

Executive Summary of CBPA-AI™ Practice Analysis



Prepared by:



Credentialing & Career Services

Eric T. Vincent, MS, ICE-CCP

Sandy Greenberg, PhD

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INTRODUCTION

Recognizing the growing need for specialized, high-quality intervention for individuals diagnosed with autism spectrum disorder (ASD), the Autism Partnership Foundation (APF) explored the creation of credentialing programs that were aimed to promote a progressive approach to Applied Behavior Analysis (ABA) as a treatment method for ASD. The APF established the Progressive Behavior Analyst Autism Council® (PBAAC or the Council) which is responsible for governance and oversight of APF's suite of certification programs, policies, and procedures. The Council is an independent and autonomous body that is responsible for the certification program. The Council sets policy for essential certification activities and manages certification and recertification decisions, including, but not limited to governance, eligibility criteria, disciplinary and appeals actions, and the development, administration, and scoring of assessments.

APF and the Council acknowledges the importance of aligning all credentialing activities with industry standards and best practices. To guide this development process, APF collaborated with the ACT Credentialing & Career Services team. At various points in time, the team comprises recognized thought leaders and experts in credentialing advisory services, including Dr. Sandy Greenberg, Jacqueline Carpenito, Carla Caro, and Eric Vincent.

Credentialing initiatives commenced with strategic meetings, held both in-person and virtually, between APF and ACT. These sessions were designed to articulate the mission and vision of the envisioned multi-tiered certification program. A distinguished Advisory Committee, consisting of 11 members recognized as experts in progressive applied behavior analysis on both national and international levels, was assembled. Comprising thought leaders, researchers, consultants, academics, and clinical program directors, Advisory Committee members offered conceptual guidance and input throughout the development and validation process of the certification programs. This committee played a pivotal role in shaping the mission and vision statements and identifying potential certification levels.

The Mission and Vision statements below articulate APF's aspirations for certification in a clear and concise manner. They highlight the focus of APF's certification-related development and implementation initiatives. Additionally, these statements provide a basis for developing non-certification-related aspects of APF's strategic plan that complement the certification initiatives.

Mission Statement: Given the growing need to provide specialized, high-quality interventions for individuals 14 years of age or younger diagnosed with ASD, the Autism Partnership Foundation provides credentialing programs that promote a progressive approach to ABA as a treatment method. Governed by the Progressive Behavior Analysis Council, these programs are built on a rigorous and defensible combination of initial eligibility requirements, adherence to a Code of Ethics, assessments, and recertification requirements to recognize individuals who meet high standards of practice.

Vision Statement: To improve the quality of life for individuals diagnosed with ASD through the credentialing of professionals in a progressive approach to ABA.

The APF Advisory Committee initially partnered with ACT to establish the CPBA-AP® credential, targeting professionals operating at an advanced strategic level involved in educating and training other professionals. In December 2021, the committee continued fulfilling its mission by launching a comprehensive study in collaboration with ACT, examining the work of professionals overseeing interventionists implementing progressive ABA procedures in clinical settings. The study aimed to identify and validate the domains of responsibility and tasks performed, as well as the associated content areas and knowledge and skills essential for effective practice by these professionals. The objective was to develop the Certified Progressive Behavior Analyst-Autism Interventionist™ (CPBA-AI™) credential.

REPORT PURPOSE

This report summarizes a comprehensive practice analysis study of Autism Interventionists, that is, individuals who work directly with individuals diagnosed with ASD. The study was designed to clarify the domains and tasks performed, as well as the content areas and knowledge and skills essential to practice. Meeting certification program accreditation standards from third-party accreditation entities necessitates a rigorous practice analysis study. Adherence to these standards guides the development of required assessments including the assessment content outline and proportional testing emphasis. Accordingly, the APF study collected data to create a detailed description of current practice, shaping the content outline for CPBA-AI assessments.

