CERTIFICATE PROGRAM INSTRUCTIONAL DESIGN PLAN

FOR BEHAVIOR TECHNICIAN LEVEL ONE

CERTIFICATE PROGRAM

rev. 2022.05.20; reviewed 2023.01, 2024.01, 2024.12, 2025.08, 2025.10

OVERVIEW OF PURPOSE OF THE BEHAVIOR TECHNICIAN CERTIFICATE PROGRAM

The Behavior Technician Level One Certificate program provides a standardized, peer-reviewed, evidence-based training program for paraprofessionals**.**

The Behavior Technician Level One Certificate program is designed as an entry-level training program for those paraprofessionals entering the workforce in the role of a behavior technician. The certificate program provides a fundamental training component in the foundations of professionalism, advocacy, positive behavior supports, Autism, and the role of the paraprofessional as a behavior technician.

BEHAVIOR TECHNICIAN LEVEL ONE: This 45-hour program will prepare candidates with a strong basic foundation in the basic concepts and principles of applied behavior analysis within the context of autism treatment and Person-Centered approaches. This course is intended for workforce development to address an immediate broad service need. This course provides the foundation for the next steps in advanced education and training in ABA and Autism. Four hours of this program are focused on Ethics and Professional Behavior. In order to provide career assistance to certificate holders, the program was developed in accordance with both the QABA Board's ABA-T certification and the BACB's RBT certification coursework requirements. As such, certificants can use the completion of the program as proof of completing the coursework portion of either certification process.

The target audience includes the following with little to no background in autism or human services: direct support staff and paraprofessionals seeking to increase/update knowledge and become credentialed as professionals.

Instructional Design Plan

The BTL1 was originally designed using the ADDIE model of instructional design: Analyze, Design, Develop, Implement, Evaluate, which is generally accepted in the training and education industry.

Analyze: A multi-year Needs Analysis was conducted in order to identify and confirm the competency areas of the paraprofessional delivering Applied Behavior Analysis treatment support to individuals diagnosed with autism and related disorders.

Design, Development, and Implementation: Using a proprietary Online Learning Model, Innovative Learning took the core competencies discovered in the analysis stage and created content around the competencies and developed an online, self-paced program. Course Manuals 1 and 2, which outline course presentation and course development were utilized at this stage. Classroom equivalency hours were calculated and implemented using a research-based model. The course has been hosted by Innovative Learning on the College of Applied Human Services website since 2008. It has evolved and been revised over the years due to feedback from stakeholders. As of 2022, the course has been moved to the Strut Learning platform. In December 2024, the course was moved to Tovuti.

Evaluation: At the course level, the final assessment works as the evaluation of the learning outcomes from the course. At the organizational level, a program evaluation is conducted yearly to measure stakeholder and management feedback about the course. Course surveys and direct feedback are the primary means of evaluating the course. Based upon these, course management improves and revises the course and user experience as best as possible.

NEEDS ASSESSMENT

Innovative Learning / College of Applied Human Services (now Optimus Education) conducted a large-scale analysis to identify and confirm the competency areas of the paraprofessional delivering Applied Behavior Analysis (ABA) treatment and support to those individuals diagnosed with autism and related disorders. This process began informally in 2008 and continued through January 2012. In January 2012, formal surveys of candidates and subject matter experts were conducted and continued to June 2014. The information in this report is based on the data from 2012 to present. In

conducting this study, COAHS' (now Optimus Education's) goal was to define the competency areas, knowledge, and skills, in which paraprofessionals needed to be trained in order to deliver ABA treatment and support.

The main difference between the Behavior Level One Certificate Program and the Behavior Technician Level Two is even though both training programs cover the same core competencies, the Behavior Technician Level Two is considered a more advanced training program.

Although there have been several job analyses on the behavioral health paraprofessional workforce including the direct support professional workforce supporting those individuals with a wide range of intellectual and developmental disabilities, this is the first one specifically looking at the paraprofessional providing Applied Behavior Analysis treatment and support to individuals diagnosed with Autism and related disabilities. In conducting the study, COAHS chose methods that adhered to established standards in conducting a job analysis study.

This needs analysis study provided the basis for content validity as the primary process for identifying and confirming existing research on the competency areas needed for proficient training of paraprofessionals. This analysis documents a sound linkage between the professional knowledge and the critical responsibilities and tasks of the paraprofessional.

This analysis consisted of the following steps:

Initial Development and Validation: The identified team researched previous related job analyses within the human services sector to confirm and refine the core competencies of the certificate program. This research focused on studies of the standardization of specific core competencies of the direct support professional within the human services field. The following were the areas of research:

- The Direct Support Professional (DSP) within the Intellectual and Developmental Disabilities Sector
- The DSP within the Behavioral Health Sector
- Best practice guidelines for Individuals with Autism
- Best practice guidelines for providing Applied Behavior Analysis Treatment and Support

Validation Study: A qualified and representative sample of published professionals who have expertise in Autism, Applied Behavior Analysis and Service Providers. (Certified Behavior Analysts, Licensed Psychologists, Educators) reviewed and validated the competency areas for the paraprofessional defined by COAHS' initial development and validation based on the research of established competencies.

Initial Research Team:

- Vicki Moeller, MA, ABAT, Chief Operations Officer, Innovative Learning (current)- United States
- Olive Webb, ONZM, FNZPsS, Ph.D, DipClinPsych, DipHSM, QASP-D, Executive Director, Institute of Applied Human Services (current) –New Zealand
- Michael Weinberg, Ph.D., LP, BCBA-D, Orlando Behavior Health (current)- United States
- Bryan Davey, Ph.D. BCBA-D. , Executive Director Accel (previous)- United States
- Michael Reid, PsyD, Ph.D, President, Founder, Innovative Learning LLC (current)- New Zealand
- Douglas Moes, Ph.D. BCBA-D., President, STAR of California (current) - United States
- Thomas McCool, Ed., Executive Director of Eden Autism Services (past)

Development of Competency Areas: Based on the ratings and confirmation gathered from the professionals listed above, the competency areas were refined and aligned with the current established best practices. Within each core competency area, specific domain competencies were identified and confirmed. Also, looking to

existing certifications for paraprofessionals and practitioners (e.g., Registered Behavior Technician [RBT], Applied Behavior Analysis Technician™ [ABA-T™], Board Certified Assistant Behavior Analyst ® (BCaBA), the Qualified Autism Services Practitioner, (QASP), the Virginia Behavior Technician, and the Nevada Behavior Technician) , program content was further aligned to meet the coursework requirements for these credentials so that the certificate program could be of further practical use to paraprofessionals practitioners who want to get certification in their field.

Validation of Competency Areas: Using the defined core and domain competency areas developed and outlined by the committee of subject matter experts (SMEs), the core and domain competencies were validated by collecting data from Job incumbents (i.e., those who hold the Behavior Technician Certificate and those in roles of supervising paraprofessionals in the behavior technician role).

Development of the Behavior Technician Content: Using the core competency areas, content for the Behavior Technician Level One and Level two programs were created, and peer-reviewed by the committee. Learning outcomes were developed based upon the competency areas. The Innovative Learning Model for Online Learning was used as the basis for development of the online curriculum.

STEP 1: Initial Development

Although the ultimate purpose of the Behavior Technician Certificate Programs is protection of the public, COAHS supports the advancement of an individual's professional potential by providing quality, comprehensive training programs that promote improved service delivery systems within the human services sector.

The COAHS training process focuses on improving accessibility, accountability and coordination among paraprofessionals, professionals and agencies with a view to maximize the quality of life of those individuals diagnosed with Autism Spectrum Disorder and related disabilities.

Innovative Learning and COAHS's highest value is placed on Certificate completers, staff and people whose lives we can assist to improve. With this in mind, the four core values are:

- To work with a spirit of cooperation and collaboration.
- To act ethically and honestly toward our certificate completers, colleagues and community.
- To recognize and appreciate people's similarities and differences.
- To aspire to deliver quality and excellence in all services the ABAT delivers to individuals needing support and treatment.

With the increase in the prevalence of Autism Spectrum Disorder, the Behavior Technician Level One Certificate program establishes the foundation of the entry-level knowledge, skill, and experience in autism and Applied Behavior Analysis. The Behavior Technician Certificate Level One also provides a mechanism for all stakeholders including families, providers, funding sources to ensure those providing direct services to individuals diagnosed with autism have access to quality training in those areas meeting applicable educational and ethical requirements to work in the human services field.

Review of Literature

The first step in the process of developing the competency areas for the Behavior Technician Programs was completing an extensive review of current best practices and established competency areas. It is important to note that the Behavior Technician Certificate Programs in the broad sense are training for entry-level jobs (often referred to as a direct support professional or paraprofessional) and the individuals that perform this job are typically the least educated and least paid, experience high turnover and yet play a vital role in the lives of individuals with intellectual and

developmental disabilities. The direct support professional (DSP), or paraprofessional, is responsible for ensuring that individual support plans, care plans, treatment plans, and interventions are implemented correctly and competently ensuring that the intended outcomes are achieved.

National Workforce Studies. There have been several national work studies on the Direct Support Workforce issues and challenges. While DSPs provide the overwhelming majority of services and support to individuals with developmental disabilities, substance abuse challenges, and serious and persistent mental health issues, they have little professional recognition. (Direct Support Professional Work Group Report, 2007).

Training for DSPs are typically provided by the employer and focus on regulatory procedures rather than the person-centered knowledge and skills identified as key professional competencies that lead to positive outcomes (Taylor, Warren and Bradley, 1996).

The Direct Support Professional Work Group looked at a comparison of Core Competencies for direct support workers across three service areas: Substance Abuse/Behavioral Health; Community Human Services (Intellectual and Developmental Disabilities and Mental Health – 167 Competencies); and Aging (88 Competencies). While there were a number of common competencies that are relevant across all three service types, there were many differences. The Community Support Skill Standards (CSSS) is a comprehensive job analysis conducted by the U.S. Department of Labor (Taylor, Warren and Bradley, 1996). The CSSS identifies 12 competency areas and 144 skills required of entry-level community human service practitioners. The National Alliance for Direct Support Professionals has also articulated competencies and skills required of direct support professionals. Their standards identify 15 broad competency areas and 167 specific skills (NADSP 2007). Within the development disabilities field, a community support model is the dominant philosophical orientation. This model is based on the premise that individuals with disabilities (including Autism) should have lives that are rich with friendship, inclusion in all aspects of community life and are self-determined.

Based on the national job analyses completed, the following core competencies were identified:

- Professional and ethical responsibilities, professional role competencies
- Client, family, and community education
- Participant Empowerment
- Documentation
- Providing Person Centered supports
- Assessment
- Communication
- Supporting Health and Wellness
- Advocacy
- Education, training and self-development
- Crisis Intervention
- Service Coordination

National Alliance of Direct Support Professionals. The National Alliance of Direct Support Professionals identified 15 core competencies, based on the Community Support Skills Standards (CSSS), which were created to define the essence of the work of the direct support professional: participant empowerment; communication; assessment; community service and networking; facilitation of services; community living skills and support; education, training, and self-development; advocacy; vocational, educational, and career support; crisis prevention and interventions; organizational participation; documentation; building and maintaining friendships and relationships; providing person –centered supports; and supporting health and wellness.

Area 1: Participant Empowerment

The direct support professional enhances the ability of the participant to lead a self-determining life by providing the support and information necessary to build self-esteem and assertiveness to make decisions.

Skill Statements

- The competent DSP assists and supports the participant to develop strategies, make informed choices, follow through on responsibilities, and take risks.
- The competent DSP promotes participant partnership in the design of support services, consulting the person and involving him or her in the support process.
- The competent DSP provides opportunities for the participant to be a self-advocate by increasing awareness of self-advocacy methods and techniques, encouraging and assisting the participant to speak on his or her own behalf, and providing information on peer support and self-advocacy groups.
- The competent DSP provides information about human, legal, civil rights and other resources, facilitates access to such information and assists the participant to use information for self-advocacy and decision making about living, work, and social relationships.

