

1 **College Students with Disabilities: How Faculty Can Increase the Opportunities for**
2 **Student Success.**

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5 *Abstract: This article explores the growing number of students with disabilities enrolled*
6 *in postsecondary educational settings and the need for faculty to reconsider the format of*
7 *the traditional lecture by utilizing learning strategies and interventions that have proven*
8 *successful in the literature. Our goal was to select examples of three strategies (think-*
9 *pair-share, guided notes, and response cards) that can be blended purposefully in*
10 *lectures in different academic disciplines to increase the opportunities for student*
11 *success..*

12 **Keywords:** learning strategies, interactive lecture, guided-notes, response cards, think-
13 pair-share

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15 Research shows more students with disabilities are attending postsecondary
16 education currently than before. In fact, in 1999 Henderson reported that 10% of college
17 students included students with disabilities. Whereas Newman, Wagner, Cameto, and
18 Knokey, (2009) more recently reported estimates of up to 26% of students with disabilities
19 attending four-year colleges. However, it is not clear if this increase in access actually
20 leads to successful completion for students with disabilities (Shaw, 2009). In fact, it has
21 been reported that many of these students fail to successfully complete their education by
22 earning a degree, and instead choose to leave college early (Quick, Lehmann, & Deniston,
23 2003; U.S. Department of Education, 2012).

Acceptance into a postsecondary education program is a significant milestone for students, regardless if they have a disability or not. However, that is only the beginning of what could become a most difficult and disappointing experience. Most students need varying levels of support to be successful, and students with disabilities often need more purposeful and intentional support. Faculty is the single most important link between the institution and the student. The problem is faculty aren't always prepared to meet the needs of students, especially when learning of the needed accommodations often during the first class session or first week of a new semester. Therefore, the purpose of this article is twofold: (1) to examine the legislative and support differences that impact students with disabilities as they transition from high school to postsecondary education settings; and (2) to present examples of three strategies (think-pair-share, guided notes, and response cards) that can be blended purposefully in lectures in different academic disciplines to increase opportunities for student success.

Legal Framework Ensuring Access for Students with Disabilities

United States Public schools in K-12 settings are legally mandated to follow a specific process to identify, assess, and plan for determining services to ensure access to education for students with disabilities. While in school, K-12 students with disabilities are protected under the Individuals with Disabilities Education Improvement Act of 2004 (IDEA, 2004). IDEA mandates that students with disabilities be provided a free and appropriate education in their least restrictive environment. Therefore, students with disabilities are provided special education services that are documented by a joint professional and parent approved document called the individualized education program

(IEP). IDEA requires that continuous review of the IEP occurs each year, and a more in-depth review occur every three years. However, once these students graduate from high school, they are considered adults and the legal protection that they had as children still exist, but resides under different legislation. At the postsecondary education level, parents are no longer involved in a collaborative agreement with professionals in the educational arena. Additionally, there is no binding document that must be reviewed on a continuous basis. Instead, students with disabilities at the postsecondary education level must now prevail themselves to institutions informing them that they have a disability and would like to take advantage of their services unique to individuals with disabilities.

There are several laws that do protect students with disabilities from being denied access to an equal education at the college level (see table 1). The most well known laws are Section 504 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act Amendments Act (ADAAA) of 2008. According to both pieces of legislation, a disability is defined as a physical or mental condition that substantially limits major life activities, such as hearing, mobility, vision, learning, or communication. Furthermore, there is a record of the impairments, or the person is regarded as having an impairment. Two and four-year institutions of higher education are mandated to provide accommodations for the rising number of students with disabilities they accept. These laws provide protection from discrimination and provision of reasonable accommodations for students who qualify for services. Rusch, Hughes, Agran, Martin, and Johnson (2009) state that although clear legislative mandates exist, the promised postsecondary outcomes have not yet been fulfilled. Although, these laws provide guidance for institutions working with individuals with disabilities on campus, they are

not enough. For K-12 school settings, a prescribed set of procedures are in place to determine which students qualify for special services from the point of assessment to the IEP, which is implemented in the classroom setting. Although similar procedures exist at the postsecondary education level, they are more institution-specific in higher education settings. For example, a typical process might include the following:

- Student notes on admissions application that he/she has a disability
- Student seeks support from a disability services office
- Student provides documentation of a disability
- Disability services center reviews and prepares letter of accommodations
- Student presents letter to all instructors
- Faculty honor accommodations noted in the letter

While this process is a good one, the missing link is the faculty who are ultimately charged to honor the noted accommodations despite the fact they could be unaware of the needs while planning their courses. Because faculty are not involved with this process, they rarely become familiar with the issues facing their students with disabilities until after students are enrolled in courses and the semester unfolds (Lechtenberger, Barnard-Brak, Sokolosky& McCrary, 2012).