Conducting a practice analysis for a new credential involves a systematic approach to understanding and defining the necessary skills, knowledge, and competencies in the target field. This includes developing a draft delineation of the practice, outlining key elements and essential domains. Validation initiatives follow to ensure accuracy and relevance. The iterative process for a new practice incorporates insights from individuals operating at the intended credential level who offer diverse perspectives. This approach contributes to a nuanced understanding of the profession and ensures the credential reflects the evolving field. The practice analysis forms the foundation for shaping the credentialing program's content and structure, and guides assessment development. Approximately 65 subject matter experts contributed to the development and validation efforts, ensuring a thorough and inclusive process.

METHODOLOGY

The practice analysis study reported herein conforms to current testing and measurement requirements for the validation of certification examinations as found in the NCCA Standards for the Accreditation of Certification Programs (2021), the International Standards Organization (ISO) American National Standards Institute (ANSI), National Accreditation Board (ANAB), (ANSI 17024, 2012), as well as the AERA/APA/NCME Standards for Educational and Psychological Testing (2014).

To ensure a range of expertise from the field in the practice analysis activities, the Council and PBAAC staff implemented a nominations process in September 2021. Nominations were provided via a web survey hosted by ACT. Each nomination provided the following demographic and professional background information: name of nominee, contact information, employer name, years of experience training and supervising interventionists, years of experience implementing a progressive approach to ABA, ages of clients served, highest levels of formal education attained, and location of employment. As outlined below, the Advisory Committee reviewed the nominees, and subject-matter experts (SMEs) were chosen to serve on the task force, as independent reviewers, and as focus panelists. The appointment of the SMEs was designed to ensure that each cohort comprised a representative set of identified professional characteristics. Invitations were sent to selected SMEs with participation details.

1. In December 2021, PBAAC and ACT organized a meeting with members of the Advisory Committee to discuss the execution of a practice analysis supporting the development of a new credentialing program. This program aimed to credential individuals who clinically supervise and train interventionists implementing progressive ABA procedures. The resulting credential was to be named Certified Progressive Behavior Analyst—Autism Interventionist™ (CPBA-AI™). The work products previously completed by PBAAC and ACT to define the proposed target audience, as well as preliminary experience and education requirements, were carefully reviewed. The role of the Advisory Committee was to provide conceptual guidance throughout the study. During this meeting, the Advisory Committee structured the study and methodology to include a series of face-to-face and virtual meetings involving multiple groups

of SMEs. The chart below provides an outline of the dates, SME groups, and study activities for all cohort groups, including the Advisory Committee.

Date	SME Group	Activity
December 2021	Advisory Committee (n=13)	Approve of method, structure, and select additional panel members Review initial compilation of: <ul style="list-style-type: none"> • Domains and tasks within the domains • Content areas and knowledge and skills within content areas
January and February 2022	Task Force (n=11)	Edit initial draft of: <ul style="list-style-type: none"> • Domains and tasks within the domains • Content areas and knowledge and skills within content areas
February 2022	Independent Reviewers (n=7)	Independent review and recommended edits for: <ul style="list-style-type: none"> • Domains and tasks within the domains • Content areas and knowledge and skills within content areas
February and March 2022	Task Force	Reconciliation of consolidated input from independent reviewers to refine: <ul style="list-style-type: none"> • Domains and tasks within the domains • Content areas and knowledge and skills within content areas
March and April 2022	Focus Panels (2 panels; n=9)	Review domains, tasks, content areas, and knowledge and skills Rate task domains for: <ul style="list-style-type: none"> • Time spent • Importance to critical outcomes Allocation of task domains <ul style="list-style-type: none"> • Rank of tasks within domains
April 2022	Task Force	Reconciliation of input from focus panels to refine: <ul style="list-style-type: none"> • Domains and tasks within the domains • Content areas and knowledge and skills within content areas Link tasks to knowledge and skills
April 2022	Advisory Committee	Review of content, ratings, results, and linkage data Develop and recommend job content outline (JTA) Develop and recommend test content outline (TCO)

		review and recommend eligibility requirements
April 2022	PBAAC (Council)	Review recommendations and approve the finalized JTA content, linkage results, and TCO Review, modify, and approve eligibility requirements

