

The GOALS² Program: Expanded Supports for Students with Disabilities in Postsecondary Education (Practice Brief)

Janette D. Boney¹
Marie-Christine Potvin²
Monique Chabot²

Abstract

The occupational therapy department of a medium-sized eastern Pennsylvania university developed and piloted the *Greater Opportunity for Academic Learning and Living Successes* (GOALS²) program in collaboration with the Office of Student Accessibility. The program intended to expand the traditional accommodations offered to students with disabilities on college campuses through the provision of occupational therapy services to address student-selected academic learning and living goals. During the pilot semester, 13 of the approximately 110 students with disabilities on campus elected to participate in the GOALS² program. These students met over 80% of their self-identified learning goals and reported that the program had significant value. Researchers interviewed seven of the students who expressed that they found the GOALS² program to be valuable in reaching their self-identified goals. The GOALS² program utilizes graduate level occupational therapy students and appears to be an inexpensive approach to augmenting the services offered to students with disabilities to promote their academic success.

Keywords: college students, disabilities, postsecondary education, university, occupational therapy

Beginning in the mid-1970s, eligible students with disabilities attending K-12 public schools have been eligible to receive special education services or accommodations through the Education for All Handicapped Children Act, now Individuals with Disabilities Education Act (IDEA; U.S. Department of Education [DOE], 2018). Since that time, an increasing number of students with disabilities obtain their high school diploma and aspire to earn a college degree (U.S. DOE, National Center for Education Statistics [NCES], 2016). In postsecondary education, special education law through IDEA does not apply. Eligible students with disabilities are entitled to accommodations under Section 504 of the Rehabilitation Act of 1973 and Title II of the Americans with Disabilities Act of 1990. These laws require postsecondary education institutions to provide appropriate academic adjustments to ensure that no discrimination based on disability is occurring (U.S. DOE, Office of Civil Rights, 2011).

Unfortunately, students with disabilities who were successful when receiving special education support in high school are at risk of struggling in college where such support is not mandated by law (National Center for Learning Disabilities, 2014). In fact, students with disabilities have substantially lower retention and persistence rates in college than other students (Kim & Lee, 2016). This results in reduced opportunities for students with disabilities on many fronts, including developing social roles and establishing routines that promote enhanced mental health and self-efficacy (Pitts, 2001). The annual unemployment rate in 2017 for individuals without disabilities was approximately 4.2% compared to a 9.2% rate of people with disabilities who were available for work and actively seeking employment (U.S. Department of Labor [DOL], Bureau of Labor Statistics, 2018, June 21). Attending college can alleviate this problem, since earning a four-year college degree yields a 74% increase in lifetime earnings over those with a high

¹ Stockton University; ² Thomas Jefferson University

school diploma (Carnevale, Rose & Cheah, 2010).

According to the Bureau of Labor Statistics (2015, July 20), only 16.4% of people with a disability aged 25 and older have completed a bachelor's degree, compared to 34.6% of people with no disability. Poor college graduation rates for students with disabilities, and its natural consequence, can be mitigated. Ramsdell (2014) highlights student engagement and effective learning strategies as two constructs related to student success in college. Receiving proper support services predicts the degree of success for students with disabilities in postsecondary education (Herbert et al., 2014). Recognizing this, nearly forty colleges around the country have developed programs, beyond legal requirements, to support students with disabilities, and more specifically students with autism spectrum disorder (ASD; Hoffman, 2016). One such program has paired graduate-level occupational therapy (OT) students with students with ASD in a course in which one-on-one mentoring is provided to help students with disabilities succeed in college (Schindler, Cajiga, Aaronson, & Salas, 2015).

In fact, it is within the OT's scope of practice to address some of the challenges faced by students with disabilities in postsecondary education. Occupational therapists understand how a disability can create physical, psychosocial, cognitive, and sensory challenges that affect a student's ability to successfully participate in college life (Jirikowic, Campbell, DiAmico, Frauwith, & Mahoney, 2013). With expertise in task analysis, environmental modification, and task adaptation, occupational therapists are well suited to contribute to the success of these college students (Jirikowic et al., 2013). Some occupational therapists utilize coaching methods for student-driven practice, which is an emerging intervention method with growing evidence (Dunn, Cox, Foster, Mische-Lawson, & Tanquary, 2012; Graham, Rodger, & Ziviani, 2013; Potvin, Prelock, & Savard, 2018). Thus, occupational therapists have the skills to support college students with disabilities to develop their individual goals and skills for academic success. Many of these students with disabilities received occupational therapy services while in public schools, but these services are rarely provided in postsecondary institutions (Crabtree, Daley, Eichler, McCarthy, & Schindler, 2015).

