Students' Perceptions of a Postsecondary LD/ADHD Support Program

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Abstract

Colleges are seeking ways to better serve the growing population of students with learning disabilities (LD) and/ or Attention Deficit Hyperactivity Disorder (ADHD). In making decisions about how to best facilitate students' success, it is important to listen to their voices as they describe their experiences and offer unique insights. The researchers interviewed 14 undergraduates with LD and/or ADHD enrolled in a fee-based support program at a private liberal arts college. The interviews explored students' perceptions of outcomes of their participation in the program and factors they believed contributed to these outcomes. Students reported growth in self-authorship and self-determination, greater metacognitive awareness, improved academic skills, and changes in their perceptions of themselves as learners and their learning differences. They attributed these positive outcomes to the mentoring relationships they established with professors in the program and the metacognitive conversations they had with them. Students' stories confirm the value of a metacognitive, dialogic approach; the significance of caring, supportive relationships with mentors; and the importance of integrating the emotional and cognitive domains in postsecondary support programs for students with LD/ADHD.

Keywords: Learning disability, metacognition, self-authorship, self-regulation

The inclusion of significant numbers of students with learning disabilities (LD) in higher educational settings is directly attributable to late twentieth century legislation that changed the face of education for students of all ages in the United States (Brinckerhoff, Shaw, & McGuire, 2002; Getzel, Stodden, & Briel, 2001; Scott, 1994). The number of students with LD in higher education has increased tenfold since the legislative reforms of the 1970s and has more than doubled since additional mandates were implemented in the 1990s (NCES, 2000).

Despite these gains in enrollment, students with LD and/or Attention Deficit Hyperactivity Deficit (ADHD) have lower persistence rates compared to students without disabilities. According to 2009 data from the NCES (2000), 28% of students with LD enrolling in postsecondary study in 2003-2004 had attained a bachelor's degree within six years (Radford, Lutz, Wheeless, & Shepherd, 2010). Similarly, 24% of students with ADHD in the same cohort completed a bachelor's degree within six years (Hunt-White, 2011).

In contrast, Radford and colleagues (2010) cite NCES data that indicated 50% of students without disabilities completed a bachelor's degree within the same time frame. Despite the discrepancies between postsecondary degree completion rates of non-disabled students compared to peers with LD and/or ADHD, Vogel and Adelman (1992, 2000) reported that those students who accessed accommodations and supports persisted at similar rates as their non-LD peers.

Over the last forty years, the postsecondary LD support field has evolved in a number of ways. In a nationwide survey of relatively early postsecondary programs for students with LD/ADHD (Bursack, Rose, Cowen, & Mohd, 1989), the majority of service providers ranked access under Section 504 as their most important goal. Since then, LD support practitioners' objectives on some campuses have extended beyond accommodation provisions to more comprehensive roles as advocates who refer students to available campus resources. More recent advances in the field of universal design for instruction (UDI),

which emphasizes practices that proactively provide equal access to postsecondary education for as many students as possible, have great implications for LD support programs. "UDI encapsulates a significant paradigm shift in instruction from making exceptions for 'different' learners to anticipation and planning for student diversity as the norm" (Scott, McGuire, & Shaw, 2003, p. 377). As higher educational settings incorporate the principles of UDI, LD support providers can promote and utilize this new paradigm in a manner that specifically enhances the learning experience for students with LD/ADHD.

Purpose of the Study

The purpose of this qualitative study was to explore the perceptions of students regarding outcomes of their participation in a fee-base postsecondary LD support program. The study was conducted at a small four-year college as one component of a comprehensive program evaluation that involved 300 participants. The broader evaluation included measures of metacognitive growth as well as analysis of anonymous web-based program evaluations completed by students at the end of each semester over a ten year period.

Founded in 1970, this comprehensive LD support program provides strategic learning instruction for students with language-based LD and/or ADHD. The program, which espouses a holistic, strength-based transformative learning approach, serves approximately 25-30% of each incoming first year class. Participants enroll in a two-semester sequence of credit bearing, pass/fail courses during their first year. Courses are taught by learning support professors with extensive backgrounds in learning disabilities. Students meet with these professors in small groups and/or in individual sessions for 150 minutes per week, with a focus on learning outcomes that fall into three categories: (1) personal agency, (2) cognition, and (3) communication. After their first year, students can elect to continue their participation in the program but no longer receive academic credit. During all phases of their participation, students engage in metacognitive conversations and activities with professors to help them define and explain their preferred learning styles, strengths and challenges; identify and apply learning strategies matched to their learning profiles; and monitor and evaluate strategy use. The skills taught relate to content and tasks assigned in other courses in which students are enrolled. Kincannon, Gleber, and Kim

(1999) established the efficacy of "embedded" skills instruction, or the teaching of strategies and their use related to specific course content.

Program objectives, which include cognitive and affective personal outcomes such as self-reflection, self-knowledge and personal agency, are not easily quantifiable. Additionally, the effectiveness of the varied, complex interventions used to achieve these outcomes is difficult to evaluate. However, programmatic effectiveness and accountability demand assessment of these phenomena. A qualitative approach provides a mechanism to include student voices in program assessment. While numerous studies have examined the outcomes of students with LD/ADHD in higher educational settings, there is little research that explores students' perspectives in depth (Dowds & Phelan, 2006; Parker & Boutelle, 2009; Parker, Hoffman, Sawilowsky, & Rolands, 2011; Reis, McGuire, & Neu, 2000).