Area 2: Communication

The direct support professional should be knowledgeable about the range of effective communication strategies and skills necessary to establish a collaborative relationship with the participant.

Skill Statements

- The competent DSP uses effective, sensitive communication skills to build rapport and channels of communication by recognizing and adapting to the range of participant communication styles.
- The competent DSP has knowledge of and uses modes of communication that are appropriate to the communication needs of participants.
- The skilled DSP learns and uses terminology appropriately, explaining as necessary to ensure participant understanding.

Area 3: Assessment

The direct support professional should be knowledgeable about formal and informal assessment practices in order to respond to the needs, desires, and interests of the participants.

Skill Statements

- The competent DSP initiates or assists in the initiation of an assessment process by gathering information (e.g., participant's self-assessment and history, prior records, test results, additional evaluation) and informing the participant about what to expect throughout the assessment process.
- The competent DSP conducts or arranges for assessments to determine the needs, preferences, and capabilities of the participants using appropriate assessment tools and strategies, reviewing the process for inconsistencies, and making corrections as necessary.
- The competent DSP discusses findings and recommendations with the participant in a clear and understandable manner, following up on results and reevaluating the findings as necessary.

Area 4: Community and Service Networking

The direct support professional should be knowledgeable about the formal and informal supports available in his or her community and skilled in assisting the participant to identify and gain access to such supports.

Skill Statements

- The competent DSP helps to identify the needs of the participant for community supports, working with the participant's informal support system, and assisting with or initiating identified community connections.

- The competent DSP researches, develops, and maintains information on community and other resources relevant to the needs of participants.
- The competent DSP ensures participant access to needed and available community resources, coordinating supports across agencies.
- The competent DSP participates in outreach to potential participants.

Area 5: Facilitation of Services

The direct support professional is knowledgeable about a range of participatory planning techniques and is skilled in implementing plans in a collaborative and expeditious manner.

Skill Statements

- The competent DSP maintains collaborative professional relationships with the participant and all support team members (including family/friends), follows ethical standards of practice (e.g., confidentiality, informed consent, etc.), and recognizes his or her own personal limitations.
- The competent DSP assists and/or facilitates the development of an individualized plan based on participant preferences, needs, and interests.
- The competent DSP assists and/or facilitates the implementation of an individualized plan to achieve specific outcomes derived from participants' preferences, needs and interests.
- The competent DSP assists and/or facilitates the review of the achievement of individual participant outcomes.

Area 6: Community Living Skills & Supports

The direct support professional has the ability to match specific supports and interventions to the unique needs of individual participants and recognizes the importance of friends, family and community relationships.

Skill Statements

- The competent DSP assists the participant to meet his or her physical (e.g., health, grooming, toileting, eating) and personal management needs (e.g., human development, human sexuality), by teaching skills, providing supports, and building on individual strengths and capabilities.
- The competent DSP assists the participant with household management (e.g., meal prep, laundry, cleaning, decorating) and with transportation needs to maximize his or her skills, abilities and independence.
- The competent DSP assists with identifying, securing and using needed equipment (e.g., adaptive equipment) and therapies (e.g., physical, occupational, and communication).
- The competent DSP supports the participant in the development of friendships and other relationships.
- The competent community-based support worker assists the participant to recruit and train service providers as needed.

Area 7: Education, Training & Self-Development

The direct support professional should be able to identify areas for self improvement, pursue necessary educational/training resources, and share knowledge with others.

Skill Statements

- The competent DSP completes required training education/certification, continues professional development, and keeps abreast of relevant resources and information.
- The competent DSP educates participants, co-workers and community members about issues by providing information and support and facilitating training.

Area 8: Advocacy

The direct support professional should be knowledgeable about the diverse challenges facing participants (e.g., human rights, legal, administrative, and financial) and should be able to identify and use effective advocacy strategies to overcome such challenges.

Skill Statements

- The competent DSP and the participant identify advocacy issues by gathering information and reviewing and analyzing all aspects of the issue.
- The competent DSP has current knowledge of laws, services, and community resources to assist and educate participants to secure needed supports.
- The competent DSP facilitates, assists, and/or represents the participant when there are barriers to his or her service needs and lobbies decision makers when appropriate to overcome barriers to services.
- The competent DSP interacts with and educates community members and organizations (e.g., employer, landlord, civic organization) when relevant to participant's needs or services.

Area 9: Vocational, Educational & Career Support

The direct support professional should be knowledgeable about the career- and education-related concerns of the participant and should be able to mobilize the resources and support necessary to assist the participant to reach his or her goals.

Skill Statements

- The competent DSP explores with the participant his/her vocational interests and aptitudes, assist in preparing for job or school entry, and reviews opportunities for continued career growth.
- The competent DSP assists the participant in identifying job/training opportunities and marketing his/her capabilities and services.
- The competent DSP collaborates with employers and school personnel to support the participant, adapting the environment, and providing job retention supports.

Area 10: Crisis Prevention and Intervention

The direct support professional should be knowledgeable about crisis prevention, intervention and resolution techniques and should match such techniques to particular circumstances and individuals.

Skill Statements

- The competent DSP identifies the crisis, defuses the situation, evaluates and determines an intervention strategy and contacts necessary supports.
- The competent DSP continues to monitor crisis situations, discussing the incident with authorized staff and participant(s), adjusting supports and the environment, and complying with regulations for reporting.

Area 11: Organizational Participation

The direct support professional is familiar with the mission and practices of the support organization and participates in the life of the organization.

Skill Statements

- The competent DSP contributes to program evaluations and helps to set organizational priorities to ensure quality.
- The competent DSP incorporates sensitivity to cultural, religious, racial, disability, and gender issues into daily practices and interactions.
- The competent DSP provides and accepts co-worker support, participating in supportive supervision, performance evaluation, and contributing to the screening of potential employees.
- The competent DSP provides input into budget priorities, identifying ways to provide services in a more cost-effective manner.

Area 12: Documentation

The direct support professional is aware of the requirements for documentation in his or her organization and is able to manage these requirements efficiently.

Skill Statements

- The competent DSP maintains accurate records, collecting, compiling and evaluating data, and submitting records to appropriate sources in a timely fashion.
- The competent DSP maintains standards of confidentiality and ethical practice.
- The competent DSP learns and remains current with appropriate documentation systems, setting priorities and developing a system to manage documentation.

Area 13: Building and Maintaining Friendships and Relationships

Support the participant in the development of friendships and other relationships.

Skill Statements

- The competent DSP assists the individual as needed in planning for community activities and events (e.g., making reservation, staff needs, money, materials, and accessibility).
- The competent DSP assists the individual as needed in arranging transportation for community events.
- The competent DSP documents community activities and events.
- The competent DSP encourages and assists the individual as needed in facilitating friendships and peer interactions.
- The competent DSP encourages and assists the individual as needed in communication with parents/family (e.g., phone calls, visits, letters).
- The competent DSP implements individual supports regarding community activities.
- The competent DSP provides incentive or motivation for consumer involvement in community outings.
- The competent DSP assists the individual as needed in getting to know and interacting with his/her neighbors.
- The competent DSP encourages and assists the individual as needed in dating.
- The competent DSP encourages and assists the individual as needed in communicating with social workers and financial workers.

Area 14: Provide Person-Centered Supports

Skill Statements

- The competent DSP provides support to people using a person-centered approach.
- The competent DSP modifies support programs and interventions to ensure they are person-centered.
- The competent DSP challenges co-workers and supervisors to use person-centered practices.
- The competent DSP is knowledgeable about person-centered planning techniques.
- The competent DSP assists individuals in developing person-centered plans.

Area 15: Supporting Health and Wellness

The competent direct support professional promotes the health and wellness of all consumers.

Skill Statements

- Administers medications accurately and in accordance with agency policy and procedures.
- Observes and implements appropriate actions to promote healthy living and to prevent illness and accidents.
- Uses appropriate first aid/safety procedures when responding to emergencies.
- Assists individuals in scheduling, keeping, and following through on all health appointments.
- Assists individuals in completing personal care (e.g., hygiene and grooming) activities.
- Assists with identifying, securing and using needed adaptive equipment (i.e., adaptive equipment) and therapies (e.g., physical, occupational, speech, respiratory, psychological).
- Assists individuals in implementing health and medical treatments.
- Assists individuals to take an active role in their health care decisions.

These core and domain competency areas were also supported through a research project to develop a comprehensive competency-based program in Utah. This project was funded by the DSW National Resource Center, the U.S. Department of Health and Human Services, and the Centers on Medicaid and Medicare Services and the Research and Training Center on Community Living and U.S. Department of Education (Utah White Paper 2008).

State Regulations. To narrow the focus of the job of the DSP further the COAHS Team reviewed several federal and state regulations that have defined the competency areas for those direct support professional providing Applied Behavior Analysis to individuals with Autism (Medicaid, Michigan, Delaware, Virginia, California, Utah, Nevada, Pennsylvania, New Jersey, New York, Florida, North Carolina, Minnesota, and Oregon).

The Virginia Autism Council defined skill competencies for professionals and paraprofessionals in Virginia supporting individuals with Autism across the lifespan. These competencies are based upon consistent findings from the research community. Decades of research have provided a number of evidenced-based strategies effective for the treatment, education, and support of individuals with autism in school and community-based settings. These competencies are based on the best and most promising practices that have been identified through research as critical to address the needs of individuals with autism. The competencies are specific and unique, and/or critical to successfully serving individuals with autism spectrum disorder. (Skill Competency Committee of the Virginia Autism Council, 2010).

The eight skill competency areas defined by the Virginia Autism Council are:

- General Autism Competency Statements
    - Understands the characteristics and diagnosis of autism as defined by the most recent version of the Diagnostic and Statistical Manual
    - Understands the impact of common medical issues (ex: seizure disorders, chronic otitis media, chronic constipation or diarrhea) and treatments (ex. psychotropic medications and possible side effects, use of special diets) for persons with autism.
- Environmental Structure and Visual Supports Competency Statements
    - Understands the importance of the environment and provides a setting that is safe, structured, and promotes independence.
    - Understands how to measure progress and evaluate the effectiveness of strategies.
- Comprehensive Instructional Programming Competency Statements
    - Understands how to assess an individual's strengths and weaknesses and determine appropriate goals.
    - Understands and implements intervention strategies and supports to address the individual's goals.
    - Understands how to measure progress and evaluate the effectiveness of strategies and instruction.
    - Understands the need and benefit of a team to develop programs.
- Communication Competency Statements
    - Understands components of communication and its impact on the day-to-day experience of an individual with autism and how to assess skills for intervention planning
    - Understands a variety of strategies to increase an individual's communication abilities.
    - Understands how to measure progress and evaluate the effectiveness of strategies.
- Social Skills Competency Statements
    - Understands social skill development and the unique social skill deficits and challenges associated with autism and how to assess skills for intervention planning.
    - Understands how to measure progress and evaluate the effectiveness of strategies.
- Behavior Competency Statements
    - Understands factors that influence behavior and the components of behavior analysis (antecedents, behavior, and consequences) and how to provide positive behavior intervention.
    - Understands how to evaluate the effectiveness of a behavior plan reliably and effectively.
- Sensory Motor Development Competency Statements
    - Understands the sensory systems, sensory processing, and sensory motor development.

- Understands the implications or influences of sensory processing when developing a comprehensive plan.
- Understands how to measure progress and evaluate the effectiveness of strategies.

- Independence and Aptitude Competency Statements
  - Understands skills needed for short term and long-term independence and how to assess skills for intervention planning.
  - Understands a variety of strategies to increase an individual's short term and long-term independence in functional and life skills.
  - Understands a variety of strategies to increase an individual's cognitive and learning abilities.
  - Understands a variety of strategies to increase an individual's short term and long-term independence in academic skills.
  - Understands how to measure progress and evaluate the effectiveness of strategies.

