to be focused on during the reading.	Recently, there has been a lot of discussion about whether postsecondary education should cater to a student's vocation or whether it should focus on a broad-based liberal arts education.
Set the reading task: Setting the reading task identifies the strategies that will be most beneficial for the task. Specify words or concepts the reader should circle, highlight, or underline.	Read the article and mark the text. As you read: • Circle key terms that relate to the pursuit of a vocation or a liberal arts education. • Underline the author's claims. • Make note of the implication this issue creates for you as an instructor.
Outcome: The outcome provides a meaningful goal to extend questions, comprehension, and application beyond the text.	After you read and mark the text, be prepared to engage in a Socratic Seminar.

Deconstructing a Reading Prompt

Deconstructing a reading prompt builds students' critical thinking skills. As students become more autonomous and adept at reading, they can start to anticipate purpose and create their own reading prompts.

Student-Prepared Purpose

In the event the instructor does not prepare or communicate a reading purpose, students can guide their own reading in a variety of ways.

- Students can ask instructors to clarify and focus the reading, asking questions such as the following:
    - *What would you like us to know and understand?*
    - *What strategies should we employ to read the text?*

- Students can create prompts that will guide their reading. Students can ask:
    - *What is the author saying?*
    - *What is the author's purpose for writing this section/text?*
    - *What am I to understand from this section/text?*

- Students can use the text to guide their reading.
    - Titles/subtitles – Students can ask:
        - *How can I reframe the title/subtitle into a question that can be answered?*
        - *How can I use the organization of the titles and subtitles to understand the reading?*
        - *How can I understand the broader questions of the chapter through the titles/subtitles?*
    - Review questions – Students can ask:
        - *Are there review questions at the beginning or end of the section or chapter?*
        - *How can I use the review questions to guide my reading and enhance my understanding of the text?*
        - *What prior information do I need to know to answer the review questions?*
    - Key concepts – Students can ask:
        - *Are there key concepts provided in the section/chapter?*
        - *How can I use the key concepts to guide the reading?*
        - *Can the key concepts be rewritten into questions?*
    - Previews and summaries – Students can ask:
        - *Are there previews and summaries provided in the section/chapter?*
        - *How can I use the previews and summaries to guide my reading?*
        - *Can I rework the previews and summaries into questions?*
        - *What critical information is provided in the previews and summaries?*
    - Connections – Students can ask:
        - *What connections can I make from the information in the book to what we are learning in class?*
        - *How is the information connected to what I have learned in previous classes?*

INSTRUCTIONAL PRACTICE:
Deconstructing a Reading Prompt

Deconstructing a reading prompt is a strategy that builds critical thinking skills and student engagement. It encourages students to identify context and outcomes as they engage in the reading.

Instructional Objective

- Students will gain deeper comprehension of a text by creating a reading framework and mindset through deconstructing a reading prompt.

Guiding Question

- How can I ensure that students' purpose for reading is aligned to the learning objective(s)?

Process

Time to implement: *Varies depending on instructor objectives and learner outcomes; 7–10 minutes*

- Provide students with a reading prompt.
- Guide students through the three parts of the prompt:
    - Ask students to determine the purpose for reading. Why are students reading this text?
    - Ask students to determine the reading task. What should students to do while they are reading?
    - Ask students to contemplate the outcome of the reading task. What will students be doing with the information after they have read?

THE READING PROCESS: Phase 3 – Pre-Reading

When students pre-read, they activate prior knowledge to predict what they will learn and begin to accept new information (Pritchard, 2008). Pre-reading builds a conceptual framework for understanding information: "If you build the big picture before you start, you begin reading the text with a conceptual framework already in place. Then, when you encounter a new detail or a new bit of evidence in your reading, your mind will know what to do with it" (Austin, 2007, as cited in Nordquist, 2017). By building a mental framework, pre-reading increases students' motivation to complete the reading, and builds their capacity to understand information.

There are two forms of pre-reading: *inside* and *outside* the text.

Pre-Reading Inside the Text

Pre-reading inside the text involves working within the format and words of the chapter.

- **Surveying the text:** Invite students to report on what they see in the text and consider the structure (titles, subtitles, sections, and subsections).
- **Noting organizational signals:** Ask students to look at the format of the text. What is the physical layout of the chapter? Are there different fonts for sections versus subsections? Are there bold or italicized markings? Does the author use larger font for certain titles or subtitles?
- **Predicting the main idea:** Guide students as they turn headings and subheadings into questions. Can students predict the main idea from their questioning of the text? Reading the first and last paragraphs of the text's sections will also aid students in predicting the main ideas.
- **Previewing reading aids:** Encourage students to look through the text for an introduction, summary, vocabulary words, visuals, and other textual support. Inform students that previewing reading aids is a way to activate prior knowledge.
- **Connecting visuals to text:** Instruct students to look at the text's visuals. Invite students to begin to connect the visuals to the surrounding text.

Pre-Reading Outside the Text

Pre-reading outside the text is the work a student does to draw meaning from and engage with the outside world. Nonlinguistic items, an "image walk," realia (artifacts or found objects), videos, political cartoons, images, or even a quickwrite connecting what students already know about a topic are all ways to integrate pre-reading outside of the text and activate prior knowledge.

INSTRUCTIONAL PRACTICES: Pre-Reading

This instructional practice will encompass the following pre-reading strategies: Pre-Reading Inside a Text; Predicting the Main Idea; Previewing Reading Aids; Connecting Visuals to Surrounding Text; and Vocabulary Awareness Chart.

Instructional Objective

- Students will analyze internal and external text structures and features through pre-reading practices.

Guiding Question

- How can I guide students through the process of pre-reading inside and outside a text in order to comprehend content at a deeper level?

Resources

- *Student Resource: Pre-Reading Inside a Text*
- *Student Resource: Predicting the Main Idea*
- *Student Resource: Previewing Reading Aids*
- *Student Resource: Connecting Visuals to Surrounding Text*
- *Student Resource: Vocabulary Awareness Chart*

Process

Time to implement: *Varies depending on instructor objectives and learner outcomes; 5–7 minutes*

Pre-Reading Inside a Text

- Use the *Student Resource: Pre-Reading Inside a Text* as a guide for students as they look at the format of the text.
- Model how to scan a text.
- Instruct students to scan the title, subtitles, organizational signals, visuals, and reading aids in the text.
- Think aloud so students are able to follow the instructor's thought process. A document camera might be useful in this step so students can follow along in the text as the instructor is verbalizing thoughts.

Reading aids are provided by the author to guide the student in their reading. For example, a reading aid can be an introduction, summary, or vocabulary words defined in the margin.

Predicting the Main Idea

- Use the *Student Resource: Predicting the Main Idea* to aid students as they seek to predict the text content.
- Instruct students on how to predict the main idea before they read.
- Guide students as they read the title and subtitles, the introduction, summary, and first and last paragraphs of sections to make predictions about the text.