ACT compiled an initial delineation of domains with tasks, as well as knowledge and skill statements organized into content areas, drawing from available industry materials, practice descriptions, education coursework, and related credentials. The Advisory Committee reviewed and refined these documents to create revised drafts. These documents formed the foundation for the subsequent iterative review and revision of the practice analysis delineation. Over the following months, ACT facilitated the reviews and revisions, providing feedback on potential adjustments.

2. On February 1, 2022, ACT led a virtual meeting with the 11 members of the Task Force to orient them to their responsibilities, as well as the method and workflow of the practice analysis study. Their initial charge was to review and refine the tasks and the knowledge and skills statements. Throughout January, a series of virtual meetings with the task force were conducted to edit the draft documents. Domains, tasks, content areas, knowledge, and skills were revised, deleted, added, and organized to accurately reflect current practice.
3. The Advisory Committee enlisted the expertise of 7 independent reviewers to enrich the diversity of input from SMEs. These reviewers, representing such various perspectives as researchers, academics, and clinical service providers contributed to ensuring the accurate delineation of current practices for Autism Interventionists. In February 2021, ACT sent an email to each independent reviewer containing an overview of the practice analysis study, an orientation to the proposed target audience for the credential and the associated education and experience requirements, comprehensive instructions, and the procedure for completing their review. Furthermore, specific instructions on revising the documents, previously refined by the Task Force, and encompassing domains, tasks, content areas, knowledge, and skills, were provided. The reviewers then submitted their independent edits and feedback to ACT for compilation.
4. In February and March 2022, the Task Force reconvened through two-hour virtual meetings to assess the compilation of input from the independent reviewers. ACT led the facilitation of these meetings and documented the modifications made to the delineation. Task Force members considered the input and feedback, aiming to refine and enhance the content of the delineation documents. They worked collaboratively to incorporate additional perspectives on the completeness, accuracy, and clarity of individual tasks, as well as knowledge and skill statements. Throughout these sessions, efforts were made to improve the organization of tasks within domains and the arrangement of knowledge and skills within content areas.
5. To enhance the integration of insights and understanding from professionals operating at the intended credential level and to further refine the delineation, the Advisory Committee enlisted 9 SMEs to participate as focus panelists, divided into two separate virtual meetings. These focus panel meetings, conducted in April 2022, were facilitated by ACT, and included individuals who had not been previously

exposed to the delineation. Before each meeting, ACT sent out the delineation documents via email, along with an explanation of their content and organization into two distinct but interrelated groupings. Focus panelists were instructed to review the documents beforehand. At the outset of each meeting, panelists were provided with an orientation to the overall objectives of the certification program and the methodology of the study. This was followed by an explanation of their specific role in prioritizing the domains and tasks. Following a review of the delineation of domains and tasks, the panelists rated each domain on two scales:

- **Relative Time Spent:** The amount of time spent performing the tasks in the domain relative to that spent on the other domains.

Rating Scale

- 0 Not performed
- 1 Very small amount
- 2 Small amount
- 3 Moderate amount
- 5 Large amount
- 5 Very large amount

- **Importance to Critical Outcomes:** The significance of the domain to attaining critical job outcomes.

Rating Scale

- 0 Not performed
- 1 Not important
- 2 Somewhat important
- 3 Important
- 4 Very important
- 5 Extremely important

Panelists independently rated each domain on both scales and provided their ratings to the group for analysis and review. The criticality of the domains was calculated by multiplying the average ratings from each panelist on both scales. Subsequently, panelists were instructed to meticulously review the domains along with their tasks, indicating the proportion of weight that each domain represented in the overall practice. ACT recorded these domain weights in a spreadsheet to compute the relative weights for each domain across all panelists. Finally, panelists were asked to rank the tasks within each domain from most critical to least critical. ACT recorded these rankings to calculate the overall average rankings.