Medicaid. The Medicaid and related state funding care program for families and individuals with low income and limited resources have also identified comparable core and domain competencies and requirements for the ABA Aide/Technician/paraprofessional. These requirements include being at least 18 years of age, be able to prevent transmission of communicable disease, be able to communicate expressively and receptively, be able to report on activities performed, be in good standing with the law, be able to perform basic first aid procedures, and be trained in the child's plan of service. The ABA Aide must receive training and demonstrate competency in the following areas:

- The principles of behavior
- Behavioral measurement and data collection
- Function of behaviors
- Basic concepts of ABA
- Generalization and its importance in sustainability of learned/acquired skills.
- Medical conditions/illness that impact behaviors.

The ABA Aide must work under the supervision of a BCBA, LP, LLP or CMHP overseeing the ABA plan. (Michigan Department of Community Health 2012)

STEP 2: Validation Study

The literature review was overwhelming in the sense that there was overlap in the core and domain competencies in each study of what job skills and competencies are needed to provide treatment and support for individuals with Autism and related disabilities. For the most part, the two main sources of information regarding best practice and evidence-based treatment strategies for individuals with Autism was the National Autism Center (2009) National standards report, Randolph, Massachusetts: National Autism Center and the National Professional Development Center on Autism Spectrum Disorders, (2010) Evidence-based practices for children and youth with autism spectrum disorders, U.S. Office of Special Education Programs.

Further research completed by Fred Volkman and his colleagues supported standardization and training, such as done at the National Autism Center. (Evidence-Based Practices and Treatments for Children with Autism and the Yale Child Study Center [2010]).

The team initially identified 19 standards by mapping the general competency areas that are accepted as best practice for a direct support worker against those specific competency areas for those direct support workers providing applied behavior analysis treatment and support to individuals diagnosed with Autism and related disorders based on the above studies. Our panel of subject matter experts (SMEs) and practitioners reviewed our findings and our initial performance domains against the literature and accepted best practices for direct support workers providing ABA treatment and

support for those individuals diagnosed with Autism. They then rated the importance of the competencies as well as made suggestions for consolidating several of the standards into more concise core competencies with more detailed domain competencies.

The initial 19 standards were as follows:

Standard 1: Autism Core Knowledge
Standard 2: Educational and Legislative Requirements
Standard 3: Principles of ABA
Standard 4: Instructional Interventions
Standard 5: Principles of Working with Autism Effectively
Standard 6: Treating Individuals with Challenging Behaviors
Standard 7: Data Collection and Evaluation
Standard 8: Positive Behavior Supports
Standard 9: Discrete Trial Teaching
Standard 10: Transitioning between Activities
Standard 11: Functional Communication and Visual Supports
Standard 12: Asperger's Syndrome and High Functioning Autism *(These are no longer valid or legally allowed diagnoses by the commission that published the then DSMV (now DSMV-TR), the Federal Government, as well as ICD-10 on the international level by W.H.O. which coordinated the then DSMV (now DSMV-TR) in the U.S. with the ICD codes for the first time.)*
Standard 13: Providing Behavioral Health Services
Standard 14: Pivotal Response Treatment
Standard 15: Person Centered Planning
Standard 16: Functional Assessment
Standard 17: Philosophy and Values, and Advocacy
Standard 18: Advocacy
Standard 19: Legal and Ethical Considerations

Having established validation of performance domains, a survey was conducted of professionals to rate whether they included each task in their day-to-day practice and to rate how essential the task is for effective practice. The rating was conducted on a 5-point Likert scale with One (1) being "Not Essential for Effective Practice" and Five (5) being "Considered Fundamental to Effective Practice" (see Figure 1). Respondents were also asked to provide a "1" or "0" rating as to whether they use a particular domain in their day-to-day practice where "1" represents "Yes" and "0" representing "No." This process helped to provide a practical perspective with a view to further validate the job/practice duties.

Figure 1: Scale of Task Importance

Fundamental
5
Very Essential
4
Essential
3
Somewhat Essential
2
Not Essential
1

Survey data highlighted that all of the items were included in day-to-day practice by all respondents (see Table 1). However, there were several suggestions to consolidate some of the competencies into core performance areas and then within the core competencies define more detailed domain performance areas.

Inclusion of Domain in Day to Day Practice	***Respondent 1***	***Respondent 2***	***Respondent 3***	***Respondent 4***	***Respondent 5***	***Respondent 6***	***Respondent 7***	***Respondent 8***	***Respondent 9***	***Respondent 10***	***Item Rating***
Antecedent Analysis	1	1	1	1	1	1	1	1	1	1	***100.00%***
Behavioral Strategies	1	1	1	1	1	1	1	1	1	1	***100.00%***
Comprehensive Behavioral Treatment For Young Children	0	1	1	1	1	1	0	1	1	1	***80.00%***
Joint Attention Intervention	1	1	1	1	1	1	1	1	1	1	***100.00%***
Modeling	1	1	1	1	1	1	1	1	1	1	***100.00%***
Naturalistic Teaching Strategies	1	1	1	1	1	1	1	1	1	1	***100.00%***
Peer Training	0	1	0	1	1	0	1	1	0	1	***60.00%***
Pivotal Response Treatment	1	0	1	1	1	1	1	1	1	1	***90.00%***
Schedules of Reinforcement	1	1	1	1	1	1	1	1	1	1	***100.00%***
Self-Management	1	1	1	1	1	1	1	1	1	1	***100.00%***
Story-Based Intervention	0	1	1	1	0	1	1	1	0	1	***70.00%***
	8	10	10	11	10	10	10	11	9	11	
	72.73%	90.91%	90.91%	100.00%	90.91%	90.91%	90.91%	100.00%	81.82%	100.00%	
Importance of Domain in Day to Day Practice											***Mean Rating***
Antecedent Analysis	5	5	5	5	5	5	5	5	5	5	***4.55***
Behavioral Strategies	5	5	5	5	5	5	5	5	5	5	***4.55***
Comprehensive Behavioral Treatment For Young Children	4	5	5	4	5	5	4	5	5	5	***4.27***
Joint Attention Intervention	3	5	5	5	4	5	5	5	4	5	***4.18***
Modeling	5	5	5	5	5	5	5	5	5	5	***4.55***
Naturalistic Teaching Strategies	4	5	5	5	4	5	5	5	5	5	***4.36***
Peer Training	3	3	4	5	5	2	5	5	3	3	***3.45***
Pivotal Response Treatment	4	3	5	5	5	5	4	5	5	5	***4.18***
Schedules of Reinforcement	5	5	5	5	5	5	5	5	5	5	***4.55***
Self-Management	4	5	5	5	5	5	5	5	5	5	***4.45***
Story-Based Intervention	3	5	3	5	2	5	3	5	4	5	***3.64***

STEP 3: Development of Competency Areas

Based on the ratings and confirmation gathered from the 10 professionals, the competency areas were refined and aligned with the current established best practices. Within each core competency area, specific domain competencies were identified and confirmed. There were 14 core competency areas with 87 domain competencies or skill sets identified

Performance Domain Consolidation Map

BEHAVIOR TECH PERFORMANCE DOMAINS AND LEARNING OUTCOMES
Standard 1: Autism Core Knowledge All candidates will comprehend, and demonstrate a working knowledge of, essential characteristics of Autism Spectrum Disorder (ASD). *Rationale: Understanding the essential characteristics of an individual diagnosed with an ASD provides the foundation for making informed decisions about how to apply Applied Behavior Analysis (ABA) most effectively.* • Describe why Autism is considered a spectrum disorder • Identify the historical definitions of Autism • Identify the currently accepted prevalence rates of Autism • Identify what is meant by the triad of impairments • Demonstrate an understanding of the possible causes of Autism • Identify the common characteristics of Autism • Demonstrate an understanding of all the aspects of Autism
Standard 2: Education, Training & Self-Development All candidates will complete required training education/certification, continue professional development, and keep abreast of relevant resources and information including legislative and educational requirements as it relates to individuals with Autism. *Rationale: Candidates who continue professional development, keep abreast of relevant recourses and information including legislative and education requirements can educate those receiving services, family members, co-workers and community members about issues by providing information and support and facilitating training. A working knowledge of current educational and legislative standards ensures practitioners develop and implement support and treatment plans that meet the legislative and educational.*

2.1 All candidates will comprehend, and demonstrate a working knowledge of, current educational and legislative requirements and best practices for those working with individuals who have been diagnosed with an ASD.

2.2 Candidate will complete a minimum number of continuing education units per year.

Standard 3: Principles of ABA

All candidates will comprehend the principles of ABA and how these form the basis of the mechanisms for support and treatment of modern practice.

Rationale: Candidates who understand the well-researched mechanisms that form the basis of why behavior occurs and what increases and decreases the probability of reoccurrence of behavior is best prepared to develop effective support and treatment plans.

- Identify the common functions of Behavior
- Identify the Main Causes of Behavior
- Describe what is a Target Behavior
- Describe what is an Observable and Measurable behavior
- Identify the difference between Classical Conditioning and Operant Conditioning
- Identify the difference between primary and secondary reinforcers.
- What is meant by the three-part contingency. How ABC analysis can be applied.
- Identify the two main types of behavior.

Standard 4: Instructional Interventions

All candidates will comprehend, and demonstrate a working knowledge of, the mechanisms and strategies for effectively supporting people to learn new behaviors and skills.

Rationale: By understanding and having the ability to support people to learn new skills and behaviors, as well as supporting them to gain general and life skills, people are best placed to maximize self-reliance and independence in order to increase overall quality of life and community involvement.

4.1 Identify the difference between skill deficits and performance deficits

4.2 Implement strategies to overcome skill and performance deficits

4.3 Implement naturalistic teaching methods

4.4 Identify the steps for a direct support professional in preparing for a session

4.5 Implement implementation strategies;

- Task Analyzed chaining procedures
- Discrimination training
- Stimulus control transfer
- Stimulus fading
- Prompt and prompt fading

Standard 5: Principles of working with Autism Effectively

All candidates will comprehend, and demonstrate a working knowledge of, the evidence-based ways of how best to support and treat people diagnosed with an ASD.

Rationale: By understanding those influences that affect a person diagnosed with an ASD, a practitioner is best able to understand what aspects can be manipulated in order to achieve the best outcomes and improve communication and quality of life.

5.1 Identify the different sources of sensory information.

5.2 Explain the impact of different sensory challenges for people with Autism.

5.3 Identify events that can increase anxiety for people with Autism, and techniques they can use to manage this.

5.4 Define restrictive problem solving.

5.5 Evaluate the validity of different biomedical approaches to mitigate the effects of Autism.

5.6 Identify appropriate indicators to use to signify transitioning.

5.7 Identify ways to enable smoother transitions between activities.

5.8 Explain what visual supports are, and how they are used.

5.9 Demonstrate understanding of the goal of visual supports.
5.10 Identify the different types of cards that can be used, and the purpose of each.
5.11 Recall what you need to remember when creating visuals

Standard 6: Treating Individuals with Challenging Behaviors

Rationale: All candidates will comprehend, and demonstrate a working knowledge of, how to apply ABA practice to support and treat people who exhibit challenging behavior. By understanding how to analyze the meaning of a behavior and the purpose it serves, a practitioner can implement those ABA treatment options that will best provide an individual with alternative ways of communicating his/her needs in appropriate, non-challenging ways

6.0 Identify and evaluate the concepts of Proactive and Reactive Models of Behavior Support
6.1 Identify the Phases of Behavior
6.2 Describe the role of the ABAT during any of the Phases Of Behavior
6.3 Explain the concept of Episodic Severity and apply these skills to a scenario
6.4 Identify primary and secondary reinforces
6.5 Demonstrate an understanding on how to implement different types of Reinforcement
6.6 Demonstrate an understanding of a 3-Part Contingency

Standard 7: Data Collection and Evaluation

All candidates will comprehend, and demonstrate a working knowledge of, data collection and evaluation methods specifically related to behavior analysis.

Rationale: Data collection and evaluation is critical for establishing baseline rates of responding and forms the basis for evaluating the effects of treatment and intervention plans. Effective data evaluation allows for continuous modification of treatment plans in order that they can be most effective.