Depiction of the Problem

The population currently served by the Office of Student Accessibility Services (herein referred to as Accessibility Services) at the medium-sized university (The Carnegie Classification of Institutions of Higher Education, n.d.) in eastern Pennsylvania

has approximately 110 undergraduate and graduate students combined each year. The Accessibility Services Office has a staff of one person who provides standard accommodation such as quiet testing space, extra time for exams, notetakers, and preferential course registration. As the number of college-bound students with disabilities and the variety of their disabilities has increased, the traditional services offered by Accessibility Services needed to be expanded. It was determined that students have additional needs in order to be successful both in the academic and social aspects of college life. For example, these students expressed a need for support around navigating group projects given their disability, having a meaningful social life, and developing disability-specific learning strategies. These types of services are not traditionally offered by Accessibility Services, but contribute to students' academic success and overall satisfaction with their college experience.

The university offers a graduate-level occupational therapy education program. The Accreditation Council for Occupational Therapy Education (ACOTE) requires that occupational therapy students complete clinical placements as part of their educational experience (ACOTE, 2012). A partnership was established to expand the offerings of Accessibility Services through a new program in which free occupational therapy services were offered by the OT department to students with disabilities in need on campus. This program, entitled *Greater Opportunity for Academic Learning and Living Successes* (GOALS²), was piloted during the Fall 2017 semester.

Participant Demographics and Institutional Partners/Resources

Students with disabilities were identified as having unmet needs in two ways: referral from the director of Accessibility Services, and self-identification through the *Screening Tool for Accessibility Requirements and Satisfaction* (STARS) questionnaire. The GOALS² program developers adapted Dutta's (2001) *Disability Related Service Needs and Satisfaction Questionnaire* to create the STARS questionnaire by revising or removing items that were not applicable to the pilot campus. The STARS questionnaire measures the student-perceived level of need for, and satisfaction with, disability services provided. The questionnaire includes questions about stress management, study skills, time management, organizational skills, social supports, and disability-specific career counseling/planning. Of the 27 identified students, 13 students were scheduled to work at least once with the GOALS² Program. Ten students became ongoing participants attending three

or more GOALS² sessions. The ongoing participants included six females and four males with a variety of diagnoses. Table 1 lists additional participant characteristics, including diagnoses.

Description of Practice

The GOALS² program was designed to support the Accessibility Services' mission of equal access to educational opportunities for all students. The ultimate aims of the program go beyond equal access and focus on the successful attainment of education-related goals and development of new skills that will result in meaningful employment and independence after graduation. The program is a student-driven approach that uses the Coaching-in-Context process (Figure 1) to help students with disabilities identify strategies they can use to reach their self-identified goals. The progress toward students' self-identified goals is monitored in each session.

The GOALS² staff consists of two full-time third year master's level OT students during the clinical rotation portion of their education and two occupational therapy faculty members who provide weekly supervision to the occupational therapy students. This is in accordance with the ACOTE standards (2012).

A program evaluation plan was developed to determine the degree to which the GOALS² program achieved its objectives and to gather information for program improvement. The program evaluation plan sought to (a) describe the participants' impressions of the GOALS² program and (b) assess the degree to which GOALS² participants reached their self-identified learning goals.

The program evaluation plan was approved as a study by the university institutional review board. Students with disabilities who received services through the GOALS² program were invited to take part in the program evaluation during the informed consent process. This occurred in-person during one of the GOALS² program sessions. Students with disabilities were informed that they could receive GOALS² program services regardless of whether they chose to sign the informed consent form.

The program evaluation used a combination of quantitative and qualitative methods to collect data. *Goal Attainment Scaling* (GAS) was the primary quantitative outcome measure. It is used to scale goals into intervals that allow for the quantitative monitoring of progress toward the goals. Ruble, McGrew, and Toland (2012) found GAS to be valid and reliable across numerous population and studies. A change of one point on the GAS is considered clinically significant, however a two-point change is nec-

essary for a goal to be considered reached (Ruble et al., 2012). Students with disabilities provided GAS ratings during each GOALS² program session.