Throughout the meetings, panelists were prompted to share their thoughts on the delineation, eligibility requirements, the importance and utility of each domain, and whether the content was unique to progressive ABA. Focus panelists offered suggestions for enhancing the delineation with their input on the value of each domain. ACT compiled data from both meetings to calculate ratings, rankings, and domain weights across all focus panel participants. Please refer to Appendix 1 for quantitative results from the focus panelists.

- 6 On April 25, 2022, ACT organized an in-person meeting for the Task Force. The session commenced with an introduction to the credential development process, a recap of completed study steps, and a scrutiny of participants, methods, and the outcomes of the Focus Panel meetings. Subsequently, the Task Force evaluated the existing practice delineation for Autism Interventionists, ensuring clarity and accurate

representation. They further revised the flow and uniformity of the presentation, as well as the task, knowledge, and skill statements. These adjustments were made with the specific aim of enhancing their utility in the development of the intended credential.

During the review, members focused on reconciling feedback from all internal and external SMEs, ensuring that the delineation aligned with the Mission and Vision of the proposed credentialing program. They evaluated each statement based on two criteria:

- Was it *critical* to success?
- Was it within the scope of practice of an Autism Interventionist?

Finally, the members identified the key tasks in the delineation that should be considered for the development of a performance-based assessment.

7 The Advisory Committee met for a 1-day meeting on April 26, 2022, facilitated by ACT to complete the following activities:

- Review the AI practice analysis method and results
- Recommend AI practice analysis results and weighted content outline to the Council for review and approval. This included the domains and task statements along with the knowledge and skill statements organized into content areas
- Prepare recommended test content outline for the CPBA-AI assessments based upon the results of the practice analysis study and the weighted content outline
- Identify linkages between AI tasks and specific knowledge and skills
- Review and recommend refined AI eligibility requirements

During the meeting, each committee member was tasked with rating the importance of each domain's representation in an assessment blueprint. Two rounds of ratings were collected—Round 1 followed by a discussion, and Round 2 for rerating—to validate the final assessment blueprint. In assigning ratings, the committee considered the ratings, including the criticality of each domain and its unique contribution to the implementation of progressive ABA. The outcome of this process yielded a weighted content outline of the domains.

Practice analysis results should be adjusted to ensure that the content of the test accurately reflects the knowledge, skills, and abilities required for the role being assessed. Addressing concerns related to achieving balanced coverage of content areas, avoiding overemphasis or neglect of specific topics, and creating a fair and comprehensive assessment aligned with current practices and profession requirements, the committee members arrived at the final test content outline to recommend to the Council. Rationales were provided regarding adjustments to the weights in the test content outline. The results of the ratings and discussions are summarized and are the basis for the blueprint of the multiple-choice examination. Please see Appendix 2 for the quantitative results and the rationales provided by the advisory committee.

PRACTICE ANALYSIS DELINEATION AND FINAL ASSESSMENT BLUEPRINT REVIEW AND APPROVAL

On April 27, 2022, the Council gathered to finalize the practice delineation, consisting of five domains, 26 tasks, and ten associated content areas with 55 knowledge and skills. The objectives of the meetings were to:

- Review all internal and external SME feedback on the delineation.
- Finalize the content of the delineation for use in a comprehensive assessment blueprint.
- Examine the linkages between the knowledge and skills to tasks in the delineation.
- Identify potential assessment methods for each element in the delineation.
- Develop a comprehensive assessment blueprint to support a 2-part assessment program, including a multiple-choice examination and a performance-based examination.

Committee members conducted a comprehensive examination of each of the five domains, and carefully documented the associated knowledge and skills. The table below presents the finalized list of domains along with the corresponding numbers of associated knowledge and skills.