7.1 Demonstrate an understanding on how to prepare for data collection
7.2 Analyze the reliability of data that are gathered.
7.3 Explain how to collect and utilize data in effective and reliable ways.
7.4 Demonstrate how graphs can be used in behavioral support.
7.5 Identify why we gather data about challenging behaviors
7.6 Explain the methods used to gather information about challenging behaviors.
7.7 Implement continuous measurement procedures
7.8 Implement discontinuous measurement procedures

Standard 8: Positive Behavior Supports

All candidates will comprehend, and demonstrate a working knowledge of, how to apply the principles of non-aversive treatment models ahead of aversive options.

Rationale: *It is important in terms of social validity and to ensure respect and dignity, to maximize an individual's social and personal value by developing and implementing positive, non-aversive treatment options before considering aversive alternatives.*

8.1 Describe what Positive Behavior Support (PBS) is
8.2 Identify what makes up the foundation of PBS
8.3 Explain A-B-C relationships
8.4 Identify the function of behavior
8.5 Identify proactive, teaching, and reactive strategies used in PBS

Standard 9: Discrete Trial Teaching

All candidates will comprehend, and demonstrate a working knowledge of, how to use DTT when teaching individuals new skills, behaviors and competencies.

Rationale: DTT is an evidence-based approach to working with individuals diagnosed with a range of developmental disabilities including ASD's. DTT is a proven method for teaching a range of skills, behavior and competencies.

9.1 Identify the purpose of Discrete Trial Teaching.
9.2 Explain how Discrete Trial Teaching is conducted.
9.3 Compare and contrast the benefits and limitations of Discrete Trial Teaching

9.4 Recall how to deliver appropriate consequences.
9.5 Identify the different types of prompts, and explain the hierarchy of prompts.

Standard 10 Pivotal Response Treatment (PRT)

All candidates will comprehend, and demonstrate a working knowledge of, how to use PRT as an integral part of a multi-elemented ABA treatment plan.

Rationale: *PRT is one of the best-studied and validated behavioral treatments for autism. PRT is play based and child initiated. Its goals include the development of communication, language and positive social behaviors and relief from disruptive self-stimulatory behaviors. The use of PRT as an integral part of a multi-elemented ABA treatment plan and can better assure improved outcomes.*

10.1 List and describe the components of Pivotal Response Treatment that target motivation.
10.2 Describe what a pivotal behavior is.
10.3 Identify the four empirically supported pivotal behaviors?
10.4 Distinguish between good and poor examples of the components of PRT
10.5 Identify and describe the three main prompting strategies used in PRT.

Standard 11: Person Centered Planning

All candidates will comprehend, and demonstrate a working knowledge of, how to develop treatment plans using a person-centered approach.

Rationale: *Person-centered planning is a unique, individually focused approach to planning for persons who are in need of services and supports. It is an important vehicle for empowering individuals to have a voice in the planning process and to actively shape their futures. It is a structured way of organizing planning that focuses on the unique values, strengths, preferences, capacities, needs, and desired outcomes or goals of the individual.*

11.1 Describe how Person-Centered Planning works to help to enable individuals with disabilities to increase their self-determination and independence.
11.2 Demonstrate the understanding of Self Determination
11.3 Identify how traditional models have disempowered individuals with disabilities
11.4 Explain why there is a need to move towards patterns that support individuals to have a more positive connection with their community.
11.5 Explain why self-determination is important to all individuals

Standard 12: Functional Analysis

All candidates will comprehend, and demonstrate a working knowledge of, how to conduct effective functional analysis as an integral element of the behavior analysis process.

Rationale: Functional analysis is employed to determine the reason, purpose or motivation for a particular behavior occurring. A functional analysis of behavior requires that data be collected on changes in behavior that occur as a result of the direct treatment intervention. By conducting an effective functional analysis, a practitioner can better ensure a treatment plan is meeting the individual's needs.

12. 1 Define positive behavior supports.
12.2 Identify and explain strategies we can use to help address behavioral problems.
12.3 Define Functional behavioral assessment, and explain how this can help people with challenging behaviors.
12.3 List the techniques of Indirect and Direct Assessment.
12.4 Analyze given data.
12.5 Demonstrate an understanding of a hypothesis statement.
12.6 Explain why FBAs are conducted.

Standard 13: Philosophy, Values and Advocacy

All candidates will understand current philosophies of treatment and the importance of adopting values-based approach to developing support and treatment plans. All candidates will comprehend, and demonstrate a working knowledge of what advocacy is and is not.

Rationale: Although applied behavior analysis as a science includes a variety of conceptual mechanisms that influence behavior, not all are appropriate within the context of treating people in

the pure sense. By understanding socially valid philosophies and values, a practitioner can better assure human dignity and the value of people is preserved. By understanding what advocacy is and is not, a practitioner can be sure to be most effective and maintain professional boundaries while maximizing an individual's independence and self-reliance. 13.1Identify the principles that underpin the philosophy and values of developmental disability support services. 13.2 Define professionalism. 13.3 Demonstrate an understanding of the responsibilities of the paraprofessional regarding professionalism 13.4 Contrast what advocacy *IS* and *IS NOT*
Standard 14: Legal and Ethical Considerations All candidates will comprehend, and demonstrate the ability to develop (as appropriate) and implement treatment plans accounting for legal requirements and are ethically robust. *Rationale: By taking account of legal requirements and ensuring treatment is conducted within an ethically robust framework, practitioners and treatment plans will be legally safe and will better assure people in receipt of treatment are protected and valued.* 14. 1 Demonstrate an understanding of the scope of practice. (Code of Ethics) 14. 2 Demonstrate an understanding of the Health Insurance Portability and Accountability Act 14.3 Identify those conducts and acts, which can be construed to be unprofessional by general ethical standard of practice for an ABAT. 14.4Demonstrate an understanding of the objectives of HIPAA, in particular the Privacy Rule and the Security Rule 14.5 Summarize the legal and ethical requirements regarding client confidentiality. 14.6 Demonstrate an understanding of confidentiality in practice. 14.7 List exceptions to client confidentiality. 14.8 Explain the paraprofessional's obligations in regard to reporting suspected or known child, elder adult, and dependent adult abuse or neglect. 14.9 Define and compare the "duty to warn" and the "duty to protect". 14.10 Demonstrate an understanding of unethical relationships and how those relationships may occur.

STEP 4: Validation of Competency Areas

Standards/Performance Domain Validation

With a view to further validate the day-to-day use, in practice, and the importance of each performance domain as rated by both SME's, a validation survey was conducted. The purpose was to further confirm and increase confidence that the identified Performance Domains are representative of those who are in actual practice.

The survey was conducted using an online survey tool and was sent to 2,634 Applied Behavior Analysis Technicians to validate the committee of SMEs. The survey was sent out and all responses were anonymous in order to better assure the accuracy and honesty of the resulting data. Of the 2,634 survey recipients, 1,163 responded to the survey, or a 44.15% response rate. The confidence interval at the 95% confidence level for the total number of respondents was +/-2.15. This confidence interval was within an acceptable range, as it was less than +/- 5.

The survey requested that each performance standard were rated in two ways.

- How often do you use each Performance Domain in day-to-day practice?
- How important would you rate each Performance Domain for day-to-day practice?

The task was for the respondents to rate each on a five-point scale for each question.

The rating scales were defined as the following:

Rating Scales			
Table 1 (How often)		Table 2 (How Important)	
5	Frequently	5	Fundamental
4	Regularly	4	Very Essential
3	Somewhat Regularly	3	Essential
2	Rarely	2	Somewhat Essential
1	Never	1	Not Essential

Sample Performance Domain ratings can be seen in Appendix A.

Summary of Results

The analysis for the Behavior Technician Level One Certificate Program was conducted to identify and confirm the competency areas of the paraprofessional delivering Applied Behavior Analysis treatment and support to those individuals diagnosed with Autism and related disorders. This process began informally in 2008 and continued through January 2012. In January 2012, formal surveys of candidates and subject matter experts were conducted and continue to June 2015. The literature review took 3 years to complete. The survey was up and running in March 2015.

The process began with a comprehensive literature review to initially identify and validate the core competencies of the paraprofessional. The initial competencies that were identified then were subject to a pilot survey and a large-scale validation survey, in order to assess the appropriateness of the various core and domain competencies and tasks to the paraprofessional. The initial research team and SME committee consisted of ten individuals representing Australia, New Zealand, the United Kingdom and the United States.

With a view to further validate the day-to-day use, in practice, and the importance of each performance domain as rated by both SME's and practicing paraprofessionals, a core knowledge validation survey was conducted. The purpose was to further confirm and increase confidence that the identified Performance Domains are representative of those used in actual practice. The survey was conducted using an online survey tool and was sent to 2,634 paraprofessionals to further validate the committee of SMEs recommendations. The survey was sent out and all responses were anonymous in order to better assure the accuracy and honesty of the resulting data.

The survey requested that each performance standard was rated in two ways.

- How often do you use each Performance Domain in day-to-day practice?
- How important would you rate each Performance Domain for day-to-day practice?

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3	Somewhat Regularly	3	Essential
2	Rarely	2	Somewhat Essential
1	Never	1	Not Essential

The practice analysis results indicate that the 19 core competencies received mean ratings ranging from more than "essential" to at least "very essential". The majority of mean frequency ratings ranged from "somewhat regularly" to "regularly". No core competencies received mean "non-essential" ratings and no core competencies received "never" or "rarely" performed mean frequency ratings. These data were used to derive preliminary test specification, which should be taken into consideration when developing the final test blueprint for the certificate programs.

Performance Domain/Standard	Table 1 Weighting How often is each used in daily practice?	Table 2 Weighting How important is each in daily practice?
Autism Core Knowledge	4.6	5
Educational and Legislative Requirements	2.8	3.5
Principles of ABA	4.6	4.9
Instructional Interventions	4.2	4.6
Principles of Working with Autism Effectively	4.6	4.8
Treating Individuals with Challenging Behaviors	4.3	4.4
Data Collection and Evaluation	4.4	4.3
Positive Behavior Supports	5	4.5
Discrete Trial Teaching	3.6	3.6
Transitioning between Activities	4	3.9
Functional Communication and Visual Supports	4	3.9
Asperger's Syndrome and High functioning Autism	2.8	4
Providing Behavioral Health Services	3.4	3.8
Pivotal Response Treatment	3.8	3.7
Person Centered Planning	4.5	4.1
Functional Analysis	4.3	4.4
Philosophy and Values	4.5	4.5
Advocacy	4	4
Legal and Ethical Considerations	4.3	4.4

* Asperger's Syndrome and High Functioning Autism *(These are no longer valid or legally allowed diagnoses by the commission that published the DSMV TR, the Federal Government, as well as ICD-10 on the international level by W.H.O. which coordinated the DSMV TR in the U.S. with the ICD codes for the first time.)*

Discussion

CoAHS (now Optimus Education) must work diligently and review any new evidence-based practices, emerging best practices, and new laws and regulations that oversee the paraprofessional role. Since the role of the paraprofessional is emerging as new Federal, State, and Health care regulations are being identified and approved, the Job Analysis Committee will need to review the scope of the Behavior Technician Certificate Program on an annual basis using the survey data and current laws, regulations, and current best practice and evidence-based ABA treatment strategies. Specific policies and procedures will be refined during the 2015-2016 operating year.

The Behavior Technician Certificate Program set precedents for those direct support paraprofessionals in the emerging acknowledgment and practice of Applied Behavior Analysis in the Behavioral Health sector and the standardization of training.

The analysis highlighted the need for the development of industry standards. The development of industry standards provides a framework for ensuring unlicensed paraprofessionals, who are delivering more than 80% of the covered ABA benefits, are appropriately trained and credentialed.

As such, the Behavior Technician Certificate Program is set to become a training process that creates a risk management mechanism for the protection of all stakeholders including the members, families, payors, community, providers, and practitioners.