In addition to the GAS data, the program evaluation plan included qualitative interviews using a semi-structured interview guide. Seven of the 10 students who received ongoing GOALS² program services during the pilot semester were interviewed. The interviews were transcribed verbatim, checked for accuracy, and coded. A multi-step, multi-coder, open-coding approach was used to divide data into segments and identify categories to develop a coding key (Leedy & Ormrod, 2016). NVivo Pro qualitative data analysis software (version 11) was used to complete the qualitative data analysis.

Evaluation of Observed Outcomes

The ten ongoing clients developed 26 goals that fell into four categories: Academic, Health and Wellness, Interpersonal Relationships, and Time Management/Organization. The academic goals addressed items such as study skills, test-taking strategies, and use of assistive technology to increase academic success. Health and wellness goals addressed sleep, exercise, eating habits, coping strategies, and stress management. Interpersonal relationship goals addressed social life, communication skills, and self-advocacy. Time management and organizational goals addressed task breakdown, initiation, and pacing.

The GOALS² staff had 124 hours of direct contact with students with disabilities during the pilot semester. Each student received an average of 9.5 sessions. Over 80% of the students' self-identified goals were achieved during the pilot semester. It took an average of five sessions for goals to be achieved. As indicated in Table 2, all Health and Wellness goals and all Interpersonal Relationship goals were achieved.

Six themes emerged from the GOALS² program participant interviews: academic success, emotional support, progress toward goal attainment, personal health and wellness, decreased stress and anxiety, and time management/organization. Figure 2 provides illustrative excerpts of each of the themes.

During the interviews, participants mention two challenges that they experienced while taking part in the GOALS² program. Two of the seven students reported that they did not implement some of the strategies that they had chosen to make progress toward their goals. Two students reported unexpected roadblocks as a challenge (e.g. class layout or assignments).

Implications and Portability

Although a small sample size ($n = 10$) is a limitation of the study, the results of the pilot semester suggest that the GOALS² program is effective at helping students with disabilities reach their own goals. These same students overwhelmingly have provided positive feedback about the program. The GOALS² program approach is a cost-effective complement to traditional Accessibility Services. It allows college campuses to provide more comprehensive support services to college students with disabilities, with the hope of increasing the graduation rates.

Several challenges were noted during this pilot semester. First, making students with disabilities aware that the program existed and of its potential benefits was a greater challenge than expected. Most of the 27 students who were identified as possible candidates for the program did not respond to the emails sent to them informing them of the availability of the program. Instead of email, it may be best for a GOALS² program representative to be physically present in the Office of Student Accessibility Services for the first two weeks of the semester to invite students to the program. Secondly, although an informational session was held for faculty members, the GOALS² staff realized that further faculty education was necessary to help faculty members differentiate between the role of the GOALS² program, Accessibility Office, and the Academic Success Center. Finally, it became clear that while the Coaching-in-Context process is appropriate for most of the students, some students require a more directive intervention approach.

During the pilot semester, the GOALS² program primarily determined its efficacy by measuring student progress of their own goals using a repeated measures design. Future plans include measuring whether participating in the GOALS² program impacts participants' quality of life and stress levels, using the *Brunnsviken Brief Quality of Life Scale* and the *Penn State Worry Questionnaire*, respectively (Lindner et al., 2016; Meyer, Miller, Metzger, & Borkovec, 1990). The *STARS* questionnaire will be used to measure students' satisfaction with the GOALS² program and to compare this to satisfaction of students receiving services exclusively through Accessibility Services. Finally, the program intends to track GPA (grade point average), probation, and student retention. With proper funding, the GOALS² program could expand to several colleges, including any of the 174 universities in the United States where occupational therapy graduate programs are offered (American Occupational Therapy Association, 2018), or any other university through the use of

virtual technology. The increased sample size across multiple campuses would allow a randomized clinical trial to be conducted.

The GOALS² program has the potential of providing needed supports to students with disabilities at minimal cost to universities and colleges nationwide. Those interested in replicating the program are invited to contact the second author.