This study was designed to elicit students' perceptions of the personal outcomes they experienced as a result of their participation in the program and to determine the aspects of the program they found helpful or unhelpful to them.

Literature Review

Culture of Care

Though multiple and varied strategies are employed in this LD support program, one consistent, critical factor is the unique mentoring relationship between professors and their students. A theme that emerges in the transition literature is the importance of contact with a trusted campus support person to foster success. Trust is built through a "culture of care," which refers to an educational climate in which teachers build effective relationships with students to help them succeed (Noddings, 1984). According to Collinson and Killeavey (1999), "Knowing students is a necessary condition for caring, respect is an indispensable foundation for establishing classroom relationships, and an ethic of care is a prerequisite for effective teaching and optimal learning" (p. 349).

While a culture of care can benefit all students, undergraduates with LD/ADHD often demonstrate a particular need to make strong associations with LD specialists who know them personally and care about them (Adelizzi, 2010; Corey, 2003; Finn, 1999; Goss, 2010; Mytkowicz, 2010; Orr & Hamig, 2009; Preece,

Rice, Beecher, Roberts, & Stearns, 2003). In a recent review of the literature on effective strategies for working with college students with LD, Orr and Hamig (2009) concluded, "Instructor empathy and approachability are characteristics that appear to hold particular value to students with LD" (p.192). The caring relationship is at the "core of good teaching because it is predicated on high standards, rigorous demands, and respect for students, their identities, and their families" (Collinson & Killeavey, 1999, p. 100).

A culture of care requires faculty to take risks and shift from traditional paradigms of teacher as leader to teacher as facilitator. Palmer (1998) asserts that taking this kind of risk involves courage on the part of the teacher. In a trusting, collaborative relationship, professors can share their own learning challenges and model successful behaviors. According to Frego (2006), this sharing helps students acknowledge their fears, reduce anxiety, and acquire coping mechanisms that can contribute to success in learning.

Transformative Learning

Transformative learning theory provides a philosophical foundation that is particularly well-suited to initiatives that focus on the change process in learners. Mezirow (1994) defines learning from this perspective as the "…process of construing and appropriating a new or revised interpretation of the meaning of one's experience as a guide to action" (p.222). Through critical reflection, learners alter their meaning systems and perspectives. The culmination of the process occurs when the individual acts on the new perspective, making choices and engaging in actions that reflect the new understanding. College is a time when students often undergo significant changes in their world views, making transformative learning particularly germane to this period in young adult development (Baxter Magolda, 2001, 2009; Brock, 2010; Kegan, 1994).

Discourse of various types, including dialogue, conversation, and discussion is at the core of transformative learning methodology (Cranton, 2006; Daloz, 1999; Fisher & Torbert, 1995; Mezirow, 1991). The literature on conversation and dialogue provides insight into the power of this pedagogical tool. McDrury and Alterio (2003) note that support for the use of reflective conversation in higher education can be found in the work of many learning theorists and educators including Boud, Keogh, and Walker (1985); Kolb, Baker and Jenson (2002); Moon (1999); Schon (1987); and

Vygotsky (1987). McDrury and Alterio (2003) assert that learning conversations help students construct knowledge, develop theories based on their experiences, form connections and relationships with others, evaluate themselves, and gain self-awareness.

Self-authorship, Self-agency and Self-determination

One of the goals of transformative learning is to encourage the development of self-authorship and self-agency. Baxter Magolda (2009) defines self-authorship as "the capacity to internally generate beliefs, values, identity, and social relations" (p. 8). Ignelzi (2000) recommends that faculty provide structured, scaffolded learning opportunities that can guide students toward self-authorship and the development of their own ideas. Grounding learning in student experiences is important in fostering the self-authorship that colleges hope to nurture (Baxter Magolda, 2009).

In addition to self-authorship, the development of self-agency is critical. One of the important goals of the LD support practitioner is to lead the student ultimately to independence, self-reliance, and self-advocacy (Brinckerhoff et. al., 2002; Janiga & Costenbader, 2002). LD support providers frequently report that students lack self-advocacy skills as they enter college. Years of parental involvement and strict special education regulations combine to make students dependent on others and less aware of their own learning needs (Janiga & Costenbader, 2002). "Individuals with LD often exhibit lower self-esteem, higher anxiety, and poor interpersonal skills, resulting in difficulty with self-advocacy and social interactions, necessary skills for success in college" (DaDeppo, 2009, p. 123). Students themselves also recognize their lack of self-advocacy skills as a barrier to success (Lehmann, Davies, Gray & Laurin, 2000) and admit that they are not able to communicate their needs for support and accommodations effectively (Cawthon & Cole, 2010).