This needs analysis has informed the original development of a standardized entry-level training program. Going forward, a needs analysis will continue to be performed every five years, or sooner if changes in the field deem it necessary, in order to ensure that the purpose, scope, learning objectives, and content remain consistent with the needs of the field of behavior analysis in general, and the behavior technician role.

Appendix A –

Performance Domain Consolidation Map

• Autism Core Knowledge Subsumed:
  • Working with Autism (previously Standard 5)
  • Asperger's Syndrome and High Functioning Autism (previously Standard 9)

• Education, Training & Self-Development
• Principles of Applied Behavior Analysis
• Instructional Interventions
• Principles of working with Autism Effectively
• Treating Individuals with Challenging Behaviors Subsumed: • Behavioral Health Services (previously Standard 12)
• Data Collection and Evaluation
• Positive Behavior Supports

• Discrete Trial Teaching
• Pivotal Response Treatment (PRT)
• Person Centered Planning   • Transitioning Between Activities (previously Standard 13)
• Functional Analysis Subsumed: • Functional Communication and Visual Supports (previously Standard 11)
• Philosophy and Values Subsumed (to become " Philosophy and Values and Advocacy):   • Advocacy (previously Standard 18).
• Legal and Ethical Considerations

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PROGRAM SCOPE AND INTENDED LEARNING OUTCOMES

PROGRAM DESIGN, DEVELOPMENT, AND IMPLEMENTATION

Using the Needs Assessment as the basis for program development, the Behavior Technician Level One Certificate Program was developed with the intent to train direct support professionals at the most basic entry level position using the core competencies outlined in the extensive needs analysis study. Thus, the program scope focuses upon teaching the learner to comprehend, define, utilize, and master the core competencies in the needs analysis. In developing the program around the core competencies, the following lesson topics were developed as a course outline.

1. Philosophy, Values, and Advocacy
2. Professionalism
3. Autism Spectrum Disorder (ASD)
4. Historical Definition of Autism
5. The Prevalence of Autism
6. Causes of Autism Spectrum Disorder
7. Types of Challenging Behaviors
8. Causes of Challenging Behaviors
9. Models for Behavior Support Planning (Part 1)
10. Models for Behavior Support Planning (Part 2)
11. Positive Behavior Supports
12. Responding to Challenging Behavior
13. Reinforcement (Part 1)
14. Reinforcement (Part 2)
15. Introduction to Pivotal Response Treatment
16. Discrete Trial Teaching (DTT)
17. Data Collection
18. Session Notes
19. Person Centered Planning
20. Functional Communication and Visual Supports
21. Biomedical Issues
22. Legal and Ethical Considerations
23. Transitioning Between Activities

The intended learning outcomes for Behavior Tech Level One is for each certificate holder to be able to show mastery of each competency by being able to not only remember the competency but to be able to comprehend it to be able to eventually apply each competency in practice.

With this in mind, while developing the course the SMEs used the competencies/lessons named above and re-examined the 87 learning outcomes based upon the 14 performance domains found in the needs analysis. Based upon the current evidence-based research and best practices, learning objectives were developed to more closely operationally measure conceptual understanding of each domain at the appropriate beginner level while remaining within a 45-hour course format. In order to ensure alignment of course assessment with program purpose, scope, and learning objectives, test construction procedures were followed (See BT-L1 Technical Report).

As topics evolved and the nature of the field changed, the original outline above has changed over the years. For the most recent course outline and intended learning outcomes, please see below.

As of August 2025, the course learning objectives and lesson outline are as follows:

Course Outline and Intended Learning Outcomes

Lesson 1- Recommendations and Fieldwork Verification

Behavior Technician Recommendation

Lesson 2 – Advocacy

Objectives As a result of completion of this module, the participant will be able to:

- Identify the principles that underpin the philosophy and values of developmental disability support services within the school setting
- Contrast what advocacy *IS* and *IS NOT*

- What is Advocacy
- What is Not Advocacy

Lesson 3: Professionalism

Objectives As a result of completion of this module, the participant will be able to:

- Define professionalism.
- Define the responsibilities of the behavior technician regarding professionalism.

Lesson 4-Autism is a Spectrum Disorder

Objectives As a result of completion of this module, the participant will be able to:

- Describe autism spectrum disorders (ASD) in general.
- Define the 3 Levels of Autism (not included on exam)

Lesson 5: Historical Definition of Autism

Objectives As a result of completion of this module, the participant will be able to:

- Identify people and organizations that have played and continue to play an important role in autism research.
- Identify behaviors that may indicate possible ASD
- Identify what type of disorder autism is.

Lesson 6: The Prevalence of Autism

Objectives As a result of completion of this module, the participant will be able to:

- Identify the currently accepted prevalence of autism in the United States.
- List possible reasons accounting for the increase in prevalence of autism.

Lesson 7: Causes of Autism Spectrum Disorder

Objectives As a result of completion of this module, the participant will be able to:

- Identify the possible causes of autism.
- List reasons why there is no single definite cause of autism

Lesson 8: Challenging Behaviors

Objectives As a result of completion of this module, the participant will be able to:

- Identify the types of challenging behaviors.
- Identify which type of challenging behavior is being displayed

Lesson 9: Causes of Challenging Behaviors

Objectives As a result of completion of this module, the participant will be able to:

- Identify the main causes of challenging behaviors.
- Define the functions of behaviors.

Lesson 10: Models for Behavior Support Planning

Objectives As a result of completion of this module, the participant will be able to:

- Identify the Phases of behavior
- Describe the role of the Support Staff during any of the Phases of behavior.
- Define the concept of Episodic Severity, and apply these skills to a scenario.
- Define the core concepts of proactive models of support.
- Define the core concepts of reactive models of support

Lesson 11: Positive Behavior Supports

Objectives As a result of completion of this module, the participant will be able to:

- Define positive behavior supports.
- Identify strategies we can use to help address behavioral problems.
- Define Functional Behavioral Assessment (FBA)

Lesson 12: Responding to Challenging Behavior

Objectives As a result of completion of this module, the participant will be able to:

- Identify strategies you could use to respond to challenging behaviors.
- List things to avoid when responding to challenging behaviors.
- Define what is meant by the conflict cycle, and how to avoid becoming involved in it.

Lesson 13: Reinforcement - Introduction and Contingencies

Objectives As a result of completion of this module, the participant will be able to:

- Define the difference between primary and secondary reinforcers.
- Identify the different types of reinforcers.
- Identify how to use reinforcers.
- Define the three-part contingency.
- Identify the application of the ABC contingency.

Lesson 14: Discrete Trial Teaching (DTT)

Objectives As a result of completion of this module, the participant will be able to:

- Identify the purpose of Discrete Trial Teaching.
- Define the steps of Discrete Trial Teaching
- Compare and contrast the benefits and limitations of Discrete Trial Teaching.
- Define the way to deliver appropriate consequences.

Lesson 15: Introduction to Pivotal Response Treatment (PRT)

Objectives As a result of completion of this module, the participant will be able to:

- Define two main types of behavior.
- Compare and contrast the differences between traditional structured methods and naturalistic methods of teaching individuals with autism that influenced the development of PRT.
- List the components of Pivotal Response Treatment that target motivation.
- Define a pivotal behavior
- Identify the four empirically supported pivotal behaviors.

Lesson 16: Transitioning Between Activities

Objectives As a result of completion of this module, the participant will be able to:

- Identify appropriate indicators to use to signify transitioning.
- Identify ways to enable smoother transitions between activities.

Lesson 17: Data Collection

Objectives As a result of completion of this module, the participant will be able to:

- List components of collecting and utilizing data in effective and reliable ways.
- Demonstrate how graphs can be used in behavioral support.

Lesson 18: Session Notes

Objectives As a result of completion of this module, the participant will be able to:

- Define what the purpose of a session note
- List components of a good session note
- Differentiate between objective and subjective descriptions of behavior

Lesson 19 Person-Centered Planning

Objectives As a result of completion of this module, the participant will be able to:

- Define Person-Centered Planning.
- List reasons how Person-Centered Planning works to help to enable individuals with disabilities to increase their self-determination and independence.

Lesson 20: Functional Communication and Visual Supports

Objectives As a result of completion of this module, the participant will be able to:

- Identify kinds of visual supports
- Define the goal of visual supports.
- Identify the different purposes of visual support cards
- List things to remember when creating visuals.

Lesson 21:Telehealth in ABA: Revolutionizing Access to Behavioral Services

Objectives As a result of completion of this module, the participant will be able to:

- Define telehealth and its application in ABA.
- Describe the various applications of telehealth in ABA, including parent training, behavioral assessments, direct therapy, and supervision.
- Identify the benefits of telehealth in ABA, such as increased accessibility, convenience, and cost-effectiveness.
- Recognize the challenges of telehealth in ABA, including technology barriers, engagement issues, and privacy concerns.

- Understand best practices for implementing telehealth in ABA, including pre-session preparation, engagement strategies, and data collection.
- Analyze the ethical considerations of telehealth in ABA, including informed consent, confidentiality, and cultural sensitivity.
- Evaluate the potential impact of telehealth on the future of ABA service delivery.

Lesson 22: ASD Medical Concerns

Objectives As a result of completion of this module, the participant will be able to:

- Identify how to determine the validity of different biomedical approaches to mitigate the effects of autism.

Lesson 23: Legal, Ethical, and HIPAA Considerations

Objectives As a result of completion of this module, the participant will be able to:

- Identify some of the legal and ethical considerations for supporting people with challenging behaviors.
- List ways in which you are able to strengthen your relationship with people with challenging behaviors.
- Define the components of HIPAA.

Lesson 24: Instructor Exercises

- After completing the online modules, the learner moves on to the instructor exercises, which are short answer questions relating to the field of ABA and the content of the course. The purpose of these exercises is for the student to show a higher level of mastery of the concepts taught in the course. The learner enters the answers into the allotted space in the course. The instructor manually grades the exercises. The instructor will then either pass the student or give him/her feedback and ask the student to resubmit the answer. This exchange continues until the learner correctly answers the questions.

Lesson 25: Final Exam

- After completion of the lessons, passing the knowledge checks at 90% or higher and the instructor-led exercises, the student will then be asked to take a final exam. The final exam consists of information already encountered throughout the course. The learner is expected to pass the final exam at the current cut score. The learner has two attempts to pass the final exam. If he or she is unable to pass by the second attempt, the learner must retake the course.

Lesson 26: End of Program Survey

- Must be completed by student for course to be marked as finished

After all requirements have been met, the system and/or the student alerts Optimus Education that the course has been completed. Once completion is verified, the certificate is manually issued by Optimus Education.

Once the program content was determined by the Needs Analysis, and refined by further review, the curriculum was designed, developed, and delivered utilizing Innovative Learning's Learning Model and documented curriculum development processes. Innovative Learning has outlined a detailed curriculum design and development process in three documented Course Manuals: Course Structure, Course Development, and Stakeholder Satisfaction. The manuals along with the Innovative Learning Model describe the process used to design, develop and deliver the certificate programs. Please refer to the manuals for detailed explanation on how the Behavior Technician Level One Certificate Program was developed for online training.

The program design can be found in Manual One (1) – Course Presentation

1. Introduction to Innovative-Learning.com
2. CALCULATE
3. Presentation Structure
   - **3.1** Login Page
   - **3.2** Welcome Page
   - **3.3** How to Use This Site
   - **3.4** Course Help
   - **3.5** Modules and Course Quizzes
   - **3.6** Introduction to Randomized Quiz
   - **3.7** Quiz
   - **3.8** "Take A Break"
   - **3.9** Completion of Modules
   - **3.10** Congratulations Page
4. Summary
5. Appendices

The development of the certificate program from content gathering from SMEs, to the identification of the learning outcomes, quiz development, the organization into lessons, and then the building of the programs into an online distance learning format is a planned methodical process. This process is based on the Innovative Learning Model. The process is described in the IL Learning Model and then operationalized in the Course Manuals (Manual 1, Manual 2, and Manual 3). The course manuals serve as a reference guide and tool for the SMEs, Course development and design staff, as well as the technical support team.