Previewing Reading Aids

- Use the *Student Resource: Previewing Reading Aids* to peruse the text, reading and analyzing the included reading aids.
- Instruct students to read the chapter introduction, summary, learning outcomes, review questions, graphics, and other text guides provided by the author.
- Ask students to analyze why the author included the reading aids. Invite students to think about how these aids help readers understand the text.

Connecting Visuals to Surrounding Text

- Guide students as they use the *Student Resource: Connecting Visuals to Surrounding Text* to determine how the visuals relate to the main concepts.
- Instruct students to scan visuals and read captions and explanatory information in order to connect the visual to the text.
- Invite students to think about the purpose of the visuals—why is each visual included in the chapter, and why is it presented in particular sections?

Vocabulary Awareness Chart

- Encourage students to use the *Student Resource: Vocabulary Awareness Chart* to guide their search for unfamiliar vocabulary words.
- Encourage students to pre-read the text, looking for unknown or unfamiliar words.
- Invite students to assess their knowledge of the words and determine definitions.

For more information on defining vocabulary words, see page 174.

Pre-Reading Inside a Text

Use the left-column questions to guide the pre-reading.

Surveying the Text	
What is the title of the text? Are there subtitles?	
Are there sections of the text? Are there subsections?	
Are there other items about the text you notice?	

Noting Organizational Signals	
What is the physical layout of the chapter?	
Are there different fonts to introduce sections or subsections?	
Are there bold or italicized markings?	
Does the author use larger font sizes for titles or subtitles?	
Are there other items you notice?	

Predicting the Main Idea	
Turn headings and subheadings into questions.	
Can you predict the main idea? After reading the first and last paragraphs, does your prediction change?	
Are there other items you notice?	

Previewing Reading Aids	
Look through the text for the introduction and summary. What do they say?	
Are there vocabulary words that are unfamiliar? How can you decipher them?	
Are there visuals? Which features are unique to the specific text structure/genre you are perusing?	
Are there other items you notice?	

Connecting Visuals to Text	
What visuals do you notice? Which features are unique to the specific text structure/ genre you are perusing?	
Are there other items you notice?	

Predicting the Main Idea

Title	
Read the title.	
What is your prediction for the main idea?	
What information about the content, perspective, and audience can you gain from the title?	

Text	
Scan the text: read the title and any subtitles; look at the visuals and graphs; scan for vocabulary words.	
What is your prediction for the main idea?	

First and Last Paragraphs	
Read the first and last paragraphs.	
What is your prediction for the main idea?	

Prediction	
What is your overall prediction?	

Previewing Reading Aids

Types of Reading Aids

What types of reading aids are there? Are there chapter summaries, visuals, review questions?

Analyzing Reading Aids

Why are the reading aids provided? How do they help the reader understand the text?

Activating Prior Knowledge

What prior information can you activate after previewing the reading aids?

Connecting Visuals to Surrounding Text

Describe or reproduce the visual.	
What is the visual illustrating?	State the purpose of the visual.
What do the visual's label and caption say?	How does the visual connect to the text?

Adapted from: Bean, J. C., Chappell, V. A., & Gillam, A. M. (2007). *Reading rhetorically.* Boston, MA: Pearson Longman.

Vocabulary Awareness Chart

Scan the title, subtitles, captions, reading aids, and first and last paragraphs, looking for words that seem important or are "key" to understanding the text. A key concept is one that "unlocks" the meaning of the text.

Word	Know it	Seen it; Don't know it	Don't know it	Definition
	☐	☐	☐	
	☐	☐	☐	
	☐	☐	☐	
	☐	☐	☐	
	☐	☐	☐	
	☐	☐	☐	

Adapted from: Goodman, L. (2001). A tool for learning: Vocabulary self-awareness. In C. Blanchfield (Ed.), *Creative vocabulary: Strategies for teaching vocabulary in grades K–12* (p. 20). Fresno, CA: San Joaquin Valley Writing Project.

INSTRUCTIONAL PRACTICES: Pre-Reading Outside the Text

Pre-reading outside a text can involve activating prior knowledge, connecting ideas from other classes and contexts to inform the understanding of the text, and researching new information to understand the text at a deeper level. This instructional practice will encompass the following pre-reading strategies: KWLA; Quickwrite; Making Connections Through Language; 30-Second Expert; and *Before* and *After* Reflection.

Instructional Objective

- Students will increase metacognition for critical reading by being strategic in using a variety of strategies for pre-reading outside the text.

Guiding Question

- How can I use various strategies to guide students through the process of pre-reading outside a text in order to comprehend the content at a deeper level?

Resources

- *Student Resource: Making Connections Through Language*
- *Student Resource: Before and After Reflection*

Process

Time to implement: *Varies depending on instructor objectives and learner outcomes; 7–10 minutes*

KWLA

- For information on the KWLA instructional practice, see Chapter 3: Inquiry, page 74.

Quickwrite

- For information on the quickwrite instructional practice, see Chapter 2: Writing to Learn, page 33.

Making Connections Through Language

- Invite students to use the *Student Resource: Making Connections Through Language* to activate prior knowledge by filling in the table in order to make connections among words.
- Ask students to think about key words or concepts in and around the text to help them gain understanding of the text.
- In random fashion, write key words on the whiteboard. Instruct students to create sentences using two or more key words.
- Instruct students to find connections among the words.
- Invite students to share their connections with the class.

30-Second Expert

- Instruct students to perform a quickwrite about the information in the text that will be read.
- Ask students to form pairs.
- Invite one partner to begin sharing their quickwrite. For 30 seconds, the first partner explains what they know about the topic. The second partner actively listens.
- After 30 seconds, the partners switch roles. The second partner then uses 30 seconds to explain their quickwrite and what they know about the topic, while the first partner actively listens.

Before and After Reflection

- Use the *Student Resource: Before and After Reflection* to guide students through this type of reflection.
- Create a prompt about the reading.
- Before students pre-read the text, instruct them to respond to the prompt in a quickwrite.
- After a few minutes of writing about the prompt, guide the students in pre-reading activities.
- Inform students to set the reflection aside until after they have read the text.
- After they have read the text, instruct students to again respond to the prompt in a quickwrite.
- Debrief by inviting students to compare and contrast their *before* reflection and *after* reflection. The following questions can be posed to students.
    - *What do you notice?*
    - *How has your understanding deepened as a result of the Before and After Reflection?*

Making Connections Through Language

Identify key words in the text and write one word in each box. Use as many as possible of the key words you listed to create one or two sentences. Ensure that the sentences are coherent and the utilized key words create interrelated connections.