References

- Accreditation Council for Occupational Therapy Education. (2012). 2011 Accreditation Council for Occupational Therapy Education (ACOTE) standards. *American Journal of Occupational Therapy*, 66, S6–S74.
- American Occupational Therapy Association. (2018). *OT master's-level programs – accredited*. Retrieved from <https://www.aota.org/Education-Careers/Find-School/AccreditEntryLevel/OTMasters.aspx>
- Carnevale, A. P., Rose, S. J., & Cheah, B. (2009). *The college payoff: Education, occupations, lifetime earnings*. The Georgetown University Center on Education and the Workforce. Retrieved from www2.ed.gov/policy/highered/reg/hearulemaking/2011/collegepayoff.pdf
- Crabtree, L., Daley, C., Eichler, J., McCarthy, K., & Schindler, V. (2015). *OT on college campuses: Emerging models facilitating student success through occupation* [Collected faculty and staff scholarship]. Retrieved from <http://scholar.dominican.edu/all-faculty/247>
- Dunn, W., Cox, J., Foster, L., Mische-Lawson, L. & Tanquary, J. (2012). Impact of a contextual intervention on child participation and parent competence among children with autism spectrum disorders: A pretest-posttest repeated-measures design. *American Journal of Occupational Therapy*, 66(5), 520-8.
- Dutta, A. (2001). Disability related services needs and satisfactions of university students: *An exploratory study* (Doctoral dissertation). Retrieved from <http://hdl.handle.net/2142/86435>
- Graham, F., Rodger, S., & Ziviani, J. (2013). Effectiveness of occupational performance coaching in improving children's and mothers' performance and mothers' self-competence. *American Journal of Occupational Therapy*, 61(1), 10-18.
- Herbert, J. T., Welsh, W., Hong, B. S., Soo-yong, B., Atkinson, H. A., & Anne Kurz, C. (2014). Persistence and graduation of college students seeking disability support services. *Journal of Rehabilitation*, 80(1), 22-32.

- Hoffman, J. (2016, November 19). Along the autism spectrum, a path through campus life. *The New York Times*. Retrieved from <https://www.nytimes.com/2016/11/20/health/autism-spectrum-college.html>
- Jirikowic, T., Campbell, T., DiAmico, M., Frauwith, S., & Mahoney, W. (2013). *Students with disabilities in post-secondary education settings: How occupational therapy can help* [Fact sheet]. Retrieved from <http://www.aota.org/About-Occupational-Therapy/Professionals/CY/Postsecondary-Education.aspx>
- Kim, W. H., & Lee, J. (2016). The effect of accommodation on academic performance of college students with disabilities. *Rehabilitation Counseling Bulletin, 60*, 40-50.
- Leedy, P. D., & Ormrod, J. E. (2016). *Practical research: planning and design*. New York, NY: Pearson Education, Inc.
- Lindner, P., Frykheden, O., Forsström, D., Andersson, E., Ljótsson, B., Hedman, E.,... Carlbring, P. (2016). The Brunnsvikén Brief Quality of Life Scale (BBQ): Development and psychometric evaluation. *Cognitive Behaviour Therapy, 45*, 182-195.
- Meyer, T. J., Miller, M. L., Metzger, R. L., & Borkovec, T. D. (1990). Development and validation of the Penn State Worry Questionnaire. *Behaviour Research and Therapy, 28*, 487-495.
- National Center for Learning Disabilities. (2014). *The state of learning disabilities*. Retrieved from <https://www.nclld.org/wp-content/uploads/2014/11/2014-State-of-LD.pdf>
- Pitts, D. B. (2011). Work as occupation. In C. Brown & V. Stoffel. (Eds.). *Occupational therapy in mental health: A vision for participation*. (pp. 695-710). Philadelphia, PA: F. A. Davis.
- Potvin, M-C., Prelock, P. A., Savard, L. (2018). Supporting children with autism and their families: A culturally responsive family-driven interprofessional process. *Pediatric Clinics of North America, 65*(1), 47-57.
- Ramsdell, P. E. (2014). *The college experience of students with disabilities: Do transition planning and climate perception relate to academic success?* (Doctoral dissertation). Retrieved from http://digitalcommons.uri.edu/oa_diss?utm_source=digitalcommons.uri.edu%2Foa_dis%2F276&utm_medium=PDF&utm_campaign=PDFCoverPages.
- Ruble, L., McGrew, J. H., & Toland, M. D. (2012). Goal attainment scaling as an outcome measure in randomized controlled trials of psychosocial interventions in autism. *Journal of Autism and Developmental Disorders, 42*, 1974-1983.
- Schindler, V., Cajiga, A., Aaronson, R., & Salas, L. (2015). The experience of transition to college for students diagnosed with Asperger's disorder. *The Open Journal of Occupational Therapy 3*(1), article 2.
- The Carnegie Classification of Institutions of Higher Education (n.d.). *About Carnegie classification*. Retrieved from <http://carnegieclassifications.iu.edu/lookup/lookup.php>
- U.S. Department of Education, Office of Civil Rights. (2011). *Students with disabilities preparing for post-secondary education: Know your rights and responsibilities* (rev. ed.). Retrieved from <http://www2.ed.gov/about/offices/list/ocr/transition.html>
- U.S. Department of Education, National Center for Education Statistics. (2016). *Digest of Education Statistics, 2015* (2016-014), Chapter 3.
- U.S. Department of Education. (2018). IDEA: Individuals and Disabilities Education Act. Retrieved from <https://sites.ed.gov/idea/>
- U.S. Department of Labor, Bureau of Labor Statistics. (2018, June 21). *Persons with a disability: labor force characteristics — 2017* [News release]. Retrieved from <https://www.bls.gov/news.release/pdf/disabl.pdf>
- U. S. Department of Labor, Bureau of Labor Statistics, The Economics Daily. (2015, July 20). *People with a disability less likely to have completed a bachelor's degree*. Retrieved from <https://www.bls.gov/opub/ted/2015/people-with-a-disability-less-likely-to-have-completed-a-bachelors-degree.htm>