Manual Two (2) – Course Development

1. Innovative-Learning.com Mission Statement
2. Lesson Development
   - **2.1** Identifying Lesson Topics
   - **2.2** Lesson Content
   - **2.3** Lesson Testing

3. Content Development
   - **3.1** Lesson Content Creation
   - **3.2** Building Quizzes
     - **3.2.1** Question Formation
     - **3.2.2** Size of Quiz
     - **3.2.3** Pass Criteria
     - **3.2.4** Feedback
     - **3.2.5** End of Lesson
     - **3.2.6** Graphics
   - **3.3** Peer Review
4. Online Reference Tools
   - **4.1** Glossary of Terms
   - **4.2** FAQs
   - **4.3** Digital Library
   - **4.4** Personal Onscreen Notes
5. Course Evaluation Survey
   - **5.1** About Course Survey
   - **5.2** How Accessed
6. Summary
7. Appendix

EVALUATION OF LEARNER ACHIEVEMENT

Evidence-based learning assessment protocols

The learning assessment protocols used in BTL1 follows Bloom's Taxonomy of Educational Objectives which is a widely accepted educational framework used by generations of teachers (Original citation: Bloom, B. S. (1956). Taxonomy of Educational Objectives, Handbook I: The Cognitive Domain. New York: David McKay Co Inc.).

The framework created by Bloom and his colleagues consisted of six major categories ranging from simple to complex: Knowledge, Comprehension, Application, Analysis, Synthesis, and Evaluation. Starting with the simplest category "Knowledge," each category was a precondition to being able to move to the next more complex category.

The summative learning assessment in Behavior Technician Level One follows Bloom's Taxonomy by testing for knowledge and comprehension. While the course does require application of knowledge, that is primarily through the 15-hours of supervised fieldwork (and not in the final assessment).

Learner Assessments

All testing is developed on the basis that learners must demonstrate "Competent Subject Matter Knowledge" (CSMK) in order to complete the course. In general, a learner who has attained CSMK is considered to have enough knowledge to apply it safely, effectively and efficiently in practice. While attainment of CSMK might suggest a minimum standard, Optimus Education has established the CSMK concept to establish that standard at a level which reflects the nature and importance of the subject matter itself. The nature of Optimus Education's Human Services education is heavily focused on training individuals who treat and support people who may have significant needs due to disability or illness. Thus, it is considered imperative that the minimum is set at a level that respects the deserving nature of individuals receiving said services.

Behavior Technician Level One has all required readings embedded within the course material. Recommended and supplementary materials are available to download. All topic assignments are integrated within course completion

requirements online. All work is sequential in order so that concepts, competencies and objectives build upon each other as per Bloom's Taxonomy which forms the basis of how a program's educational objectives are developed.

A typical lesson within a course requires a candidate to:

Study materials, complete readings etc. Demonstrate conceptual understanding and recall of core content through probe quizzes Review material where weaknesses or misunderstandings are identified Re- demonstrate conceptual understanding and recall of core information Final review of lesson materials Pass final assessment at cut score. A program will have a varying number of lessons dependent on the course or topic.

Instructor Exercises. Assignments external to the online course lessons are required instructor exercises. Demonstration of understanding is assessed using the competency testing process described in the provided materials. Competencies are tested using a range of testing procedures as described below.

For example: A candidate may be required to demonstrate they have gained an understanding of what constitutes an appropriate response in a given situation. In such an example, a scenario is presented and they are required to select a response on two levels:

- **Reactive Response:** What will they do in the "here and now"?
- **Proactive Response:** What can you do in the future to minimize or maximize (dependent on the desired outcome) the likelihood of a situation reoccurring?

Candidates are tested continually for skill mastery throughout the study process. Concepts and defined competencies are tested upward of three times prior to being able to complete the program.

Method of Evaluation: Behavior Technician Level One is an online asynchronous distance learning course. There are three forms of assessment in Behavior Technician Level One: probe quizzes, instructor exercises, and final exam. The probe quizzes and instructor exercises are used as instructional techniques, while the final exam is the assessment portion of the course.

Students must participate in all lessons for each class and attain 90% or higher average on the instructional techniques used in the course: probe quizzes; and instructor exercises. Probe quizzes are based upon content of the prior few lessons and are not inclusive of material in other areas. Probe quizzes are multiple-choice and graded automatically through the online learning management system. Thus, the feedback for assessment is immediate. If a learner does not pass the probe quiz at 90% or higher, the learner "fails" and then must go back and review the material, and retake the quiz until they reach the 90% pass rate. Once a learner passes a probe quiz at 90% or higher, the score is saved as part of his/her coursework profile as a "pass." Previous attempts that scored below 90% and were marked as "failed" are not saved in the learner's record.

At the end of each program are Instructor Exercises which are competency-based short answer exams. The exams were developed by a team of professionals in the human services field to reflect real and actual knowledge that learners should master before completing the course. A general scoring rubric is followed for instructors to follow to determine correct answers. With instructor exercises, the learner enters the answer into the learning management system. Students are notified immediately that grading can take up to a week. The learner reads each question and enters his or her answer in the system. The learner is notified by email when the instructor has graded it. If a learner does not enter a satisfactory answer on the first attempt, the instructor provides feedback about the answer and asks the learner to re-submit or expand upon their original answer. This back-and-forth method is utilized until the learner arrives at an answer which answers the question correctly and shows full comprehension of the intended learning outcome. The exercises are graded on a pass/fail scoring rubric. The learner must "pass" all instructor exercises in order to complete the course – any previous "fail" grades are not saved.

At the end of the course, there is a final exam. Learners are required to pass the exam at the current cut score rate (to be updated annually) and are given unlimited attempts at retakes as CSMK is the goal.

Students are required to participate in the online courses and complete probe quizzes and instructor exercises based on the 90% or higher performance criterion. Final exams must be passed at the current cut score rate. A Course Certificate will be given contingent upon mastery of exams, completion of all course lessons, and full payment of all tuition and/or fees.

The following procedures will ensure that the BTL1 program continues to align the intended learning outcomes with course learning activities and summative assessments.

Ongoing needs assessments occur annually through:

- Student satisfaction surveys and completion data.
- Employer and supervisor feedback.
- Advisory group (BTEC Council) reviews.
- Monitoring of regulatory and statutory updates.

Findings from needs assessments inform the **program purpose, scope, intended learning outcomes, certificate requisites, and certificate term**.

Consistency with Purpose, Audience, and Scope

The BTL1 Certificate Program is designed for **entry-level learners preparing to work as behavior technicians under supervision**. Optimus Education ensures consistency by:

- Restricting program scope to foundational competencies appropriate for paraprofessional-level practice.
- Designing learning activities that reflect technician-level responsibilities (e.g., data collection, reinforcement, basic intervention procedures).
- Reviewing curriculum annually to confirm alignment with program purpose, scope, and target audience.

6. Alignment of Learning Outcomes, Activities, and Assessments

Optimus Education ensures alignment by mapping each intended learning outcome directly to corresponding learning activities and summative assessments.

Example:

- **Learning Outcome:** “Define and identify positive reinforcement.”
- **Learning Activity:** Watch demonstration video, complete guided practice scenarios, role-play reinforcement delivery.
- **Summative Assessment:** Exam item requiring classification of reinforcement examples; applied task demonstrating reinforcement selection.

This alignment ensures that learners not only acquire knowledge but also demonstrate applied competency before certificate issuance.

SECURITY

Learner Identity

Learners are asked to enter their information such as: name, address, phone number, level of education, job title, gender, birthdates, and ethnicity and by clicking submit they are verifying that this information is true. In addition, they are told that to be able to enroll in the program, they must confirm that they are at least 18 years of age, and have a high school diploma before they are given access to the course. Also, learners are working directly under a supervisor who is trusted to be monitoring the learner's access and course progress.

For more information on system security, please refer to Optimus Education's Assessment Security and Identity Verification Policy.

SCORING PROTOCOLS

Philosophy of criterion-referenced testing

Optimus Education employs criterion-referenced testing because content is clearly defined by set criteria laid out in required standards that must be met. Criterion-referenced testing has emerged over the past several decades as a multifaceted concept (Berk, 1980). Generally, a criterion-referenced examination is designed to ascertain an individual's competencies. Content guidelines for each test and examination are often derived from the results of processes and procedures inventories, competency verification studies, job analysis studies and expert opinion of professional practice in the field. While these are important, Optimus Education must also ensure examination items are aligned with the required standards mandated by professional bodies as well as Federal and State departments. These content guidelines link the skills and knowledge (theoretical and practical) expected of a competent practitioner. Because a test score from a criterion-referenced test is interpreted as a measure of how well a candidate performs in relation to the range of tasks and content domains represented by the test items, rather than the performance of other candidates, content competencies must be carefully determined prior to item development or test construction.

In a norm-referenced test, a table or schema is generally used to define the content areas to be measured (Ebel & Frisbie, 1991). However, decisions concerning whether the test functioned as intended are entirely determined by the candidate performance statistics on that test. A norm group of candidates is used to set the standard, and decisions to pass or fail are made by comparing the performance of the candidates to that of the norm group.

In criterion-referenced testing, analysis of the examination occurs both before and after the administration of the test. Statements of competence with clearly delineated content provide a basis for writing items. Optimus Education testing is composed of items that are representative of the field of human services practice and written to measure the knowledge and skills of qualified candidates as required by established standards. The items are content valid, because they are written to be representative of the content domain. This assumption can be made because writers work from established standards that are valid for the field of practice. The development of the testing process has specific characteristics

Rationale for Learner Assessments (edited March 2017)

The main method of assessing learner outcomes is through a final exam at the end of the course.

Final learner assessments allow for the learner assessments to be easily subjected to quality control. Quality control is a formal systematic process designed to ensure that expected quality standards are achieved during scoring, equating, and reporting of probe quiz scores. However, we still have to define the "components" of quality control. Based on Kolen and Brennan's (2004, p. 309) list of quality controls with which to monitor quality, the following outlines the basic process by which quality is better assured:

- Check that the administration conditions are followed properly.
- Check that the answer key is correctly specified: The answer key is driven by an electronic database and thus helps assure accuracy of scoring and avoid mistakes.
- Check that the items appear as intended.
- Check that the score distribution and score statistics are consistent with those observed in the past.

Although the above is a partial list that deals mainly with the equating process, it constitutes an excellent starting point with which to better assure quality and help avoid possible mistakes that these checks can reveal.

Because these test items are criterion-referenced, correct responses are definitive and therefore are less open to interpretation. As such, test items can easily be electronically marked which better assures accuracy; consistency of scoring and quality.

Learning techniques include probe quizzes and instructor exercises. These are used as teaching instruments, rather than learning assessments throughout the course. Probe quizzes are multiple-choice quizzes based upon the material immediately prior to the quiz. The answers are kept in an online database and scored immediately. The second type of learning technique in the certificate programs is the instructor exercise assessment. These are short answer questions graded by the instructor directly. In tandem with the probe quizzes, the short answer format provides an open-ended question which requires the learner to create an answer. This format allows assessment in both knowledge and comprehension, but unlike multiple-choice probe quizzes, allows the learner to demonstrate the ability to apply the concept to everyday practice. In addition, unlike multiple choice questions, there is no opportunity for the learner to guess, he or she must answer the question directly.

By using a combination of both multiple-choice questions and short answer, the learner is being taught on multiple levels to show not only recall, but also comprehension and application of the information.

Passing Standard (edited March 2017)

The final exam passing standard is based upon a criterion-referenced standard. A cut score study is performed on each final exam to determine the correct passing standard for the course.

Scoring Rubrics

The answer key to the summative assessment is kept in an online database and is graded automatically.

Storage of Assessment Scores

Once a learner passes a probe quiz or the final exam, the score is saved as part of his/her coursework profile. In the instructor exercises, the exercises are marked as passed or failed. If a student "fails" an exercise, the learner must reconsider their answer and resubmit. The learner must "pass" all instructor exercises in order to complete the course – any previous "fail" grades are not saved.