Before and After Reflection

Before and After Template:

Before the Reading:

Before reading _____ [title], I know _____

about _____ [content]. I have come to know that because

_____ and _____.

I predict the text will be related to what I already know because _____

_____.

After the reading:

After reading _____ my view of _____

has/has not changed. I have deepened my knowledge of _____ because

_____. My prediction was/was not accurate because

_____.

Reflection Template: Compare and Contrast

In synthesizing my understanding about _____ [the topic],

before and after reading the _____ [type of text] by _____,

I cemented, changed, expanded my knowledge of _____. Before interacting

with the text, my background knowledge consisted of _____.

After the reading, however, my understanding _____ since _____

_____. Based on _____

_____, my prediction was/was not confirmed because

_____.

Adapted from: Bean, J. C., Chappell, V. A., & Gillam, A. M. (2007). *Reading rhetorically.* Boston, MA: Pearson Longman

THE READING PROCESS:
Phase 4 – Building Academic Vocabulary

Building academic vocabulary is a recursive, metacognitive process that can occur at any time during the reading process. It engages background knowledge, improves reading comprehension (McKeown & Beck, 2004, as cited in Townsend, 2009; Lesaux, Kieffer, Faller, & Kelley, 2010), and aids overall academic achievement (Marzano, 2005).

Building academic vocabulary is multidimensional and complex. For students to understand academic vocabulary, multiple exposures and opportunities for using the words should occur (Townsend, 2009). Marzano and Pickering (2005) explained the six steps for building academic vocabulary:

- Provide a description, explanation, or example of the new term. This involves moving beyond a dictionary definition of the term. Providing an experience, context, story, or background information for the term will allow the student to understand and integrate the term.
- Ask students to restate the description, explanation, or example in their own words. Ensure that students understand the term and are not just repeating what the instructor has stated.
- Encourage students to create a picture, symbol, or graphic representing the word. Provide examples of depictions of terms.
- Engage students in activities that use the word and add to their knowledge of the term. Use cognates, root words, translations, sorting, classifying, or comparing to aid in word understanding.
- Invite students to discuss the word. Discussing and reviewing the new words with a partner allows students to identify points of confusion.
- Involve students in use of the words. Encourage them to use the words in nonthreatening contexts.

INSTRUCTIONAL PRACTICE: Inside/Outside/Outside

Often, students struggle with academic texts when the text includes terms that are unfamiliar. Building vocabulary is fundamental to helping students develop their ability to read to learn and fully engage with the content. As such, vocabulary enrichment as part of reading to learn instruction is a pivotal skill that needs to be developed in all students.

Instructional Objective

- Students will build academic vocabulary using the inside/outside/outside strategy.

Guiding Question

- How can I guide students as they seek to understand academic vocabulary using the inside/outside/outside strategy?

The Vocabulary Awareness Chart on page 169 in this chapter is a resource that can be used with this instructional practice.

Process

Time to implement: *Varies depending on instructor objectives and learner outcomes; 10–12 minutes*

- Instruct students to identify and highlight words they are not familiar with.
- Use the inside/outside/outside strategy (Frey & Fisher, 2009) to build understanding:
    - **Inside:** Guide students as they look at the actual word (inside the word) for clues to the meaning. For example, are there prefixes or suffixes? What is the root or base of the word? Are there cognates or word families?
    - **Outside:** Instruct students to look just outside the word for context clues to the meaning. Based on the surrounding context, can students make an educated guess as to the meaning?
    - **Outside:** If students still do not comprehend the meaning, students can look "outside" the text using resources such as dictionaries, thesauruses, glossaries, or the internet to decipher the meaning.

THE READING PROCESS:
Phase 5 – Interacting With the Reading

Most of the critical reading process is spent interacting with the text. Skilled readers are not passive; rather, they are active participants during the actual process of reading—thinking, imagining, wondering, and evaluating as they move through the text. It is important for educators to be intentional when modeling and guiding students during this critical phase, as all students can benefit from explicit instruction.

Interacting with the text aids students' attention, engagement, and comprehension. By being active readers, students notice when they are confused or unsure about the meaning of the material. Reflecting on these gaps in comprehension allows students to clarify and seek support as soon as it is needed. Interacting with the text while reading also increases students' engagement because they are processing the information as they read, which aids both their comprehension and their ability to anticipate and reflect on the content.

Strategies for Interacting With the Reading

In addition to the instructional practices on the following pages, the discussion strategies listed below are effective for interacting with the reading of texts.

Jigsaw

Participating in a jigsaw is an excellent way to create a collaborative reading experience for students. Student groups are created, and the text is divided. Students then group again according to text section and interact with their text portion, becoming an "expert" in that section. Students return to their original groups to collaborate with peers and deepen their comprehension. See page 115 for information on the jigsaw strategy.

Hatful of Quotes

Having students participate in a Hatful of Quotes activity is an excellent way to engage them in reading. Pre-selecting quotes for students to focus on during reading encourages interaction with the sections of text, as well as collaboration as the students build understanding through successive compilation of quotes. See the *AVID for Higher Education: High Engagement Practices for Teaching and Learning* webpage on MyAVID for more information regarding the Hatful of Quotes strategy.

INSTRUCTIONAL PRACTICE: Thinking Aloud With Text

Thinking aloud with text can increase students' comprehension of the information. This metacognitive activity empowers students to reflect on the process of reading.

Instructional Objectives

Students will:

- Develop reading comprehension tools by practicing strategies modeled by instructors through Think-Alouds.
- Self-monitor use and effectiveness of reading comprehension strategies.
- Engage in authentic reading experiences.

Guiding Questions

- How can sharing my thinking process aloud support my students' proficiency in using reading comprehension strategies?
- How can I help students metacogitate and develop the ability to monitor their reading?
- How can I provide opportunities for students to engage in authentic reading experiences?

Process

Time to implement: *Varies depending on instructor objectives and learner outcomes; 10–15 minutes*

- Model thinking aloud by reading the text and pausing occasionally to verbalize thoughts.
- Ask students to follow along and listen to how meaning is constructed.
- Request that students pair up and continue reading the remaining text. Invite them to take turns reading and thinking aloud.
- Debrief by asking the class what they discovered about the process.

INSTRUCTIONAL PRACTICE: Marking the Text

Marking the text can be difficult for postsecondary students because in high school students are often highly discouraged, if not forbidden, from writing in their books. There is a common misconception among students that if they rent books or desire to resell at the end of the term, they cannot mark in the books. Generally, this is not accurate as publishers allow light markings and highlighting. Encourage students to contact their bookstore for their institution's book return policy.

Students can use sticky notes to mark their texts in a non-permanent way. Additionally, using digital versions of texts, if available, allows for easy marking.

A key term is a word or phrase that unlocks the meaning of the text.

A claim is an author's argument that is supported by evidence.

Marking the text is a hallmark of AVID's interactive reading strategy. Marking the text can be applied with any discipline, content, and text. It allows students to isolate essential information for easy reference at a later time. Students can use marking the text to aid in connecting sections of text, investigating claims, evaluating evidence, analyzing sections, and writing summaries.