About the Authors

Janette Boney received her B.S. degree in computer science and Master of Science in Occupational Therapy from Stockton University. She received her Doctorate of Occupational Therapy from Thomas Jefferson University. Her clinical experience includes working as an occupational therapist with older adults in home health, and working with K-12 children in school-based practice. She is currently a clinical education support specialist in the Master of Science in Occupational Therapy Program at Stockton University. Her research interests include programs to support college students with disabilities, and exploring occupational therapy's role in the treatment of hoarding disorder. She can be reached by email at: janette.boney@stockton.edu.

Marie-Christine Potvin received her B.Sc. degree in occupational therapy from McGill University, a master's degree in health sciences from the Medical University of South Carolina and her Ph.D. from Mc-

Gill University. Her experience includes working as a pediatric occupational therapist in public schools, home health agencies and outpatient clinic. She is currently an associate professor in the Department of Occupational Therapy at Thomas Jefferson University. Her research interests revolve around maximizing participation and quality of life in those with autism spectrum disorder and other disability. She can be reached by email at: Marie-Christine.Potvin@Jefferson.edu.

Monique Chabot received her B.S. degree in Rehabilitation Studies from University of North Texas, Masters of Science in Occupational Therapy from Thomas Jefferson University, and a Doctorate of Occupational Therapy from Boston University. Her experience includes working as an occupational therapist in geriatric home health with a specialty in environmental modifications and assistive technology. She is currently an assistant professor in the Department of Occupational Therapy at Thomas Jefferson University. Her research interests include assistive technology and environmental design to increase participation of people with disabilities. She can be reached by email at: monique.chabot@jefferson.edu.

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Table 1

GOALS² Program Participant Characteristics Fall 2017 (self-report from client)

	Frequency	Percentage
Gender		<i>n</i> = 10
Male	4	40%
Female	6	60%
Ethnicity*		<i>n</i> = 10
White	4	40%
Black or African American	3	30%
Asian	1	10%
Caribbean American	1	10%
Egyptian	1	10%
Class		<i>n</i> = 10
Freshman	1	10%
Sophomore	3	30%
Junior	3	30%
Senior	0	0%
Graduate	3	30%
Primary Diagnosis**		<i>n</i> = 10
Not Reported	1	10%
Attention Deficit Hyperactivity Disorder	2	20%
Obsessive Compulsive Disorder	1	10%
Learning Disability	2	20%
Deaf/Hearing Impaired	0	0%
Mental Health	3	30%
Physical/Mobility Related	1	10%
Autism Spectrum Disorder	0	0%
Had an IEP or 504 plan in High School		<i>n</i> = 10
Yes	5	50%
No	2	20%
Unsure	2	20%
Not reported	1	10%
Current Place of Residence		<i>n</i> = 10
Residence Hall	3	30%
Apartment, house, condo (not with parents)	2	20%
Live with family member	3	30%
Not reported	2	20%