Research has demonstrated that self-authorship, self-agency, self-advocacy, self-esteem, and self-determination are important to the success of individuals with LD in college and the workplace. Raskind, Goldberg, Higgins, and Herman (1999) identified a number of "success attributes" associated with successful adults with LD including self-awareness, proactivity, perseverance, appropriate and realistic goal-setting, use of support systems, and development of coping strategies to deal with stress, frustration and anxiety. Many studies have found that self-determination is an

important factor in the success of college students with LD/ADHD (Anctil, Ishikawa, & Scott, 2008; Evans-Getzel & Thoma, 2008; Field, Sarver, & Shaw, 2003; Parker et al., 2011; Sarver, 2000; Thoma & Evans-Getzel, 2005). These studies suggest that higher levels of self-determination and self-regulation contribute to student success by allowing them to set goals, plan and organize their actions, advocate for themselves, experience a sense of empowerment and academic competence, and meet the demands of the college environment with autonomous, self-directed behavior. Service providers who foster these attributes can help students with LD/ADHD develop characteristics that can translate into successful academic performance (Brinkerhoff, McGuire, & Shaw, 2002; Sarver, 2000; Parker et al., 2011).

Development of Effective Learning Strategies

In addition to attaining the attributes of self-authorship, self-agency, self-advocacy, and self-esteem, college students with LD/ADHD must also acquire effective and individualized learning strategies (Allsop, Minskoff & Bolt, 2005; Brinckerhoff et al, 2002; Norlander et al., 1990). LD support service providers become crucial allies in assisting students to learn strategies that can provide success in college coursework and employment and personal learning demands after college. In fact, strategy instruction has proven more effective than remediation of the LD (Raskind et al., 1999; Ruban, McCoach, McGuire & Reis, 2003). Butler (1998) suggests that modeling self-regulated learning strategies alone is not enough to impact study patterns among college students with LD. Students also need to learn how to analyze tasks; evaluate how they learn; and choose, assess and adapt strategies according to need.

Development of metacognitive awareness is also crucial for effective learning (Flavell, 1987). Metacognition involves knowledge about learning, about self as a learner, and about effective learning strategies, as well as the ability to monitor, regulate and control one's thinking and learning (Borkowski, Chan, & Muthukrishna, 2000; Pintrich, 2002). Thus, instruction in metacognitive strategies is essential in developing students' self-awareness and helping them build a repertoire of executive functioning skills such as planning, reflecting, monitoring and evaluating. A number of sources depict the importance of metacognitive strategy instruction for students with LD and/or

ADHD (Brinckerhoff et al., 2002; Fox & Ijiri, 2010; Ruban et al., 2003). When service providers help students identify individual strengths and understand how LD/ADHD impacts their learning, students can improve their self-regulated academic performance (Brinckerhoff et. al., 2002; Ruban et. al., 2003).

Method

Research Design

The research was designed to explore two major questions. Research Question 1 was, "What do the individual participants perceive as the personal outcomes of their participation in the LD/ADHD support program?" Closely related to that, Research Question 2 was, "What aspects of the program did students identify as helpful or unhelpful to them?"

A qualitative approach was well suited for this study, which explored outcomes of participation for a unique group of students in a specific fee-based, comprehensive postsecondary LD/ADHD support program. Denzin and Lincoln (2005) note that, by using a qualitative research approach, "researchers can isolate target populations [and] show the immediate effects of certain programs on such groups" (p.26). Harper and Kuh (2007) point out that qualitative methods are particularly useful for research focusing on the experience of individual students in particular contexts.

The qualitative interview was chosen as the primary data collection method because it allows for clarifying ambiguities, probing, prompting, and following up on unexpected themes that may be suggested spontaneously by the participant (Guba & Lincoln, 1988; Marshall & Rossman, 1989). Interviews provide access to that which is not directly accessible through other means such as questionnaires and surveys (Seidman, 1991). The qualitative interviews added a unique data collection source to the broader program evaluation process, which primarily utilized quantitative data.

Participants

The researchers conducted semi-structured, in-depth interviews with 14 participants in the LD support program who were currently juniors or seniors at the college and who had completed between one and six semesters in the LD support program. The researchers chose to interview juniors and seniors because of their greater experience in both the program and in postsecondary study, which provided access to more informed

perspectives than interviews with first or second year students. Invitations to participate were sent three times by email to all juniors and seniors currently or previously enrolled in the program (n=200). Sixteen respondents, all of whom were currently enrolled in the program, subsequently volunteered to participate and 14 followed through. While this is a relatively small number of participants, it is typical of qualitative studies in which the researcher's goal is not to make generalizations that apply to a large group but, rather, to explore in depth the experiences and perceptions of unique individuals (Cresswell, 2007; Denzin & Lincoln, 2005; Seidman, 1991). It is important to note that the participants were all persisting toward graduation and in good academic standing, with GPAs of at least 2.7 out of a 4.0 scale. Additionally, it is notable that the types of students who would volunteer for such a study may be a select and successful group, as no students who had low GPAs volunteered to participate.

Eight males and six females, ranging in age from 20 to 24 and each with documented LD and/or ADHD or both, completed the interview. All had Wechsler Adult Intelligence Scale IQ scores within the average to above average range. While socio-economic status was not considered, all participants were enrolled in a private college and participated in a fee-based LD support program. Participant characteristics, including GPA, are described in Table 1.