Domains	# of KSs	# of Tasks
Domain 1: Implements Plans	65	4
Domain 2: Data	53	4
Domain 3: Feedback with Supervisor	34	6
Domain 4: Communication	32	4
Domain 5: Professionalism	34	8

The Council scrutinized the content outline, analyzed supporting data, and considered recommendations from the Advisory Committee. Council members evaluated the testable material in each domain. They addressed concerns regarding achieving balanced coverage of content areas, avoiding overemphasis or neglect of specific topics, and ensuring fair and comprehensive assessments aligned with current practices and professional requirements. Following the ratings and discussions, the Council finalized and approved the test content outline, which serves as the basis for the blueprint of the multiple-choice examination. See Appendix 3 for a comprehensive copy of the delineation.

Test Content Outline Domains	Exam Weights
Domain 1: Implements Plans	55%
Domain 2: Data	10%
Domain 3: Feedback with Supervisor	15%
Domain 4: Communication	10%
Domain 5: Professionalism	10%

Separately, the focus of the Competency Demonstration assessment, including the rubric and associated scoring categories and weightings, were derived from the mission and vision of the credentialing program—to recognize individuals who have the experience, knowledge, and skills necessary to implement behavioral intervention with individuals diagnosed with autism spectrum disorder (ASD). The candidates’ skills evaluated in the performance assessment include:

- general teaching
- instructions
- prompting
- consequences
- clinical judgment

APPENDIX 1. FOCUS PANEL RATINGS, RANKINGS, AND DOMAIN WEIGHTS

Domains	SME1.1	SME1.2	SME1.3	SME1.4	SME1.5	SME2.1	SME2.2	SME2.3	SME2.4	MEAN
I. Implements Plans TIME	5	5	5	5	5	5	5	5	5	5.0
I. Implements Plans IMP	5	5	5	5	5	5	5	5	5	5.0
II. Data TIME	3	3	2	3	2	3	2	3	2	2.6
II. Data IMP	4	4	5	5	3	4	3	5	5	4.2
III. Feedback with Supervisor TIME	2	3	4	2	2	3	2	2	2	2.4
III. Feedback with Supervisor IMP	4	5	4	4	5	5	4	4	4	4.3
IV. Communication TIME	5	5	5	5	5	3	4	3	5	4.4
IV. Communication IMP	5	5	5	5	5	4	5	5	5	4.9
V. Professionalism TIME	5	5	5	5	5	2	3	5	5	4.4
V. Professionalism IMP	5	5	5	5	5	5	3	5	4	4.7

Domains	SME2.1	SME2.2	SME2.3	SME2.4	MEAN	RANK
I. Implements Plans	30	50	30	50	40.0	1
II. Data	10	15	25	5	13.8	4
III. Feedback with Supervisor	5	25	15	15	15.0	3
IV. Communication	30	5	20	20	18.8	2
V. Professionalism	25	5	10	10	12.5	5
					100	

Domains	Time Spent	Importance	Crit Total	Rel Weight	Rank
I. Implements Plans	5.0	5.0	25.0	28.1	1
II. Data	2.6	4.2	10.8	12.1	4
III. Feedback with Supervisor	2.4	4.3	10.6	11.9	4
IV. Communication	4.4	4.9	21.7	24.4	2
V. Professionalism	4.4	4.7	20.7	23.3	3
TOTAL			88.9	100	

APPENDIX 2. ADVISORY COMMITTEE RANKINGS, DOMAIN WEIGHTS, AND RATIONALE

Advisory Committee Rankings and Domain Weights

Domains	Time Spent	Importance	Crit Total	Relative Weight	Rounded	Rank	Practice Content Outline Weights	Test Content Outline Weights
I. Implements Plans	5.0	5.0	25.0	28.1	28	1	55%	55%
II. Data	2.6	4.2	10.8	12.1	12	4	10%	10%
III. Feedback with Supervisor	2.4	4.3	10.6	11.9	12	4	15%	15%
IV. Communication	4.4	4.9	21.7	24.4	25	2	10%	10%
V. Professionalism	4.4	4.7	20.7	23.3	23	3	10%	10%
TOTAL			88.9	100%	100%		100%	100%