As the name implies, marking the text involves students annotating the text. To mark the text, students number paragraphs, circle key terms, and underline arguments. At the end of this process, the markings can be used to create focused notes (Nicholson-Preuss, 2013; LeMaster, 2011). There are three steps to marking the text:

- Number the paragraphs in the section prior to reading. Numbering paragraphs enables a student to refer to a part of the reading easily. Numbering also allows students to become acquainted with the text structure.
- Circle key terms. Students often struggle with identifying key terms, especially when some terms may be unfamiliar.
- Underline the author's claims. Students may struggle with identifying claims. Depending on the text, students may need support with this aspect of marking the text.

There are additional ways to isolate information (Clunis, 2013, as cited in Nicholson-Preuss, 2013).

- Bracket information. When underlining has already been used, students may use brackets to isolate evidence or other relevant information. What counts as relevant information depends on the text and the instructor's objectives.
- Write labels in the margin. Students can write labels in the margins by double underlining and drawing a vertical line along the edge of the text to isolate the section of text being labeled.
- Box words to identify different words than were circled. The selection of words to be boxed will depend on the text and the instructor's objectives.

Instructional Objective

- Students will interact with and/or analyze the text using the strategy of marking the text.

Guiding Question

- How can I guide students as they seek to understand and apply marking the text strategies?

Process

Time to implement: *Varies depending on instructor objectives and learner outcomes; 10–15 minutes*

- Explain to students the value of marking the text.
- Explicitly instruct the students on how to identify and number paragraphs. One way to identify and number paragraphs is to have the class verbalize the first word of each paragraph. Then, using a document camera, the educator can model numbering each paragraph.
- Instruct students on how to identify essential information in the text. Support students as they seek to identify key terms/concepts and claims.
- Model the process of marking the text using a document camera. Think aloud as you mark.
- Guide students as they mark a section of the text as a class. Invite students to pair with a partner and mark the next section together.
- Debrief by engaging students in a discussion, asking:
    - *Why would readers want to use this strategy?*
    - *How did this strategy improve your comprehension?*
    - *How could you use this strategy in this course? In other courses?*

Designed for teacher assistants (TAs) and lecturers in the San Diego State University Lower Division Writing Program, the Marking the Text strategy is modeled and practiced in a series of weekly meetings called “Issues in Teaching Composition” during the first semester of teaching.

INSTRUCTIONAL PRACTICE: Writing in the Margins

Writing in the margins identifies and defines common ways readers interact with the text while they read. Readers use the margins of their texts to record their thoughts and ideas. There are six common purposes for markings:

- Visualizing
- Summarizing
- Clarifying
- Connecting
- Responding
- Questioning

Readers write in the margins to be actively engaged while reading. They seek to understand content at a deeper level by using six common markings.

Instructional Objective

- Students will document thoughts and ideas regarding the reading, using the strategy of writing in the margins.

Guiding Question

- How can I empower students to more deeply understand complex texts using writing in the margins strategies?

Resource

- *Student Resource: Writing in the Margins: Six Strategies at a Glance*

Process

Time to implement: *Varies depending on instructor objectives and learner outcomes; 7–10 minutes*

When instructing on the six ways to write in the margins, it is helpful to introduce each step individually. As students become more comfortable with the strategy, the instructor can add other approaches (e.g., begin with visualizing, then move to summarizing, etc.).

- Define and explain the importance of writing in the margins.
- Define each of the common markings:
  - Visualizing – Visualize what the author is saying; draw a visual to represent the idea. When visualizing, ask:
    - *What does this look like?*
    - *How can I draw this idea?*
  - Summarizing – Summarize paragraphs or sections to keep track of essential information. When summarizing, ask:
    - *What is the paragraph about?*
    - *What is the author doing?*
  - Clarifying – Clarify complex ideas through analysis, synthesis, and evaluation to increase understanding of a text. When clarifying, ask:
    - *What do the key terms mean?*
    - *Do I need to reread this section to understand?*

- Connecting – Connect ideas to the section, to the text, to life, and to the world to increase comprehension of the text. When connecting, ask:
    - *How can I connect the ideas in this section to other sections or the text?*
    - *How does this relate to my life and to the world?*
- Responding – Respond (personally or academically) to ideas in the text to increase comprehension and engagement. When responding, ask:
    - *How does the information in the section make me feel?*
    - *How does the author present the claims and support them with evidence and data? What do I think about that? What do I agree/disagree with?*
- Questioning – Question the ideas in the text and your understanding of the information. When questioning, ask:
    - *What is the author saying and doing in this section?*
    - *What do I understand?*
    - *What is the purpose of this section?*

Writing in the Margins: Six Strategies at a Glance

Visualizing:

Visualize what the author is saying; draw a visual to represent the idea.

When visualizing, ask:

- What does this look like?
- How can I draw this idea?

Summarizing:

Summarize paragraphs or sections to keep track of essential information.

When summarizing, ask:

- What is the paragraph about?
- What is the author doing?

Clarifying:

Clarify complex ideas through analysis, synthesis, and evaluation to increase understanding of text.

When clarifying, ask:

- What do the key terms mean?
- Do I need to reread this section to understand?

Connecting:

Connect ideas to the section, to the text, to life, and to the world to increase comprehension of the text.

When connecting, ask:

- How can I connect the ideas in this section to other sections of the text?
- How does this relate to my life and the world?

Responding:

Respond (personally or academically) to ideas in the text to increase comprehension and engagement.

When responding, ask:

- How does the information in the section make me feel?
- How does the author present the claims and support them with evidence and data? What do I think about that? What do I agree/disagree with?

Questioning:

Question the ideas in the text and understanding of the information.

When questioning, ask:

- What is the author saying and doing in this section?
- What do I understand?
- What is the purpose of this section?

INSTRUCTIONAL PRACTICE: Rereading

Students engage in rereading to increase their comprehension of complex texts. Rereading is a skill that provides students with multiple opportunities to understand the complexity of the text.

Instructional Objective

- Students will clarify ideas and comprehend texts more deeply by developing habits and strategies for rereading.

Guiding Question

- How can I guide students to develop habits and strategies for rereading as they clarify ideas and deeply comprehend texts?