Table 1

Interview Participants

Pseudonym	Gender	Age	Diagnosis*	Year	Semesters in Program	GPA
Alex	M	21	LLD/ADHD	Senior	6	3.32
Caitlin	F	24	ADHD	Senior	4	3.07
Dalia	F	21	LLD	Junior	4	3.15
Erik	M	21	LLD/ADHD	Junior	7	3.20
Greg	M	21	LLD	Junior	5	3.18
James	M	29	NLD and ADHD	Senior	4	3.39
Jessica	F	23	LLD/ADHD	Junior	4	2.72
John	M	21	LLD	Junior	6	3.17
Lily	F	21	LLD	Junior	5	3.55
Melissa	F	21	ADHD	Junior	1	3.06
Phil	M	23	LLD/ADHD	Senior	3	3.40
Ross	M	22	ADHD	Senior	8	3.37
Ted	M	20	ADHD	Junior	3	3.68
Sarah	F	20	LLD	Junior	5	3.63

* LLD= language-based learning disability; NLD = nonverbal learning disability; ADHD = Attention Deficit Hyperactivity Disorder

Nine different LD support faculty members had worked with or were currently working with individual students included in the study at the time of the interview. To avoid bias, neither researcher interviewed students with whom she had worked. Professors in the program were not informed about their students' participation in the study to assure students that their responses would have no impact on grades.

Procedure

A semi-structured interview format was used so that interviewers were guided by but not limited to a basic protocol of pre-determined, open-ended questions (see Appendix). Since one goal of the support program is to effect transformative change that will contribute to success in college, questions focused on whether and how such change occurred and to what extent participation in the program may have contributed. The researchers reviewed the revised Learning Activities Survey ([LAS]; King, 2009), which assesses transformative educational experiences for students in higher education, and modified some questions for inclusion in the interview protocol.

During the interviews, researchers also used probes, asked for examples, queried specifics, and rephrased similar questions in different ways to encourage further exploration and fuller expression of memories. Since some participants have expressive language disorders, thorough rechecking and clarification of their responses through multiple querying techniques was essential.

The researchers recorded, transcribed and coded the interviews. To reduce bias and check accuracy of the coding, they collaborated in assigning codes (investigative triangulation) to the transcriptions and in interpreting the data. Coding involved successive steps as the data was revisited, reorganized, and clarified resulting in new insights and interpretations. Initially, each researcher performed a review of the interview transcripts to determine general themes. The researchers then shared their findings, discussed similarities and differences in theme identification, and agreed upon major themes and subcategories. The researchers shared their files and minor adjustments were made to the coding scheme based on their findings (Table 2). Similar categories were grouped into larger themes as the coding schemes were refined and adjusted.

Table 2

Coding Themes and Sub Categories

Major Themes	Sub Categories
Student perceptions of LD support program pedagogy	• Climate of safety and care • Significance of the professor-student relationship • Importance of conversation in developing metacognition
Student perceptions of outcomes associated with participation in the LD support program	• Self-Authorship • Self-Agency • Self-Determination • Changing/reframing view of LD/ADHD • Improved academic skills and learning strategies • Metacognition

Findings

Student Perceptions of LD Support Program Pedagogy

This study, conducted as one component of a broader program evaluation, was intended to explore student perceptions of the LD/ADHD support program in which they were enrolled. This is a unique program in which faculty members with extensive background in learning disabilities provide instruction and personal support to students. Not surprisingly, many of the students' comments therefore refer to these LD support program professors. The major aspects of the program identified by students as helpful to them include the climate of safety and care, the significance of the professor-student relationship, and the importance of conversation in developing metacognition.

Climate of safety and care. The literature maintains that an educational climate of care, safety, and respect contributes to students' learning and development (Collinson & Killeavey, 1999; Daloz, 1999; Orr & Hamig, 2009; Peart & Campbell, 1999; Preece et. al., 2003; Talbert-Johnson & Beran, 1999; Tebben, 1995). Many participants noted the sense of safety and the caring atmosphere that allowed them to be comfortable and open with their LD support program professors. As Ted (a pseudonym) put it, "There's this really good atmosphere of trust when you go in there. I like that I can be open." Sara noted that she appreciates the way her professor treats her and added, "It makes me trust her, and it makes me calm." Melissa stated, "I was never made to feel uncomfortable. She was like a guide, and I could always feel comfortable asking her something that I would have felt dumb asking before." The importance of trust and approachability was also found in studies reviewed by Orr and Hamig (2009) that looked at effective postsecondary teaching practices for students with disabilities.

The students in this study clearly assert the importance of what Rogers calls "positive regard" (Rogers & Frieberg, 1994). In discussing his LD support program professor, Phil stated, "There is a level of care and a level of respect that I never encountered with anyone else who was helping me with my LD." A positive view of the student and non-judgmental acceptance, however, does not mean that the professor ignores difficult issues the student needs to confront. Indeed, these beliefs seem to enhance professors' ability to challenge and engage the student in exploring such issues. Erik

stated, "He was always positive, but also, if I was struggling, he was going to speak the truth." Dalia also emphasized the combination of candor and affirmation in her professor. "She's honest. But she's also always saying, 'You can do it. You're good at this.'" Caitlin also described the combination of positive acceptance and challenge. "She has a very firm but gentle guiding hand. And that's what I needed - having someone push you because you are either not strong enough or you are too scared to do it alone." Collinson and Killeavey (1999) maintain that "high standards, rigorous demands, and respect for students" are intrinsic to establishing a context for optimal learning (p. 349). The words of the students in this study are consistent with this assertion.