Continued

	Frequency	Percentage
Birth Year	<i>n</i> = 10	
1991	1	10%
1993	1	10%
1994	2	10%
1995	1	10%
1996	2	20%
1997	1	10%
1998	2	10%

Note. * Participants had the ability to write in their ethnicity if choices did not match how they describe themselves; ** Three (3) students were receiving Accessibility Services for a diagnosis of autism spectrum disorder, however they reported their primary disability under a different category.

Table 2

GOALS² Program Goal Attainment Scaling Results Fall 2017

Type of GAS Goal	Total # of Goals	Total # of Goals Met	Total # of Goals Not Met	Percentage of Goals Met
Academic	9	6	3	66.67
Health and Wellness	7	7	0	100.00
Interpersonal Relationships	3	3	0	100.00
Time Management / Organization	7	5	2	71.43
Totals	26	21	5	80.77

Note. GAS = Goal Attainment Scaling

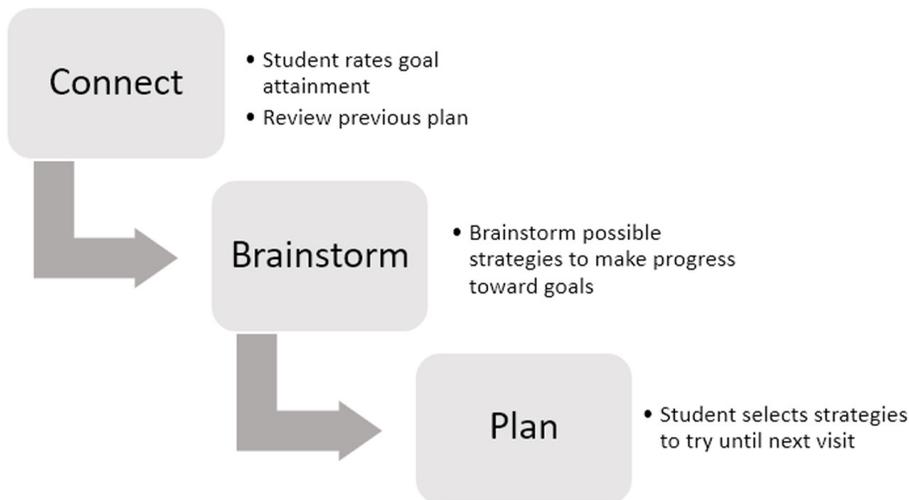


Figure 1. Coaching-in-Context process overview. This figure illustrates the three parts of a student session.

Academic Success	<i>"I've been a little bit more engaged in my homework than I probably ever have been in my life."</i>
Emotional Support	<i>The GOALS² Program "is just really supportive. I came in one day and said [that] I feel like I'm wasting your time because I haven't met any of my goals (...). She (...) said you're not wasting my time, we are here for you and I'm not going anywhere. Just having someone who is not giving up on you, that's like the most important part, I think."</i>
Progress toward Goal Attainment	<i>"I definitely feel like I improved (. . .) from the beginning [of the GOALS² program] (. . .) [with] certain goals (. . .) [such as] studying tips. . . . time management. . . . I feel like I improved a lot more [with] setting goals and time management."</i>
Personal Health and Wellness	<i>"I can't meet academic goals if I don't work on other aspects of my life as well (...). It's the holistic approach that I think is really important."</i>
Decreased Stress and Anxiety	<i>"The [GOALS²] program (...) taught me [how] to greatly reduce the amount of overall stress that would pop up towards the end of the semester. The skills that it provided me are very valuable."</i>
Time Management/Organization	<i>"[The GOALS² program] really helped me organize my ideas and keep track of all the different things I know I need to do."</i>

Figure 2. Illustrative excerpts for each of the themes identified by GOALS2 participants.