Process

Time to implement: *Varies depending on instructor objectives and learner outcomes; 10–15 minutes*

- Assign a short passage or section of text. Explain to students why the particular passage or section was chosen to reread.
- Establish purpose for the students' rereading (i.e., to clarify information, summarize ideas, identify meaning, etc.).
- Inform students the purpose of rereading.
- Instruct students to initially read the passage or section. Then, guide them as they reread the passage using one of the following purposes:
    - Clarifying information – Students can ask:
        - *What is the author saying?*
        - *What do I understand?*
        - *What don't I understand?*
    - Connecting visual information to surrounding text – Students can ask:
        - *What new information did I learn from the visual?*
        - *How does this visual information connect with surrounding information?*
    - Summarizing information – Students can ask:
        - *What are the key points, terms, claims, and/or ideas?*
        - *What is the purpose of this particular section?*
        - *What is the author doing in this section?*
    - Categorizing information – Students can ask:
        - *How are the ideas organized?*
        - *How are the ideas being compared?*

    - Pausing to connect information – Students can ask:
        - *What do I understand thus far?*
        - *What is the author communicating through these ideas?*
        - *How does this idea relate to other ideas in the text?*
- Ask students to take notes while they are rereading.
- Debrief by asking the class to discuss and reflect on the rereading process, using the following questions.
    - *How did this strategy improve your comprehension?*
    - *When would you use this strategy? Why?*
    - *How could you apply this strategy in other courses/content areas?*

INSTRUCTIONAL PRACTICE: Reciprocal Rereading

Reciprocal rereading is a strategy that uses a dialogue between the instructor and students in response to sections of text. The process involves questioning, predicting, clarifying, and summarizing portions of text.

Instructional Objectives

Students will:

- Actively construct meaning from sections of text while monitoring reading comprehension.
- Engage in dialogue about understanding of a text.

Guiding Questions

- How can I guide students as they construct meaning from sections of text while monitoring their reading comprehension?
- How can I engage students in academic dialogue surrounding a text?

Process

Time to implement: *Varies depending on instructor objectives and learner outcomes; 10–15 minutes*

- Instruct the students to perform a first read of their assigned text.
- Introduce and model the process of interacting with the text by rereading then pausing and responding.
- Ask the students to pair with a partner.
- Inform the students they will be taking turns rereading sections of the text. Then, they will pause and discuss a question from the following choices:
    - Summarize:
        - *What are the main ideas? Can I summarize? Paraphrase?*
    - Question:
        - *Who is involved in this section? What is the issue? When did it occur? Where did it happen?*
        - *How did the even occur? Why did the event happen as it did?*
        - *What questions do I have about the text?*
    - Clarify:
        - *What does this section mean?*
        - *Are there words/phrases I don't understand?*
        - *How can I clarify my understanding? What resources are available?*

    - Predict:
        - *What will happen in the next section?*
        - *What will this lead to?*
        - *What if I modify or change information? How will that impact the outcome?*
    - Visualize
        - *I imagine … from this section.*
- Students will repeat this process until the entire assigned section of the text is reread.
- Debrief by inviting students to discuss the following questions.
    - *How did this strategy aid your comprehension?*
    - *How did this strategy aid your academic dialogue skills?*

INSTRUCTIONAL PRACTICE: Pausing to Connect

Pausing to connect is a cognitive strategy that is used to encourage students to actively engage while rereading. Pausing to connect empowers students to pause at different times throughout the rereading and think about the relationships among sections, chapters, and the entire text.

Pausing to connect allows students to make connections, clarify ideas, question meaning, and synthesize concepts. It is an important skill to hone as students experience increasingly complex material.

Instructional Objective

- Students will actively construct meaning between and within sections of text while pausing to connect ideas.

Guiding Question

- How can I guide students as they understand and apply the strategy of pausing to connect ideas within a text?

Process

Time to implement: *Varies depending on instructor objectives and learner outcomes; 10–15 minutes*

- Instruct students to complete a first reading of their text.
- Using a document camera, model for students how to pause to connect while rereading a text.
- Demonstrate how to investigate or seek clarification by rereading sections of the text. Show students how to connect words or sentences to surrounding information.
- Verbalize and think aloud while rereading, pausing and connecting ideas to the surrounding text.
- Invite students to ask clarifying questions about the process.
- Show students how to physically connect ideas through use of arrows, lines, or other markings that show relationships.
- Invite students to form pairs. Encourage students to analyze and evaluate specific paragraphs, pausing and connecting the ideas.
- Encourage students to ask:
    - *What is the author's purpose?*
    - *What is the author doing and saying in this section?*
    - *What do I understand so far?*
    - *What information needs clarification?*
    - *How does this term connect to what the author is saying?*
    - *How does this section connect with the previous section(s)?*
    - *How does this section connect with the text as a whole?*
- Debrief. As a class, discuss:
    - *How does this strategy help you understand the text?*
    - *What information did you find useful?*
    - *How did the information connect and relate to other information in the text?*
    - *How does the information connect to concepts in the class?*

INSTRUCTIONAL PRACTICE: Highlighting a Text

Highlighting a text helps students isolate and locate important information, and allows students to organize content and make connections between and among ideas. Highlighting can increase students' comprehension of the reading.

Instructional Objective

- Students will isolate information that relates to the instructional purpose by rereading and applying highlighting tips.

Guiding Question

- How can I guide students as they highlight a text to isolate information and aid comprehension?

Process

Time to implement: *Varies depending on instructor objectives and learner outcomes; 10–20 minutes*

- Discuss the importance of highlighting a text to isolate and locate information. Understanding the purpose behind isolating certain information enables students to selectively highlight effectively.
- Inform students that they should have a question in mind before they read. If prompts have not been provided, instruct students to follow the planning and pre-reading processes to create questions. Some general questions include:
    - *How does this relate to what I know?*
    - *Have I seen this information before?*
    - *Can I relate this information to an example?*
- Instruct students to read a paragraph or "chunk" before highlighting.
- After students have read the chunk, invite them to write a question in the margin that relates to that section.
    - Ask students to inquire: *If I were an instructor, what would I want students to know about this section?*
- After students have questioned, guide them as they reread and selectively highlight the information that answers the question.
- Guide students as they check for understanding.
- Instruct students to review their highlighted text. Then, instruct students to cover the text so the question in the margin is showing. Ask students if they can answer the question based on their recollection of the highlighted text.
- At the end of each section, instruct students to review their highlights and summarize the information.

INSTRUCTIONAL PRACTICE:
Focused Note-Taking and Source Integration From a Single Source

Often, in postsecondary learning, students are asked to read a text and use the information in a new format. Students need to know how to consider information and apply it to support their ideas and arguments.

Instructional Objective

- Students will select and note meaningful information from a text to use as a reference for an academic purpose using the strategy of focused note-taking from a single source.

Guiding Question

- How can I encourage students to read and analyze a text, and then take notes on the content so they can apply the information?

Resource

- *Student Resource: Focused Note-Taking and Source Integration From a Single Source*

Process

Time to implement: *Varies depending on instructor objectives and learner outcomes; 10–15 minutes*

- Review the text with students.
- Instruct students to complete the sections of the *Student Resource: Focused Note-Taking and Source Integration From a Single Source.*
    - Ask students to record the reading purpose or prompt.
    - Invite students to complete the background information portion of the handout, noting any relevant biographical or background information.
    - Instruct students to look at the evidence and determine whether they should use a direct quotation or paraphrase/summarize the material. After they determine the quotation or paraphrase/summary to be used, instruct students to analyze how the quoted/paraphrased material relates to the topic.