Relationship between students and faculty. The importance of the relationship between the professors in the LD support program and the students is a recurrent theme. Students described their relationships with these professors in a variety of ways. Some used metaphors to try to capture the nature of the relationship. Sara stated, "My professor is like a mother-friend." Greg also used the mother-friend metaphor in describing his relationship with his professor. "I just feel extremely comfortable to tell her anything that I need, really as my mother away from home. My relationship with her is different from other professors and even from other classmates." He later told the interviewer that he would not have persisted in college without this relationship. "I think I would have left. It all comes back to having a relationship with my professor, and that's why I've stayed."

Several students combined the concepts of friend, mentor and guide in describing their LD support professors. In describing how his PAL professor helped him adjust to the college environment, Phil used the metaphor of an adult dipping a child's hand into water. "In terms of support, it's not that you have just a teacher- you also have a friend…the school was basically the lake and my professor was the person to help take my hand and put it in." The guiding approach is also evident in Dalia's words when she said, "At first you professors take our hands and you lead us. And then you say, 'OK, try this on your own, but we have your back.'" Erik said, "He's not a coach; I would say more like a mentor." The student voices confirm Dowds and Phalen's (2006) contention that an educator/mentor's "guidance, care, advice, and reassurance" can be a positive factor for students with LD and/or ADHD (p. 155).

The metacognitive conversation. Dialogues and conversations are at the core of the transformative learning approach (Cranton, 2006; Daloz, 1999; Fisher & Torbert, 1995; Mezirow, 1991). Through formal coursework, reading, conferences, and in-house professional development, faculty in the support program have acquired a repertoire of techniques for facilitating metacognitive conversations. These weekly conversations encourage students to reflect on their own learning strengths and limitations, identify current challenges and obstacles, analyze their assignments and determine appropriate strategies, assess their progress, and engage in planning and organizing. Participants in this study affirmed the value of this methodology. In fact, the most common theme that arose during the interviews was the significance of the metacognitive conversations students shared with LD support program faculty. Each of the 14 participants recognized that the core of the work done in the program is accomplished through conversations in which they have the opportunity to explore their learning as well as other aspects of their lives that affect them as learners.

Ross said, "I had conversations with her about a lot of things... just sharing what's going on in my life." Greg, too, stated, "To have a genuine conversation with somebody has taught me life skills, not just academic skills, from talking with my professor." Alex recognized that personal and academic domains are interconnected and that it is sometimes necessary to attend to personal issues before the student can focus on the academic. "If you've got a problem and it's personal, you gotta solve that problem. When you talk about it, then you can let it go." Jessica also stated, "My professor knew I was depressed. I didn't talk about it outright with her, but sometimes I would vent because it was eating me alive. And once I could do that, I could move along academically." These students' words illustrate the importance of conversation about life experiences for gaining knowledge and for making learning more relevant, a concept discussed by Kolb et al. (2002).

It was clear from the interviews that the content of the metacognitive conversations was wide-ranging and reciprocal. Phil stated:

> She talked to me like I was a person and not a subject. We can talk but we can integrate what's going on at the same time, so we have this incredibly friendly dialogue but at the end of it, it's not

like we haven't done anything. We walk out and I say, "Whoa, I just accomplished something!"

After describing how her conversations with her professor often meander from topic to topic, Sara emphasized the importance of allowing the content to emerge from the student's current concerns:

> When teachers say, "Sit down, and do this," I don't think that will help students explore their LD. But if you sit and talk about different strategies with no set agenda, you realize more things about yourself. It just flows from what is going on in the life of the student at that moment.

Other studies have also found that students with LD and/or ADHD appreciate and benefit from interventions that are personalized and based on their individual needs and specific contexts (Kurth & Mellard, 2006; Parker & Boutelle, 2009). The metacognitive conversation facilitates this individualization.

While their discussions with their LD support professors are often described as conversations with a friend, students distinguished between the conversations they had with program faculty and those with peers. Sara said, "You know, you can always go talk to your friends, but for me there's something in talking to an adult that is calming and informational and enjoyable." Ross noted that he enjoyed having "conversations that are intellectual with his professor." Phil appreciated the mutuality of the dialogue he had with his professor in the support program and noted that these conversations made him feel more mature. "When you get the chance to sit down with somebody and not only talk about your schooling, but also talk about how you are doing, how they are doing, to have a dialogue, you feel more adult at that point."

Student Perceptions of Outcomes Associated with Participation in the LD Support Program

Students identified growth in self-authorship, self-agency, and self-determination; the ability to reframe their LD; improved academic skills and learning strategies; and an increase in metacognition as outcomes of their participation in the support program.