Lechtenberger, et al., (2012) assert that of those students with disabilities who choose to enter postsecondary education institutions, their experiences are primarily influenced by the interaction with faculty, staff, and other students, in addition to the other experiences gained by the time spent on a college campus. Yet, in all the connections, perhaps the most important is the interaction and relationship students form with their professors. However, even with the best of intentions and proactive actions,

providing accommodations should not be the sole responsibility of the faculty. Brinckerhoff, McGuire and Shaw (2002) emphasized the need for postsecondary institutions to improve their efforts to help students bridge the gap between secondary and postsecondary education. McGuire (2010) emphasized one of the most important attributes for students with disabilities attending 2-or 4-year institutions is the ability to function independently. For example, while well-intentioned parents often manage key aspects of a successful educational experience (studying, seeking the assistance of faculty and staff, self-disclosing, advocating for accommodations, and decision making) when students transition to postsecondary education, the students, as adults, are primarily responsible for the management of these important variables. In addition, upon entrance into postsecondary education, students are faced with one of the most important terms affecting how services are provided. The concept of *reasonable accommodations* is real and because of the subjective nature of this terminology, an open dialogue that includes the student is critical to the determination of the kinds and levels of support that is needed. In other words, students' voices are important. However, what about the actions of faculty members?

Although several explanations have been suggested as being responsible for the dismal trend for this population, perhaps the most relevant as noted earlier is the interaction between student and faculty and the issues related to this variable. More specifically, Greenbaum, Graham, and Scales (1995) have noted, "the most common institutional barrier cited by students with disabilities was lack of understanding and cooperation from faculty and administrators..." (p. 468). This lack of acceptance and understanding felt by students has impeded how students integrate into collegiate

environments and has also reinforced the stereotypical beliefs and discriminatory practices often displayed by both professors and fellow students (Gmelch, 1998; Lechtenberger, et al., 2012).

Broadbent, Dorow, & Fisch (2006) summarized recommendations from research that faculty could consider adopting as they prepare and deliver courses at postsecondary education institutions. Common accommodations for students with disabilities include: extended time, audiotaping lectures, note-taker or making the instructors' note available to students, allowing exams to be typed, read aloud, or dictated, adapting text material, permitting multiple methods of assessment, and allowing course substitutions. Additionally, teaching strategies such as cooperative learning, peer tutoring, guided notes, response cards in conjunction with purposeful management of the classroom environment could contribute positively to student success. Given the challenges that are inherent in navigating postsecondary education settings, it is plausible for students to be anxious about the education process and the likelihood of failure. However, failure is not the only option. Perhaps if faculty purposefully incorporate the following strategies as they teach and facilitate instruction, the potential for success for college students with disabilities and their peers would be immense.

Suggested Strategies

Think-Pair-Share. In delivering a repertoire of evidence-based comprehension strategies in the context of a first-year university course, Parr & Woloshyn (2013) highlighted the need for faculty to engage in comprehension strategy instruction at the postsecondary level. Findings (Parr & Woloshyn, 2013) suggest that age-appropriate instruction that is