Focused Note-Taking and Source Integration From a Single Source

Title of text: _____

Reading purpose or prompt: _____

Background information:

What is the title of the text?	
What is the author's full name?	
What other bibliographic information is available?	
Is the source a primary or secondary source?	
What is the historical context?	

Claim:

What is the author's central claim, topic or question?	

Evidence:

What is the topic or question?	Direct quotation, paraphrase, or summary of source material	Analysis that relates the quotation, paraphrase, or summary to the topic or question
The topic is:		
The topic is:		
The topic is:		

Pull it all together:

Using the sentence frame below, fill in the background information and evidence that supports a claim in the text:

In _____ [name of article], _____

[name of author], _____ , [insert brief background information], asserts

_____ [state the claim].

They state: _____

[state direct quotation, paraphrase or summary]. This supports the claim because

_____

_____ [state the analysis].

THE READING PROCESS:
Phase 6 – Extending Beyond the Reading

The purpose of reading instruction is to engage students in the text so they can comprehend the information at a deeper level. This will allow students to make connections between texts, across content areas, within their knowledge and experiences, and in the world.

Extending beyond the reading engages students in building their academic literacy and is a hallmark of AVID's philosophy. Transferring language, ideas, content-area knowledge, and critical thinking skills are all important for students' college success and career readiness.

Strategies for Extending Beyond the Reading

In addition to the instructional practices on the following pages, the discussion strategies listed below are effective for extending beyond the reading of texts.

Socratic Seminar

Participating in a Socratic Seminar is an excellent way to extend beyond the reading. Engaging in casual text-based discussion helps students engage deeply with content. See page 86 for information regarding Socratic Seminar.

Philosophical Chairs

Participating in Philosophical Chairs is an excellent way to extend beyond the reading. Participating in a debate-like discussion helps students engage deeply with content. See page 79 for information regarding Philosophical Chairs.

Resource

- *Instructor Resource: Reading Comprehension Sample Rubric*

Reading Comprehension Sample Rubric

Student: _____ **Date:** _____

Objectives:

Students will:

- Read and comprehend content by providing evidence, drawing conclusions, analyzing the author's perspective(s), and applying information to new tasks or content
- Communicate reading comprehension through oral or written records.

Skill Assessed	0 – 1	2	3	Score
Evidence	Student does not provide evidence from the reading (textbook, journal article, etc.) to show comprehension.	Student provides little evidence from the reading (textbook, journal article, etc.) to show comprehension.	Student clearly provides evidence from the reading (textbook, journal article, etc.) to show comprehension.	
Conclusion(s)	Student does not use evidence to draw conclusions.	Student uses evidence to draw conclusions; conclusions are inaccurate.	Student uses evidence to draw conclusions; conclusions are accurate.	
Analysis	Student does not identify the author's purpose or bias.	Student identifies the author's purpose.	Student identifies the author's purpose and/or biases.	
Application	Student does not apply analysis as a response to task(s) related to course or program content.	Student applies analysis as a response to task(s) related to course or program content.	Student applies analysis as a response to task(s) related to course and program content.	

Total: _____

INSTRUCTIONAL PRACTICE: 3-2-1 Summary

The 3-2-1 Summary (Zygouris-Coe, Wiggins, & Smith, 2004) is a versatile activity that can be used for many purposes. As a tool for extending beyond the reading, the 3-2-1 summary can be used to encourage students to quickly synthesize and summarize what they learned. Instructors can also use it as an informal check of students' understanding.

Instructional Objective

- Students will extend beyond the text through the 3-2-1 Summary strategy.

Guiding Question

- How can I use a quick strategy to gauge students' understanding of a text?

Process

Time to implement: *Varies depending on instructor objectives and learner outcomes; 5–7 minutes*

- Select a text and encourage students to read and mark it.
- Create a prompt asking students to do either of the following:
    - Summarize any text:
        - **3:** List three items you learned from the text.
        - **2:** Write two items you found interesting in the text.
        - **1:** Write one question you have about what you read.
    - Summarize a nonfiction or argumentative text:
        - **3:** List three points the author makes in the text.
        - **2:** Write two pieces of evidence the author provides for support.
        - **1:** Record one conclusion or claim the author makes from the text.

The 3-2-1 prompt can be tailored and revised depending on the instructor's purpose and objectives.

INSTRUCTIONAL PRACTICES: **Sentence Frames and Templates**

The connections between writing to learn and reading to learn should be taken into consideration. In Chapter 1, instructional practices are given that complement the practices listed below. Sentence frames and templates are tools for extending beyond the reading that provide an opportunity to scaffold learning for students. These tools guide students in the use of academic language, teach common rhetorical moves, and assess comprehension of text while students engage in deep reading. By providing students with sentence frames and templates that include language (discourse patterns, syntax, etc.) that is more formal in register and just beyond the students' language repertoire, students develop language that reflects what is read in the text. Thereby, they are empowered to use the language of the discipline as exemplified in the sentence frame and/or template (Bennett, Nagle, Scerrato, Castruita, & Platts, 2016).

Sentence frames can be used to help a student master academic language as they begin their writing. Similarly, templates help students become proficient with academic language. In contrast to the sentence frame, templates combine multiple sentences together to form a complete response. Templates engage students in lengthier exercises while assessing students' comprehension of a text. LeMaster (2011) noted that templates "strengthen students' ability to read and write about complex texts, giving them the tools and strategies to communicate effectively with an academic audience."

Instructional Objective

- Students will more deeply understand content by using sentence starters and templates.

Guiding Question

- How can I support students in their use of sentence frames and templates to bolster academic language and literacy as they seek to more deeply understand content?

Resources

These resources can be passed out to students or kept as educator resources.

- *Student Resource: Sentence Frames*
- *Student Resource: Templates*

Process

Time to implement: *Varies depending on instructor objectives and learner outcomes; 12–15 minutes*

Sentence frames may also be referred to as "sentence stems" or "sentence starters" when the beginning of a sentence is provided and students' task is to complete the sentence. "Sentence frames" is a more general term that encompasses sentence stems as well as frames in which components of a full sentence are provided, interspersed with blanks for students to fill in words or phrases.

Sentence Frames

- Explain how sentence frames are designed to develop and support academic responses.
- Write sentence frames on the whiteboard or project them on a screen.
- Using a document camera or other projection tool, model for students how to complete a sentence frame.
- Assign a section of text for students to read and analyze. Invite students to complete the sentence frame after they complete the reading.
- Debrief by asking students to discuss how this tool guides their use of academic language as they dive more deeply into texts.

Templates

- Define how templates are designed to develop and support academic language and literacy while diving deeper into texts.
- Select a text, determine the purpose for reading, and instruct students to read with that purpose in mind.
- Write the template on the whiteboard or project it on a screen.
- Using a document camera or other projection tool, model how to complete a template.
- Invite students to complete the template after they complete the reading.
- Debrief by asking students to discuss how this tool guides their use of academic language as they dive more deeply into texts.