Self-authorship, self-agency and self-determination. It is difficult to separate the concepts of self-authorship, self-agency, and self-determination in student responses. The three appear intertwined as students

speak of their personal growth. Sarah commented on her increased sense of self-efficacy. "I feel more independent, more adult-like and more in control. I'm starting to make decisions for myself along with that independence." Lily used an apt metaphor to describe the way her professor gave her the power to find her own way but also provided guidance. "I'm definitely steering the boat, but she kind of is, too. She can be like the assistant driver." Ross asserted his developing sense of self and of personal control and self-agency, "I'm more independent. I know myself better in all ways. Now I'm able to do my stuff myself and do it well." Greg also talked about increased autonomy. "The first year I was here [in the PAL program] twice a week, and now I'm only here once a week." Decreased dependence on the LD support provider is both positive and necessary so students can gain a sense of their own competence and develop the autonomy they will need to function independently as adults (Brinckerhoff et. al., 2002; Field et al., 2003; Raskind et. al., 1999; Yost & Shaw, 1994). Field et al. (2003) assert that the opportunity for students to develop self-determination should be an essential component in support programs for college students with disabilities.

As students become more self-determined and experience academic success, they gain greater self-confidence. Erik reported, "My confidence has gone up a lot. I am less stressed about stuff. Sara admitted, "I've always had low self-confidence. It's still a struggle for me, but I've definitely grown stronger." Greg, too, recognized that improving self confidence is an on-going process. "I've definitely gained in my self-esteem. I still have a little ways to go." Caitlin acknowledges growing confidence as a result of improved academic performance. "When I transferred to this college, I felt a sense of rebirth. I started seeing better grades coming across the table. Success was a feeling that I rarely got and I feel now, here, success is part of a daily routine."

Alyssa was newly diagnosed at age 20. Like Caitlin, her fear of failure dissipated when she began to see improved grades.

> I didn't want to fail my parents, and that's what I was doing. But now, after getting my first good grades, I was like, "Wow - I can really do this and it wasn't about proving it to them anymore but proving it to me."

James also described how success facilitated his enhanced self-confidence as a learner. "My belief in myself came somewhat quickly here since I received such high marks after the first semester. It helped me recognize that I had a lot more as a student than I had ever believed that I had." Proving their own capability to themselves and others was a strong theme that students reported as contributing to their sense of self-agency.

Reframing the LD and/or ADHD

Gerber, Ginsberg, and Reiff (1992) defined *reframing* as "the set of decisions relating to reinterpreting the learning disability experience in a more positive or productive manner" (p.481). Participants' comments reflect a range of stages in coming to terms with their learning differences in a manner that aligns with the reframing process. Some students were still struggling to accept their LD and/or ADHD. Dalia confided, "I'll tell you one thing - dyslexia rules my life. And I hate it." Others had moved further along the continuum of acceptance. John said, "My [LD] is not a stepping stone, but not a roadblock either. It's a difference that you just have to accept." Melissa discussed the way her conversations with her professor helped her to understand and accept her LD. "My professor just kind of made it seem like my LD is common - it's not a big deal." It is clear that the recognition that they were not aberrant or alone in having this challenge contributed to a change in perspective for other students as well. Jessica stated, "In the program, I came to a more conscious acceptance of it because everyone in the program had an LD or ADHD. And then I realized it doesn't make me any different."

Another important step demonstrated by participants in reframing their learning challenges was to find positive aspects of their LD that they could embrace. After describing his previous difficulty accepting his learning differences, John explained his current view. "This is what it is and I'm going to deal with it. To be honest with you, I am happy that it happened because I feel like I wouldn't be who I am today." James stated, "I recognized the LD more as a strength that other people don't have. I have always heard that people with ADHD can have more creativity, and I know I've been a real creative person all my life." Caitlin said:

> My LD is a huge pain in the ass; it is the extra weight I drag around, but it has also given me the insight to become the student I am, and more im-

portantly, the person I am. My life will be unlike anyone else's because of my LD.

The change in viewpoint regarding the LD/ADHD also impacts student perceptions of their future. Greg asserted:

> I have gotten a better understanding of where I stand and that it won't affect me [in the future]. I've become a lot more aware of what I have going for me. You know, that's kind of put things in perspective that everything's gonna work out.

Phil described a similar change in perspective:

> When I hit the wall [at a previous college] I don't think I could have felt any worse about myself. At that point I was at rock bottom. I feel that finally I've had a chance to understand what my LD is and what it means to me. I don't see it affecting me at all [in the future].

John also came to understand that his LD did not have to prevent him from succeeding. "I do not see my LD affecting my future. If I have the right mind set, and if I have the desire to accomplish something, then I can accomplish it. There is nothing stopping me."

Improved Academic Skills and Learning Strategies

In reporting the use of learning strategies that are useful for students, particularly those with ADHD, Reaser, Prevatt, Petscher and Proctor (2007) suggest:

> Common interventions that facilitate concentration, time management, and test strategies include keeping a weekly planner, writing down all reminders, planning and writing down daily and weekly study goals, sitting in the front of the classroom, utilizing note taking as a way to increase concentration, and specific strategies for essay versus multiple choice tests (p.634).