explicit yet flexible can be integrated within existing course content successfully. Cooperative interactions among peers have proven to be effective ways for students to gain and demonstrate mastery of content knowledge (Kagan&Kagan, 2009). These interactions are age-appropriate, flexible , and is not content-specific. Although various definitions appear in the literature related to cooperative learning, the main premise is that cooperative learning relies on active student-centered engagement, instead of relying on passive instructor-directed lectures. In other words, students learn more when they participate in the learning process. Of course, the problem or task at hand is generated by the instructor, however, the engagement between the students is what drives the internalization of critical content. Incorporating instructional approaches that support cooperative interactions among students enhance their ability to strengthen their higher order thinking skills. Researchers have examined the use of various thinking structures (Barkley, Major, & Cross, 2014; Cooper & Robinson, 2011; Cretu, 2014; Johnson, Johnson, & Smith, 1998; Kagan&Kagan, 2009), that engage learners in working through information together to master content. Think-Pair-Share is an example of a common and easy to incorporate cooperative learning structure that has been successfully used with a variety of learners (Kagan&Kagan, 2009; Kalman, 2007; Millis, 2010). This learning structure is a great benefit for students in general, because not only do students with disabilities struggle with various content across college campuses, so do students who are not identified with any specific learning limitations. Engaging in cooperative structures like Think-Pair-Share, faculty can develop more opportunities with student-centered learning that could meet the learning needs of all the students in their class.

Think-Pair-Share engages students with material on an individual level, in

pairs, and finally as a large group. In this four-step process, students share their understanding of material at hand. The steps are as follow: First, the instructor poses a problem, and students are asked to think to themselves about the problem, in a specified amount of time. Second, they are instructed to write, or draw their responses. Third, students are asked to pair-up with at least one other student, preferably someone sitting near them, and share their responses. While sharing, students are asked to examine similarities and differences in their responses, and to note what part of the problem is still unclear. Fourth, the instructor calls on pairs to briefly summarize their thoughts to the entire class. In this way, students observe the various perspectives of approaching a problem, while the instructor then provides corrective information needed to ensure proper solutions to the proposed problem. Strategies like this provide learners with a bridge to better internalize their learning through social engagement and group problem solving. This is extremely beneficial for many students with processing difficulties who oftentimes have immature metacognitive strategies in thinking about their learning, and remembering key information in any given course. Kagan&Kagan (2009) offers variations of the Think-Pair-Share. One variation, in particularly, has students work in teams similar to the Think-Pair-Share, but is called Think-Pair-Square, where students work in teams following the same aforementioned steps. At the pairing step, teams come together. Kagan&Kagan see this as a more powerful structure because it increases the opportunities for participation and accountability.

Guided Notes. Guided notes were originally introduced for students who had problems learning and recalling information and were based on the perception that if students take

good notes and attend to them later, they will perform better on tests than students who only read the material, or listened to the instructor's lecture (Williams, Weil, & Porter, 2012). Guided notes can be defined as "teacher-prepared handouts that 'guide' a student through a lecture/discussion with standard cues and prepared spaces in which students can write the key facts, concepts, and/or relationships" (Heward, 1994, p. 304). Because note-taking can be a difficult task for some students, particularly those with learning or physical disabilities, the use of guided notes can give students a standard set of notes for future reference (e.g., tests and quizzes) as well as eliminate the possible frustration, lack of motivation, and off-task behaviors that may exist due to poor note-taking skills (Anderson, Yilmaz&Wasburn-Moses, 2004; Patterson, 2005). Guided notes are fairly easy for faculty to utilize in their instructional settings. Boyle (2001) asserted that note taking served two purposes for students: (a) Notes aid student understanding of lecture information, and (b) Notes serve as reference material for later study. Overall and quite broadly, when partially completed notes are made available to students, they provide a foundational instructional guide for students to follow. Students don't have to feel compelled to write everything the instructor says while at the same time trying to comprehend the concepts being presented and understand how the concepts fit into the larger contexts of learning. Moreover, research on the use of guided notes shows that when guided notes have been used, students were observed listening and being attentive to instruction while taking notes. In addition, their notes had more accuracy, were more completed, and their scores improved on quizzes and tests (Patterson, 2005). In fact, Peper and Mayer (1986) found a positive correlation between the amounts of notes taken and test scores.