CERTIFICATE PROGRAM REQUISITES

(Updated October 2019 edited October 2016)

BEHAVIOR TECHNICIAN LEVEL ONE

Program Entry Requirements. Because the intent of the certificate program is to provide training to fulfill a workforce need in an area which hires individuals with the least experience, with little educational background, and experiences a high turnover rate, the program entry requirements were aligned with the most basic requirements for entry level jobs as paraprofessionals: 1) must be at least 18 years old, 2) must have a minimum of a high school diploma or its equivalent. The stated tuition fee must also be paid before entering the program.

Certificate Requisites. Following Innovative Learning's Learning Model, the certificate requisites were designed in order to ensure that learners achieved not only recall/retrieval of the competencies, but are also able to comprehend the competencies and apply them in everyday practice. As such, as outlined in Innovative Learning's Learning Model, the requisites to complete the certificate are to: (1)provide a professional recommendation, (2) provide proof that he/she has a minimum of 15 hours of fieldwork, (3) complete coursework quizzes at 90% or higher passing rate, (4) pass final exam at most current cut score, to be updated as needed, (5) complete and pass all instructor exercises, (6) complete the online survey, (7) Agree to terms and conditions (Code of Ethics, Supervision Requirements, Role of a BTL1), (8) Agree to inclusion in public registry as a source of primary source verification for third parties which allows the learner to unlock the certificate of completion. *Note: Behavior Technician Level One has an additional requirement of a 180-day time limit so that the coursework meets the requirements for further credentialing as an ABAT or RBT, if the learner would like to pursue it.* If the learner does not complete the coursework in the 180-day time limit, the learner is automatically locked out and must petition the Director of Programs to be reinstated. Updated January 2018.

How Requisites Align with Course Purpose, Scope, and Intended Learning Outcomes

- Recommendation by immediate Supervisor (professor, teacher, mentor, work supervisor)
  - Shows that the individual is a direct service professional working under a supervisor
- Completion of 45 hours of coursework and instructional supports and probe quizzes at 90% criteria pass rate
  - Show that the competencies are learned at an acceptable level
  - 45 hours is the industry standard for an entry level training program
- Complete 4 instructor-led exercises overseen by a BCBA-D
  - Provides learner to show not just retrieval of knowledge, but comprehension of competencies
- Verification of a minimum of 15 hours of "on the job" training and demonstration of skills by a licensed or board-certified supervisor.
  - Allows for the learner to move beyond retrieval of knowledge, and comprehension, to application of competencies in real world situations
- Pass a standardized psychometrically sound final assessment. Cut Score: 72.78 % (passing score)
  - Proves the learner has achieved Competency Subject Matter Knowledge
- Complete online survey for continued quality assurance and management
  - Allows for the evaluation of the program to continue
- Agree to terms and conditions (Code of Ethics, Supervision Requirements, Role of a BTL1)
  - Shows that the paraprofessional is aware of the professional responsibilities of the job
- Agree to inclusion in public registry as a source of primary source verification for third parties
  - Allows stakeholders and certificants alike to have real-time access to the completion and status of certificate.

How the BTL1 Certificate Requisites Align with ANAB E2659-24 (6.1.3.2)

Standard 6.1.3.2: *"The certificate requisites shall be consistent with the program purpose, target population, scope, and intended learning outcomes."*

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1. Program Purpose

The BTL1 Certificate Program is designed to prepare individuals to serve as **entry-level behavior technicians** working under the supervision of certified professionals. The purpose is to equip learners with foundational knowledge and skills in applied behavior analysis (ABA) necessary for competent, ethical, and effective service delivery.

Consistency: Certificate requisites (successful completion of coursework, demonstration of competencies, and passing summative assessments) directly support this purpose by ensuring that only learners who have demonstrated minimum entry-level competencies earn the certificate.

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2. Target Population

The target population for BTL1 is:

- Individuals new to the field of ABA.
- Prospective behavior technicians seeking foundational training for employment.
- Students preparing to work under supervision, not independently as analysts.

Consistency: The requisites (completion of a 40-hour online program, adherence to ethical and professional conduct, and passing aligned assessments) are appropriate and attainable for this entry-level audience. They do not require advanced academic prerequisites, maintaining accessibility for the target population.

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3. Program Scope

The scope of the BTL1 program includes:

- A **40-hour training** covering ABA fundamentals.
- Core competencies such as reinforcement, data collection, ethical responsibilities, cultural awareness, and client rapport.
- Emphasis on **applied, technician-level tasks**, not advanced analysis or treatment planning.

Consistency: The certificate requisites are scoped to match this defined program: learners must complete all modules, participate in applied learning activities, and demonstrate competency at the **technician level** through knowledge checks and applied assessments. The requisites do not extend beyond the stated scope (e.g., they do not require graduate-level coursework or advanced supervision skills).

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4. Intended Learning Outcomes (ILOs)

The BTL1 intended learning outcomes include:

- Defining and applying ABA principles (reinforcement, stimulus control, functions of behavior).
- Accurately collecting and recording behavioral data.
- Preparing environments and building rapport with clients.
- Demonstrating knowledge of ethics and cultural sensitivity.

Consistency: Certificate requisites require learners to **pass summative assessments that directly measure these outcomes**. For example:

- To demonstrate reinforcement knowledge, learners complete scenario-based assessments.
- To show competence in data collection, learners conduct mock data collection exercises.
- To meet ethical outcome requirements, learners complete scenario-based questions linked to QABA and BACB ethical codes.

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5. Certificate Requisites (BTL1)

To be awarded the BTL1 Certificate, learners must:

1. **Complete all 40 instructional hours** within the program.
2. **Engage in required learning activities** (video modules, role-plays, applied exercises).
3. **Pass summative assessments** with a minimum score of 72.67.
4. **Acknowledge ethical conduct requirements** (e.g., no use of pre-filled worksheets, adherence to academic honesty policies).

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6. Summary of Consistency

The BTL1 certificate requisites are consistent with:

- **Program Purpose:** They ensure that the certificate is only issued to learners who demonstrate readiness for entry-level technician roles.
- **Target Population:** Requirements are accessible and appropriate for individuals new to ABA.

- **Scope:** Requisites remain within the defined 40-hour, technician-level training boundary.
- **Intended Learning Outcomes:** Assessments and completion requirements directly validate learner achievement of the published outcomes.

✅ **Conclusion:** The BTL1 program's certificate requisites fully meet the requirements of ANAB E2659-24 (6.1.3.2) by ensuring alignment with purpose, target population, scope, and intended learning outcomes, thereby preserving the integrity and value of the certificate.

Technical Requisites. This course is offered completely online, and requires access to a computer with the following requirements.

1. A web browser that runs HTML5
   - Google Chrome, Mozilla Firefox, Internet Explorer, Safari, etc.
2. The following are required for browser compatibility
   - Cookies Allowed
   - JavaScript Enabled
   - .JS Files Allowed (JavaScript Files)
   - Frames Enabled
3. The following are recommended for browser compatibility
   - Pop-up Blocker Disabled
   - Referrers Allowed
4. Internet connection with download and upload speed of 5 Mbps
   - This is the recommended speed by the LMS. It can run on slower connections, but people might run into saving issues

Any questions about technical compatibility can be sent to info@optimus.education.

Alignment of BTL1 Delivery with ANAB E2659-24 (6.1.5.2)

Standard 6.1.5.2: ***"Delivered in ways appropriate for the purpose and scope of the certificate program and the accomplishment of the intended learning outcomes."***

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1. Delivery Format Consistent with Purpose

The BTL1 Certificate Program is delivered entirely online through the Tovuti Learning Management System (LMS). This delivery method is appropriate to the program purpose:

- To prepare entry-level behavior technicians with foundational ABA competencies in a flexible and accessible format.

- To provide structured, sequenced instruction that can be accessed by learners worldwide, expanding the reach of technician-level training.
- To support self-paced study with instructor oversight, ensuring learners can balance training with employment preparation.

By leveraging a secure, asynchronous online platform, BTL1 is delivered in a way that aligns with the purpose of increasing accessibility, while maintaining academic rigor and quality assurance.

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2. Delivery Format Consistent with Scope

The program scope is a 40-hour, entry-level curriculum covering technician-level ABA tasks (reinforcement, data collection, rapport-building, ethics, cultural awareness). Online delivery through Tovuti supports this scope by:

- Providing multimedia lessons (videos, narrated slides, demonstrations) for core concepts.
- Offering applied practice activities (data collection simulations, role-play scenarios, interactive quizzes).
- Ensuring structured sequencing that matches the 40-hour design without exceeding technician-level boundaries.
- Including secure assessments that confirm learner competency before issuing a certificate.

This ensures that the program does not drift into advanced, analyst-level topics beyond the intended scope.

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3. Delivery Format Consistent with Intended Learning Outcomes

The intended learning outcomes (ILOs) require learners to:

- Define and apply ABA concepts.
- Collect and record behavioral data accurately.
- Demonstrate rapport-building and cultural awareness.
- Apply ethical guidelines in practice scenarios.

The delivery method directly supports accomplishment of these outcomes through:

- Instructional Videos – demonstrate correct implementation of reinforcement, prompting, and data collection.

- Interactive Learning Activities – such as practice data entry, scenario-based decision-making, and role-play tasks to apply ABA principles.
- Discussion Forums and Reflections – to deepen cultural and ethical understanding.
- Summative Assessments – including exams and applied performance tasks, directly mapped to learning outcomes.

This alignment ensures that delivery is not just passive content exposure but actively builds the competencies required of certificate holders.

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4. Quality Controls and Appropriateness of Delivery

To maintain appropriateness of delivery:

- Instructors and SMEs review all course content annually to ensure accuracy and currency.
- Learner engagement is monitored through LMS analytics to confirm completion of all modules and activities.
- Accessibility features (closed captions, text transcripts, mobile access) ensure delivery meets diverse learner needs.
- Feedback loops (surveys, advisory council input) confirm delivery remains consistent with learner expectations and workforce requirements.

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5. Summary of Consistency

- Purpose: Online delivery provides accessible, flexible training for new technicians.
- Scope: Delivery matches the 40-hour, entry-level program boundaries.
- Learning Outcomes: Delivery methods are directly mapped to outcome achievement through aligned activities and assessments.

✅ **Conclusion: The BTL1 program meets ANAB E2659-24, Clause 6.1.5.2 by ensuring that program delivery through the Tovuti LMS is fully appropriate for its purpose, scope, and intended learning outcomes, while incorporating multimedia, applied practice, and secure assessments that confirm learner competency.**

PROGRESSION THROUGH PROGRAM

In Level One, the process to review and approve the certificate requisites is the same: Learners are asked to verify that they meet the eligibility requirements before they are able to enroll in the course. Once enrolled, the learner is asked to provide a reference for a recommendation, and a reference to verify his/her fieldwork experience. Once those are provided, the learner opens the course and progresses through each coursework lesson and must pass all online probe quizzes in each lesson at 90% or higher pass rate in order to progress in the course. Then, the "instructor exercises" unlock, and students go through the asynchronous process of answering the questions, getting a pass/fail, and revising answers they did not pass. The course instructor works closely with each learner in grading the instructor exercises. If the learner passes the exercise, the instructor immediately passes the student on that exercise. If the learner does not answer the exercise successfully, the instructor provides feedback to the learner and asks him or her to consider the feedback and re-submit their answers. This process repeats until the learner answers the instructor exercise to the satisfaction of the instructor. Once the learner passes the instructor exercises, Once all coursework lessons are completed, as well as the instructor exercises, the final exam unlocks. The learner must then pass the final exam at the current cut score rate (to be updated as deemed necessary). After all elements of the course are completed (supervision/fieldwork, coursework lessons, instructor exercises, and final exam) the course survey automatically unlocks in which the learner is asked to complete a short survey regarding the course. ***After the survey is completed and all course requirements are completed, the Certificate of Completion is either manually issued to the learner or automatically unlocked (depending upon the capability of the learning management software).*** At this point, the learner receives the certificate electronically. It is up to the learner to print on to paper or present in some other medium if he/she so chooses.