Participants reported gains in a number of these areas. Ross admitted, "The main thing I learned in the program was organization. In my sessions, I needed all my assignments organized in terms of what I needed to do and how to do it. And that's what I got." Lily, too, found her time management skills improved. "I definitely use strategies, and I plan my week." Phil

appreciated learning how to organize his time and assignments. "…when I first came here I was given a day planner, and it was great. I started to find myself being more organized, looking at different projects, and figuring out when I could find time to do the work."

For some students, acquiring better reading and writing strategies was an important outcome of participation in the program. Lily said, "What I need is help outlining papers. Knowing where to put information made it so much easier than sitting down and starting to write." Ted described his new reading strategy as "a survival skill. You read the questions and then find the answer to the questions in the reading just to get through it." Greg tried adaptive technology but found other reading strategies more helpful. "I've tried the Kurzweil and it didn't work for me…. I still have trouble reading a chapter, but I do it more strategically now instead of just reading word for word."

Others noted they had been taught to adapt or match strategy use to task. Ted said, "I have strategies for how I would approach math as opposed to approaching sociology." Sara, too, said, "I think the strategies I use depend on each class. In some, I have to read and make accurate notes, whereas with something like Managerial Communication, if I relate it to life, I'll be able to remember." Dalia noted, "I've worked a lot on trying to study for tests in different ways because it's always been a struggle for me and the program has definitely given me different strategies and options."

Participants noted additional gains in study strategies. Alex noted, "I sometimes learn things using images. I learned a strategy for remembering a group of words by making up a story about it." Dalia had a different technique. "I keep writing it four, five, six times and then I get it stored in my mind." Melissa learned, "Nonverbal LD is all about getting caught up in the details and not the whole picture. So my professor taught me to look at the main key points."

Metacognition

Perhaps the most important learning outcome, however, was in the area of metacognitive awareness. A number of researchers indicate that metacognition is an underlying factor and predictor of academic success defined by grade point average in college students with LD (Dunning, Johnson, Ehrlinger and Kruger, 2003; Reis et al., 2000; Ruban, McCoach, McGuire, & Reis, 2000). Erik said, "I think the best thing I picked up from the program is understanding how I work and do

things, because I really never knew this in high school." Jessica reported, "I have learned more about brain and behavior. I have learned better how to approach test questions." Phil said:

> When I think about my thinking I see that I am looking outside the box and more importantly when it comes to reading or projects, I ask, "How do I approach the task? Do I do everything all at once? Do I break it down?" When I read now, a big thing I ask is, "How do I read?"

Ted observed a new awareness of his need for active participation in learning when he said, "I think I have become a better learner over time. I realize that if I'm actively doing something, I can pick it up pretty quickly." Self awareness is a major component of metacognition (Pintrich, 2002). Greg reported:

> I know myself better now. That's what I'm taking away from the program. It's helped me figure out who I really am. That's one of the reasons you go through college - to find out who you really are, where you want to be.

Perhaps Caitlin best summarized the importance of metacognition as a life skill:

> Metacognition is an equation that you can apply to life and not have to think about every step of the way. And when you get to the point where you don't have to think about every step of the way- and that's where I am, thankfully- then that's where you have grown and can say, "Whoa - I just did that, didn't I?" I had to be taught metacognition, but now I've got it.

Discussion

This study was conducted as one part of an outcomes assessment of an intensive fee-based, credit-bearing LD support program in a small four-year college in the Northeast. Its purpose was to examine what students perceived as the outcomes of their participation in the program and what aspects of the program they found helpful or not helpful. All participants noted the importance of the mentoring relationships they developed with their professors in the LD support program and the metacognitive conversations they had with them. McDrury and Alterio (2003) as-

sert that metacognitive conversations allow students to construct knowledge and theories based on their experiences, establish important relationships with others, become more self-aware, and cope more effectively with difficult emotions. The participants clearly believed they benefitted from conversations with trusted professors that allowed them to openly explore their experiences and ideas. Students also reported growth in the affective areas of self-authorship, self-agency, and self-determination. Many felt that their view of their LD and/or ADHD had changed as well as their perceptions of themselves as learners. Some students demonstrated a reframing of their LD and/or ADHD to the point where they viewed their learning difference as positive and unique. The transformed perspective on LD has been found in other studies and is a crucial step in personal acceptance and in pursuing academic and vocational goals (Dowds & Phelan, 2006; Gerber et al., 1992; Higgins, Raskind, Goldberg, & Herman, 2002; Raskind et al., 1999). Equally important, participants noted acquisition of effective learning skills and greater metacognitive awareness.

When asked for feedback that could contribute to the efficacy of the program, students indicated satisfaction with existing programmatic goals and methodology. Despite further probing, which specifically asked students to give feedback on any negative aspects of the program, participants persisted in stating their satisfaction. The researchers stressed the program's eagerness to make changes and improvements that would benefit students, but the majority of participants stated that the program should not be altered. The only recommendation was the suggestion from two students for increased opportunity for social interaction with other peers enrolled in the program.

Limitations

This is a qualitative study in which the researchers relied on students' self reports of perceived outcomes. Participants may not always or accurately remember occasions that were relevant to this study. They may not be aware of some of the strategies used by their professors and may not have noticed changes in themselves that were incremental in nature. Studying their experiences does, however, provide an opportunity for students to reflect on how they may have changed as a result of their participation in the program.