Sentence Frames

This section offers sentence frames that developing writers could use to imitate the general writing features of college writing. The sentence frames could also be used to frame verbal responses during class discussions. General categories are used to organize the sentence frames.

Employing Metadiscourse

Good writers effectively guide readers through a text and provide contextual framing for different aspects of the piece. Recognizing metadiscursive writing is important for developing both reading and writing skills.

Writers can employ metadiscursive techniques in a variety of ways. Implementing text features such as context-specific vocabulary, thoughtful paragraphing, and metatextual elements such as titles and subheadings facilitates readers' comprehension of a text.

1. Framing Metadiscourse (also called "Metacommentary")

Use language referring to major sections of a paper, including phrases or sentences that tell readers what is going to happen in the text or what has already happened. They might be something like the following at the beginning of a paper:

- *This essay is organized in the following way: ...*
- *In what follows, the author shall ...*
- *This paper will ...*
- *It is the intent of this paper to ...*
- *The purposes of this research report are to discuss the methodology employed, present the results, and discuss the results in light of current theories.*

Use phrases or sentences that refer to what has already happened in the text and what will come next. Possibilities include:

- *In additional to the claim that _____, So far, Chua argues_____. Now, the paper will turn to ...*
- *The first part of this paper was devoted to Farmer's early life. The second part will focus on his accomplishments.*
- *A third argument relates to ...*
- *The most obvious objection to this is ...*
- *One result of this is ...*

Use words, phrases, or sentences that mark the conclusion of a paper or section:

- *In conclusion (or in summary), it is important to note that ...*
- *To sum up this section, ...*
- *Finally, it should be argued that ...*
- *Therefore, it can be concluded that ...*
- *Hence, the stern advice ...*

Adapted from Hyland, K. (2005). Metadiscourse: Exploring interaction in writing. London & New York: Continuum.

2. Focusing Metadiscourse

Use language that shows the writer's main ideas or principal claim(s):

- *The point of this essay is that ...*
- *The author's claim is ...*
- *This aids the author's conclusion that ...*
- *This is, in fact, the principal argument: ...*
- *The most important idea here is that ...*

Use language that writers utilize to talk about multiple sources in one paper:

- *Author X's argument on this point differs from Author Y's point for the following reasons ...*
- *Author X's phrase, _____, provides a good lens through which we may view Author Y's description of ...*
- *These two authors [name both] offer ...*
- *Author X's description of _____ clarifies [extends, complicates, or illustrates an idea]...*
- *With Author X's definition of _____, we can better understand ...*
- *Here is where Author X's discussion can be most useful: ...*
- *Although these authors are engaged in different projects, their work ...*

Use words, phrases, or sentences that mark the conclusion of a paper or section:

- *In conclusion (or in summary), it is important to note that ...*
- *To sum up this section, ...*
- *Finally, it should be argued that ...*
- *Therefore, it can be concluded that ...*
- *Hence, the stern advice ...*

3. Connecting Metadiscourse

Academic writers need to use words that connect information or arguments that have been presented to what will appear later. Often these occur within sentences, within paragraphs, or as paragraphs begin:

- Words or phrases that tell the reader that something related will be added to what has been written: *in addition, and, also ...*
- Words or phrases that tell the reader that there will be a change or contrast presented: *but, yet, however, nevertheless, on the other hand, another way of looking at this, instead, alternatively ...*
- Words or phrases that show a cause/effect relationship: *as a result, so, consequently, thus ...*
- Words or phrases that tell the reader that an example of what has been discussed will follow: *for example; for instance; to understand this, it is important to look at ...*
- Words or phrases that indicate the time discussed: *today, in the past, meanwhile, at the same time, there was a time when ...*

4. Explaining Metadiscourse

Use words or phrases that further explain an idea or concept:

- *This means that ...*
- *In other words, ...*
- *Namely ...*
- *In fact ...*
- *That is ...*

5. Attitudinal Metadiscourse

Use language that helps the reader understand how the writer feels about the topic being discussed.

Hedges*	Emphatics	Directionals
Words or phrases that show that the writer may be uncertain about what is being presented: • **Perhaps** this means that we should be more careful … • This finding **might** indicate … • It is **possible** that this argument is … • **Admittedly,** the reason … • It is **reasonable** to conclude … • **I concede** that … • **I accept** that fact that … • **I tend to agree** with …	Words or phrases that show that the writer is certain about something: • **It is clear that** the experts were wrong. • This is **not the case**. • This is **clearly important**. • **Of course**, most people would agree that … • **On one hand** … on the other • **While** ____ is true, it is less clear that … • **It is easy to** understand the struggle … • Author X's position does **not stand up** to criticism because … • Author X and Y are …	Words or phrases that ask the reader to do something: • **Imagine** having the financial resources to sponsor a student in college. • **Consider** how much has been spent on foreign assistance.

*Writers often hedge arguments unnecessarily. When possible, state a firm position and then support it with evidence from the text.

Templates

Sample 1

_____ [author's first and last name], in _____

[source], _____ [verb] that

_____.

It is important to consider _____

_____.

Sample 2

In the _____ [type of source] _____

[title of source], _____ [author's first and last name],

_____ [information about the author], _____

[verb] that _____

[claim]. This is a valuable point because _____

_____.

Sample 3

In _____ [title of text], _____

[author's first and last name] _____ [verb] that _____

_____ [claim]. The author _____ [verb that describes what the author is doing]

to _____ [describe what the author is saying].

_____ [author's last name] provides evidence that _____

_____ [evidence] and _____

_____ [evidence] to support the claim that _____

_____ [claim]. Further, _____ [author's last name] provides

evidence to refute the claim, such as _____

_____ [evidence to refute the claim] and

_____

[evidence to refute the claim]. I [agree/disagree] with the argument because

.

Post-Reading Reflection Questions

- How will I encourage students to utilize the reading process to access information in their academic texts?
- How will I empower students to use reading strategies as a springboard for learning academic content?
- How will I leverage the reading process to foster academic and career success?
- What are the next steps that will guide my work as I engage students in the academic reading process?

Conclusion

Reading is a core skill that fosters intellectual growth. In fact, reading has been referred to as the "gateway to success in education" (Fatiloro, Adesola, Hameed, & Adewumi, 2017, p. 106). Notwithstanding, research has shown that most undergraduate students do not complete assigned readings prior to coming to class (Burchfield & Sappington, 2000; Hoeft, 2012; Jenks, 2016). Reconciling these observations requires purposeful instruction to develop students' ability to read to learn. The instructional practices in this chapter provide educators with strategies and tools that scaffold the reading process across all disciplines, thereby "making transparent what good readers do" in order to move students toward a deeper understanding of academic material.