The certificate program is designed carefully so students can achieve identified learning outcomes. The requisites are important parts of the curriculum design. These requirements are not arbitrary, but provide a path through the curriculum, allowing students to master competencies that are needed in the Behavior Technician Level One. The role of the Behavior Technician is providing treatment and support services to those individuals diagnosed with autism or related disorders. Most regulatory requirements state the individual employed in these roles must be 18 years or older and have a minimum of a high school diploma or equivalent. The time period allowed for completion of the programs aligned with undergraduate and graduate programs offering 45-hour programs. In addition, the certificate requires that learners learn specified outcomes within specific competency areas developed through a comprehensive needs analysis study.

<u>Certificate Term of Validity.</u>

The certificate holder's certificate will be valid for three years. Term of validity is based upon two things: (1) to be best practice in order to stay up to date with the newest evidence-based emerging treatments for individuals diagnosed with Autism Spectrum Disorder and (2) changing federal and state regulations and guidelines impacting service delivery for these individuals.

A certificate holder can revalidate his or her certificate at the end of the three-year period by taking the most current refresher training for the respective training program offered by Optimus Education. The refresher course will be based upon updating content to meet new competencies and regulations that have been identified in the behavior analysis and Autism fields by the oversight and program evaluation process.

<u>Inferences about Certificate Holders.</u> COMPLETION OF THE BTL1 CERTIFICATE PROGRAM DOES NOT MEAN THAT A PERSON IS CERTIFIED, LICENSED, ACCREDITED, OR REGISTERED TO WORK INDEPENDENTLY AS A BEHAVIOR TECHNICIAN. Individuals who have completed the BTL1 program must work under a qualified supervisor. Completion of this course signifies that the certificate holder has met the intended learning outcomes. The course can be used as the training coursework portion for BCAT, RBT, and ABAT certifications, but the full certification process must be followed in order to

qualify for the certification. In some cases, the certificate holder may be able to work for billable hours under some insurance providers. However, all work must be under a qualified supervisor and at the approval of their employer.

PROGRAM EVALUATION

Optimus Education is to conduct a comprehensive evaluation of the certificate program on a yearly basis, or as deemed necessary by the organization. The program evaluation measures the quality, effectiveness, and value of the certificate program against stated program performance objectives. The program evaluation measures the quality and effectiveness of learner assessment methods/instruments.

Individuals conducting learner assessments or learner assessment instrument performance or both, as applicable, shall be monitored for patterns and trends. The Director of ABA Programs reviews learner surveys quarterly for patterns. In addition, the Help Desk staff is asked to compile all complaints regarding the course regularly to further investigate for trends or patterns.

Regular Evaluation Process and Program Evaluation Methodology. Once a year, between September and December, the program evaluation process will occur. This includes conducting the internal audit, official program evaluation, and management review. In order to create the program evaluation report, the methodology consists of gathering the information for the below items and compiling it into one report.

Once the data has been collected, and the reports dispersed, the BTEC Council meets to review the Program Evaluation.

Management meets separately to conduct their management review.

At this meeting, the programs will be reviewed against stated performance objectives using all resources available, including, but not limited to the following documents.

- Internal Audit
- Program Evaluation
- Stakeholder feedback acquired throughout the past year
- Learner feedback through direct contacts and course evaluations
- System interface issues through help desk requests and feedback
- Instructor feedback
- Subject matter experts' feedback regarding the landscape of the human services field
- Administrative issues via the Director of Programs and COO
- Content matters via syllabi review
- Complaints
- Appeals
- Corrective and Preventive Action

Any issues will be reviewed one by one and a determination what, if any, action should be taken to revise the programs.

Evaluation Based upon Learner Feedback. Yearly, the Director of Programs contacts all individuals who received a program certificate in the prior year for feedback regarding their opinions of the value of the program after they received the certificate. This information is aggregated through qualitative and quantitative assessment methods and reviewed at the yearly review.

Monitoring of Assessment Scoring. The formative assessments (probe quiz knowledge checks and instructor exercises) and summative assessment will be subjected to a yearly review of question and form performance.

The instructor exercises have scoring keys that are rather specific in nature. However, once a quarter each instructor shares samples of their grading with other instructors or stakeholders to compare against the scoring key to ensure that

no responses remain consistent, impartial, and fair. In addition, the program evaluation team will review instructor answers and make recommendations about scoring based upon the results of the review. Also, the instructor(s) and supervisor of the course will review student answers for issues that signal problems with content comprehension and review and edit the course content and exercise wording as they see fit.

Assessment Performance - Test Item Analysis and Test Statistics

The item analysis is an important process for ensuring our certificate programs are reliable and validated. Since an item analysis examines candidate responses to individual test items (questions) as a way to assess the quality of those items and of the test as a whole, our psychometrician will be completing the assessment performance if new items have been developed or if new forms of the BTL1 Final Exams have been made. New forms and items will be driven by an updated job analysis, new regulations or requirements, and new evidence-based treatments all of which would require content and competencies to be revised.

Item analysis is especially valuable and important in improving items which will be used again in later forms of the tests, but Optimus Education also uses it to eliminate vague or misleading items in a single test administration.

In addition, item analysis is valuable for identifying specific areas of the course content which need greater emphasis because of the importance or clarity of the competency that the Behavior Technician must have in the job of providing support and treatment to individuals diagnosed with Autism.

Assessment performance will be completed on an annual basis if the number of completers is 50 or more for that year or if significant changes have been made to the test items.

If there are no changes to the test items or the number of completers per year is less than 50 then the assessment performance on the BT Level One will be done to coincide with new test blueprints based on updated job analysis of the Behavior Technician.

Alignment with course content. The summative assessment design document will be reviewed yearly to ensure that assessment questions continue to align with course content, purpose, and learning objectives.

Advisory Group (BTEC Council Review). At the yearly review meeting, intended learning outcomes are reviewed along with the course quizzes and instructor exercises and syllabi to ensure that the stated learning objectives are being measured in an appropriate and accurate manner. Should any discrepancies appear, the oversight committee reviews the discrepancies and makes a decision on the type of action that needs to occur – either a short-term edit or a long-term change in content.

Stakeholder Feedback. Stakeholders are welcome to review the Optimus Education programs at any time. If a stakeholder asks to review a program, he/she is given immediate access to that program. Optimus Education solicits feedback from them yearly, if not quarterly, regarding their views on the certificate programs' design, content, delivery, and learning outcomes. Stakeholders are also told at the outset that their views are always welcome to please provide unsolicited feedback at any time.

Mechanisms to Monitor for Changes in Program. Optimus Education is constantly monitoring the human services field for changes or trends that may affect paraprofessional and direct service professionals' needs by being on mailing lists, reviewing websites, and professional social media groups for new trends and changes in the field . In addition, at the BTEC Council meetings, human services professionals and subject matter experts are asked to weigh in on any changes occurring in the fields of autism, applied behavior analysis, and human services overall. If any changes or trends occur that are not reflected in the Behavior Technician Certificate Program then the BTEC Council discusses the necessity to change the program, and BTL1 management implements such changes if deemed necessary.

Alignment. Design documents will be reviewed and updated yearly aligning the course probe quizzes, instructor exercises, and summative assessment to current learning objectives. When necessary, a job task analysis will be conducted in order to ensure that current content remains in alignment with the needs of current Behavior Technicians. Staying current with ABA and autism professional groups, mailing lists, and social media groups will help to ensure that course content remains current and in alignment with changes in the human services field. Optimus Education will use student and stakeholder feedback to ensure that the delivery method of the course and assessment remains consistent with the needs of both the behavior technician and their employers.

Needs Analysis. In order to continue to monitor how the BTL1 course meets the needs of Behavior Technicians and the field of ABA and autism in general, a needs analysis will be conducted every five years, or sooner if changes in the field determine it is necessary.

Mechanisms Used to Revise the Program in a Timely Manner. There are two types of changes utilized in Optimus Education programs: short-term edits and long-term changes. Short-term edits usually consist of grammar or minor content issues. The mechanisms in finding these are usually through learner feedback (either through direct communication to the instructor or director or indirectly through course satisfaction surveys). In these cases, the Director of Programs takes the suggested edit and asks either the COO or course instructor to conduct a final review. If the edit is approved, the edit is made by BTL1 management as soon as possible.

Long-term changes mean edits needed because of changes in resource needs and effectiveness, curriculum shifts and new standards in the human services field, change in needs of the community and target candidate population, a change in best practices in the field, and survey results from certificate holders. These changes will be measured through job analyses conducted every two years. As such, these need research and require a longer turnaround time. Once the job analysis is completed, any new suggested topic areas are assigned to either the course instructor or another subject matter expert to source the new content with a clear deadline attached. Typically, Optimus Education tries to implement these changes within one month. Once the content is sourced and compiled, the content goes through several edits by the subject matter expert and course instructor. When the final edit is ready, it is sent to course development to develop and upload the course documents. The finished course document is sent for a final quiz check and formatting check to the BTL1 management who review the document online. Final recommendations for changes or repairs are made. A final review is conducted by the COO. If the content is accepted, the new content changes are made live in the course. This process can take between one to three months.

The following chart delineates the continuous improvement model followed by Optimus Education to ensure that the course remains aligned with program purpose, scope, learning objectives, course and assessment content, and course and assessment delivery.

BEHAVIOR TECH LEVEL ONE ONGOING MONITORING AND EVALUATION PROCESS				
Inputs→	**Processes→**	**Outcome Measures →**	**Processes Closing Loop→**	**Decisions** ↓

Candidate Population
• 18 years or older
• HIgh school diploma or equivalent
 	
External Environment Influences on Decision Making
• Accreditation Bodies
• Legislation
• Political, Legal, Economic, and Cultural Shifts/ Changes
• Immediate Workforce Needs
	Candidate Preparation
	How When and What we Do
	
	Benchmark 1: Candidate Admission Criteria
	Confirmation of Age
	Declaration of high school diploma or equivalent
	Agreement to user info sharing, if paid by employer
	Agreement to Terms and Conditions
	Agreement to being on Public Registry
	Agreement to following Code of Conduct
	
	Benchmark 2: Supervision and Fieldwork
	• Verification of supervision by supervisor
	• Verification by supervisor of 15 hours of fieldwork
	
	Benchmark 3: Candidate Performance in Coursework
	• Competency knowledge checks at each lesson level
	• Work Product Example through Instructor-Led Exercises
	• Passing the final assessment at cut score
	
	Benchmark 4: Completion of Course
	• Successful completion of coursework
	• Feedback through course survey completion
	• Reception of Certificate of Completion marking end of course
		Candidate, Program and Unit Success
		How we Measure our Success
		
		Key Assessment Measures
		• Knowledge checks
		  ◦ Probe quiz at end of each lesson
		  ◦ Instructor-Led Exercises
		• Final Assessment at the end of the Program
		
		Other Measures
		Course Evals
		Yearly syllabus review
		Informal stakeholder feedback
		Coursehelp desk feedback
		Program Director feedback
		BTEC Council feedback
			Use of Candidate, Program, and Unit Data
			How we Reflect, Analyze, and Study
			
			Weekly Optimus Education Tuesday check-in
			• COO
			• Director of Programs
			• HelpDesk (when needed)
			
			Unit Level
			• Provider Liaisons
			• University Liaisons (if applicable)
			• Professional CE Review (If applicable)
			• Regulatory or Statutory requirements (if applicable)
			
			Yearly Review
			• Internal Audit
			• Program Evaluation
			• Management Review
			• BTEC Council input
			• Design Documents
			  ◦ Alignment with course purpose, scope, and intended learning outcomes:
			    ▪ Instructor Exercises
			    ▪ Knowledge Checks
			    ▪ Summative Assessment
				How We Decide to Make Change
				• Resource Needs
				• Resource Effectiveness
				• Curriculum Shifts and New Standards
				• Best Practices in Evidence-Based Content
				• Needs Assessment from Community and Target Candidate Population
				• Survey Results
				• Course content or assessments no longer aligned with learning objectives or course purpose or scope