Sample size was limited, as is typical in qualitative studies. Since the volunteer participants were

self-selected and their number was small, students' views may not be representative of the total program population and cannot generalize to the broader postsecondary population of students with LD and/or ADHD. This particular comprehensive program is a unique learning experience for college students with LD and/or ADHD. More research would be needed to assess the relevance of this study to other populations of postsecondary students and/or to LD support programs - both fee and non-fee based - in other higher education settings.

The authors acknowledge that potential researcher bias may exist since both teach in the program and are, thus, invested in the outcomes. Another concern is that, because students knew that the researchers are faculty in the program, they may have been reluctant to provide negative feedback. The researchers made efforts to minimize this by making certain that neither researcher interviewed students with whom she had personally worked, by asking for criticisms in several different ways, and by assuring participants that the researchers were eager make improvements to the program based on their feedback

Implications

The participants in this study provide personal insights and offer guidance regarding elements that can contribute to the implementation of an effective postsecondary support program for students with LD and/or ADHD. Transferability is limited by the fact that the sample is small and all participants were students in the same intensive, fee-based postsecondary support program in a small, private liberal arts college. Still, practitioners can determine the degree of applicability to other settings and can adapt the findings for their own programs. The lessons learned from the participants in this study can be integrated with findings from other research, including quantitative measures of factors contributing to the success of students with LD/ADHD. The participants' voices, based on their own experiences and perspectives, are a critical piece of the puzzle.

These participants confirm the value of a transformative, dialogic approach. They universally refer to the significance of the conversations they had with their professors in the support program and the value of these dialogs for self-discovery, exploration of ideas, emotional support and metacognitive learning strategies. Gunnlaugson and Moore (2009) note that there

is a growing interest in and appreciation for such conversation-based learning in higher education. Bennett (2001) states that conversation is at the core of liberal education, actively involves students in their learning, and helps them find their individual voice. Taking such an approach in postsecondary support programs for individuals with LD and/or ADHD can help to integrate the programs into the greater mission of the colleges in which they are located and foster the inclusion of students who have often been marginalized.

The participants also affirm the importance of support programs that integrate the emotional and cognitive domains of their higher education experiences. They view their professors in the support program as mentors and friends with whom they can share their fears, anxieties, pain, and joy. They make it clear that the relationships they have with their faculty/mentors have contributed greatly to their success. Hyland (2010) notes that overemphasizing skill development and behavioristic outcomes in postsecondary education is detrimental to students' learning and growth; affective dimensions of learning must be addressed as well. While emotional support is beneficial for all students, students with disabilities often have unique stressors, frustrations, and obstacles that may interfere with their success. For them, support is even more critical. They need an open, welcoming, safe environment in which to engage in risk-taking and self-discovery, explore the obstacles they encounter, and discover ways to overcome their challenges. Bennett (2001) notes the importance of authentic hospitality in promoting liberal learning and in fostering open conversation with students in the higher educational environment. For students with LD and/or ADHD, it is particularly important to feel welcomed, warmly received, and appreciated by faculty and staff members in programs designed to support student success.

The student voices heard in this study provide practitioners with unique insights into the characteristics of support programs that can contribute to the success of postsecondary students with LD and/or ADHD. The researchers recognize that implementing a transformative, dialogic approach and integrating the cognitive and emotional domains is challenging. It is important for postsecondary institutions to perform needs assessments and examine their own unique resources to determine how to adapt the findings of this study to their own settings. Professional development, training, and the involvement of key college personnel includ-

ing faculty, academic advisors, staff, and others who work directly with students can lead to the development of more effective ways of supporting postsecondary students with LD and/or ADHD.

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Appendix

Interview Questions

1. How would you describe your LD in your own words?

2. Before you came to the program, how did you see your LD?

3. What contributed to the way you saw your LD and yourself as a learner?

4. Thinking back over your program experience, was there a time when you realized that your ideas and feelings about your LD had changed?

   • Briefly describe that experience.

5. Could you tell me about a time when you faced a particular challenge or dilemma that caused you to question your values/beliefs/behaviors related to yourself as a learner?

   • What occurred?
   • Who was involved?
   • How did you handle the challenge or dilemma?
   • What was the outcome?

6. Have your ideas about learning, the learning process, or knowledge changed?

7. Have you changed as a result of your participation in the program? How?

   • Have you changed academically? How?
   • Are you different as a learner? In what way?
   • Have you changed personally? How
   • Were your personal goals influenced in any way? If so, how?
   • Behaviors/feelings/ways of thinking

8. Which of the following influenced this change?

   • Was it a person or persons who influenced this change?
   • If so, who?
   • If your program professor was one of the people who influenced this change, what specific things did s/he do to foster this change?
   • Was it a particular activity(ies) or strategy(ies) in PAL that influenced the change?
   • If so, what was it?

9. What changes would you like to see in the program?
   • What could have been done differently in the program to help you more?
   • What advice would you give to the program?
   • Was there anything about the program that you disliked or didn't find helpful?

10. How do you see your LD affecting your future?

Bulleted prompts following some questions were used to elicit responses if the participant did not provide a complete response to the initial question.