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Resources

Visit the *AVID for Higher Education: High Engagement Practices for Teaching and Learning* webpage on MyAVID for additional materials and resources.

Glossary

AVID: Advancement Via Individual Determination; a global nonprofit organization dedicated to closing the achievement gap by preparing all students for college readiness and success in a global society.

backward mapping: A strategy for analyzing an assignment or goal, breaking it down into major components and then into smaller tasks, as well as analyzing the resources and time needed to accomplish the tasks.

Carousel Brainstorming: A version of Collaborative Brainstorming in which groups of students move from station to station, contributing information and opinions in response to pre-determined questions/stimuli.

collaboration: The effective sharing of information among individuals.

collaborative structures: Effective methods to collaborate in a way that brings collaboration to life.

debrief: After completing an activity, taking the opportunity to reflect upon what went well, what was a struggle, and what will further empower students to celebrate successes and take responsibility for navigating opportunities for growth differently next time.

extension: Ideas for how to extend the lesson by increasing rigor, increasing scaffolding, or integrating technology.

Four Corners: A collaborative structure used as a tool for students to evaluate both ideas and products, check for comprehension, build expressive capacity and accountability, and build cohesion and community among classmates.

Gallery Walk: A sharing and processing activity used when students/groups are each creating a similar product. Upon completion, each student/group posts or places the finished product around the perimeter of the room. Students/groups then circulate around the classroom and review others' products, as though they were walking through a museum gallery.

GIST (Generating Interactions between Schemata and Text): A summarizing or comprehension strategy used to convey the essence or gist of a text as students focus on the main ideas or big picture of the text. The GIST statement or summary should include academic vocabulary specific to the content being summarized.

Give One, Get One: A version of Collaborative Brainstorming in which students first individually brainstorm responses to a prompt and then exchange ideas with their classmates.

graphic organizers: Present information visually. They are used to help clarify relationships among concepts and make abstract ideas more concrete.

guiding questions: Questions asked either by the teacher to guide students' thinking or by students to guide their own thinking; these questions help uncover the details of the text's function.

Helping Trios: A collaborative protocol in which trios of students respond verbally to a prompt, offer feedback on the responses, and then engage in open discussion.

inquiry: The process of revealing thinking through questioning, analyzing, and constructing knowledge and understanding.

Inside/Outside Circles: A collaborative structure in which students break into two equal groups. Groups form two concentric circles and face each other. Individual students speak to the partner across from them about a given prompt. After a set amount of time, circles rotate in opposite directions so that students are paired with a new partner and discussion.

Interactive Notebook: A metacognitive writing strategy that includes organized notes paired with reflective and metacognitive responses, either in graphic or written form.

journal: A writing tool that provides opportunities for students to engage in reflective and metacognitive responses.

learning log: A metacognitive writing strategy in which students reflect on what and how they learn, and then synthesize their thoughts in writing.

metacognition: Reflecting upon and directing one's own thinking; self-monitoring.

minute paper: A reflective writing-to-learn activity conducted in one minute or less that allows students to synthesize knowledge and ask unanswered questions.

One-Pager: A strategy in which students use a single sheet of paper to creatively express their comprehension of, reactions to, and connections with a specified topic, using a defined format.

organization: Self-management of materials, time, and thought.

organizational routine: The habitual use of organizational skills and systems, integrated into normal practices and procedures.

organizational skills: Specific expertise that students need in order to utilize organizational tools appropriately.

organizational system: An effective method for using one or more organizational tools together within a defined structure and purpose.

organizational tool: A resource such as a backpack, folder, notebook, spiral, planner (physical or digital), or binder (physical or digital, such as an eBinder) that is utilized to organize materials, time, and/or thought.

Philosophical Chairs: An inquiry-based strategy that is built on a prompt and to which contradictory positions exist; participants address these positions through deep, academic discourse in a structured, formal process.

planner: This is any organizational tool that supports students with managing time, documenting coursework, and recording commitments (inside and outside of school). Depending on a variety of factors (area of study/major; nature of use, and even regional terminology) planners may be utilized as a supplemental instructional tool.

quickwrite: A brainstorming and processing method in which students write nonstop for a short time, usually 3–5 minutes.

reading: Strategically gaining meaning, understanding, and knowledge from print and other media.

relational capacity: The degree of trust and level of safety among members of a group.

SMART goals: A framework to support goal setting by ensuring that goals are specific, measurable, action-oriented, reasonable, and timely.

Socratic Seminar: A structured, collaborative dialogue, focusing on a common text or resource, which students have analyzed and toward which they have prepared questions to spur the discussion.

Stage 1 Team Building: The early stage of community-building when individuals with varying experiences, motivations, backgrounds, and skill levels are brought together; students should participate in a variety of activities that are low-risk, high-comfort, and engaging in order to initiate the process of forming connections.

Stage 2 Team Building: A period of relational-capacity development often characterized by experiences that challenge students to move outside their comfort zones; students should participate in a variety of activities that are moderate-risk, moderate-comfort, and engaging in order to maintain a positive environment.

Stage 3 Team Building: The stage of relational development when students can problem solve and work through experiences that challenge students to move outside their comfort zones; students should engage in a variety of activities that are high-risk and low-comfort in order to increase their student-centered scope and sovereignty of the classroom.

Stage 4 Team Building: A group that has become self-directing, self-advocating, and self-monitoring—thereby actualizing their full potential; students should engage in a variety of activities that are very high-risk with low- to no-comfort, prodding them toward the highest levels of relational capacity.

Think–Pair–Share: A collaborative structure in which students think about a topic or question and then discuss with a partner to come to a better understanding of the topic.

WICOR: Writing to Learn, Inquiry, Collaboration, Organization and Reading to Learn; WICOR Strategies help students comprehend materials and concepts and articulate ideas at increasingly complex levels in any classroom on campus; methodologies can also be used to support the development of workplace skills that employers are looking for from new hires.

World Café: A collaborative strategy in which students rotate through varied small-group discussions in order to analyze issues, share their expertise, and engage in cooperative problem solving.

writing: A record of one's thinking or learning; a communication tool.

https://my.avid.org/curriculum

Index

Acknowledgments

AVID for Higher Education: High Engagement Practices for Teaching and Learning is an instructional resource that builds on AVID's more than 35-year history. As a result of this history and the connections that were made by school districts to institutions of higher education, college and university instructors and staff are now in positions to make a difference by modeling and implementing instructional practices for developing relational capacity and using the WICOR framework. As students progress through various programs leading to a certificate and/or degree, the contents of this book serve as a guide for research-based methodologies to support teaching and learning. Given the context of accountability in higher education, the strategies presented in this resource focus on engaging students to increase retention, persistence, and completion. The support that students in higher education need requires a closer look at providing not only the parameters for the exploration of instructional practices, but also the explanation of these practices. It is within these pages that theory and practice are bridged.

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