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209 ***Response Cards.*** Response cards (RC) are cards, signs, or items that students hold up
 210 simultaneously to display their responses to each question or problem presented by the
 211 teacher (Heward, Gardner, Cavanaugh, Courson, Grossi, & Barbetta, 1996). Typically,
 212 students are given a small (9"x 11") write-on board and dry erase marker and are asked to
 213 write and hold up simultaneously their responses to each teacher question or problem.
 214 Maheady, Michielli-Pendl, Mallette, and Harper (2002) posit that the obvious advantages
 215 to this procedure are that all pupils can respond to each teacher question, the teacher can
 216 visually assess all pupils' understanding of questions/problems, and the activity itself
 217 (writing on a dry erase board) may be more fun than simply raising one's hand. The
 218 effects of response cards on elementary and secondary students' active response rates,
 219 academic performance on daily and weekly quizzes, and general satisfaction with
 220 instructional procedures have been examined and the findings show that when RC are
 221 used, students: (a) make significantly more academic responses, (b) score higher on daily
 222 and next day quizzes, as well as on review tests, and (c) generally prefer RC over more
 223 traditional teaching conditions (Cavanaugh, Heward, & Donelson, 1996). Armendariz and
 224 Umbreit (1999) also found that the use of RC significantly decreased the amount of
 225 disruptive behavior in a general education classroom. More recently, RC were found to
 226 be an effective intervention strategy for decreasing off-task behaviors while improving
 227 academic performance and positive outcomes for students with emotional and behavioral
 228 disorders (Patterson, 2008). RC were also found to be effective in increasing academic
 229 responding, opportunities to respond, and correct academic responses of students with
 230 mild intellectual disability (Cakiroglu, 2013). There are some significant advantages to

the use of response cards in instructional settings. For example, everyone participates when response cards are in effect. In addition, because each student response on the card faces the instructor, the instructor is the only one (sometimes with the exception of the student) who knows if the answer is correct or not. Without unnecessary (and unwanted) attention, the instructor can confirm or clarify concepts and continue teaching and students continue to participate in ways that are highly interactional and safe from ridicule or embarrassment.

Discussion and Conclusion

Effective teaching strategies are effective because they work in a variety of settings, for the majority of learners with multiple and varied learning styles, and across varying age and grade levels. Instructional strategies and interventions like think-pair-share, guided notes, and response cards have proven to be effective for learners with disabilities and they can be easily adapted and modified for learners in postsecondary education settings to achieve similar results. In addition to a focus on instruction, equally important to academic preparation is the knowledge about the ongoing evaluation of accommodations that assist students in maximizing their full potential (Webb, Patterson, Syverud, & Seabrooks-Blackmore, 2008). In other words, faculty can help fill the gaps that exist for students who are not aware of how to best to have their needs met or how to go about advocating for themselves during their college years and beyond. It is important to note, however, such programming is not delivered without effort by the instructor. Lectures are traditional and convenient in delivering content managed solely by the instructor to a large number of students irrespective of the academic discipline. It is a

traditional and comfortable approach utilized for many faculty. This approach, however, is passive and has little regard for differences in abilities and learning styles, age, cultural and linguistic diversity, and or disabilities. Postsecondary educational settings today are not as traditional as they once were. Therefore, faculty are encouraged to consider other approaches that will allow all students to interact with each other, to increase an awareness and understanding of their own through processes, and be active and successful participants in the learning process.

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 355 Table 1
 356 *Laws Protecting the Rights of Students with Disabilities in Postsecondary Settings*
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Law	Year	Provisions
Vocational Education Act (PL 88-210) and	1963	Provided for workforce education to include basic grants to states for vocational education.
Latest Amendment: The Carl D. Perkins Career and Technical Education Act of 2006, PL 109-270	2006	Developed stronger linkages between secondary and postsecondary programs such as tech-prep programs which integrate academic content
The Higher Education Act (PL 89-329)	1965	Provided funding for improving building capacity to serve extension and continuing education students.
Latest Amendment: Higher Education Opportunity Act of 2008, PL 105-244	2008	Provided funding for demonstration projects to ensure that students with disabilities receive a quality higher education; Created a National Center for Information and Technical Support for Postsecondary Students with Disabilities.
Section 504 of the Rehabilitation Act (PL 93-112)	1973	Applies to public and private institutions that accept federal funding; programs must be accessible and reasonable accommodations must be made for students to participate.

Latest Amendment: The Workforce Innovation and Opportunity Act	2014	Aimed at increasing opportunities for individuals with disabilities who face barriers to employment, and to invest in the important connection between education and career preparation.
Americans with Disabilities Act (PL 101-336);	1990	Prohibits discrimination against individuals with disabilities in a variety of public and private settings.
Latest Amendment: American with Disabilities Act Amendments Act (ADAAA) of 2008, PL 110-325	2008	Expanded “major life activities” by recognizing activities such as reading, bending, and communicating.

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