Rationale for Final Test Content Outline Weights

Domains	Test Content Outline Weight Adjustment	Rationale
I. Implements Plans	Increase 20%	This is the majority of the job. Interventionists are responsible for goals and objectives and work within the framework of the APA. The weight value was increased to reflect the dominance of this domain over the other domains to the practice.
II. Data	Decrease 2%	Minor reduction in weight.
III. Feedback with Supervisor	Increase 3%	Client progress is contingent upon interaction with the supervisor. Increased due to the importance of the interaction and engagement with supervisor.
IV. Communication	Decrease 15%	Overlap and interaction between both the Communication and Professionalism domains. The overlapping weight value was removed for reassignment.
V. Professionalism	Decrease 13%	Overlap with Communication and other domains. The overlapping weight value was removed for reassignment.

APPENDIX 3. CPBA-AI™ TEST CONTENT OUTLINE

The five domains and the percentage of questions allocated to each area that are included in the examination are as follows:

Domains and Tasks

01. Implements behavioral and instructional plans (55% of assessment)
01.01 Prepares for a session (e.g., gathers materials, creates session plan based on objectives, arranges learning space) by taking relevant client information (e.g., skill set, learning history, parent concerns) into consideration.
01.02 Implements a progressive approach to ABA.
01.03 Adjusts implementation of ABA-based methods and procedures based upon in-the-moment analysis of relevant contextual variables (e.g., instructional format, current client response progression, client health, assent).
01.04 Provides support in various settings (e.g., school, virtual, community).
02. Collects and interprets data on treatment and behavior intervention plans (10% of assessment)
02.01 Collects data across a variety of behavioral and instructional targets.
02.02 Creates graphical representations of data to help inform treatment decisions.
02.03 Interprets data and graphs within and across sessions to help inform treatment.
02.04 Summarizes objective notes about the events of a session to meet organizational and funder requirements and communicate across the intervention team.
03. Engages in feedback exchange with the supervisor (15% of assessment)
03.01 Adjusts or continues implementation of ABA-based methods and procedures based upon feedback exchanges with supervisor(s).
03.02 Provides rationale(s) to supervisor(s) for strategies used throughout a session.
03.03 Requests additional support from supervisor(s) when needed.
03.04 Applies feedback as general guidelines rather than prescriptive rules.
03.05 Follows up with supervisor(s) and communicates any questions and progress related to previous feedback.
03.06 Demonstrates professionalism during feedback exchanges with supervisor(s).
04. Interacts effectively and compassionately (10% of assessment)
04.01 Interacts effectively and compassionately with clients.
04.02 Interacts effectively and compassionately with caregivers/families.
04.03 Interacts effectively and compassionately with intervention team.
04.04 Interacts effectively and compassionately with other allied professionals.
05. Demonstrates professionalism (10% of assessment)
05.01 Maintains PBAAC certification(s).
05.02 Participates in the advancement of the profession and practice through involvement in committee(s), community, and other professional opportunities.
05.03 Operates within the scope of practice of a CPBA-AI.
05.04 Operates within one's own area(s) of competence.
05.05 Acknowledges, validates, and collaboratively considers the expertise of others.

05.06 Engages in ethical and responsible behavior consistent with the CPBA-AI Code of Ethics.
05.07 Demonstrates professionalism across contexts.
05.08 Engages in socially valid and culturally responsive behaviors (e.g., statements, practices) when interacting across contexts.

Knowledge, Skills, and Abilities

01. Content Area 1: Principles, concepts, and history of behavior analysis	
01.01. Basic Concepts	
01.01.01	Dimensions of ABA.
01.01.02	Basic elements of behavioral contingencies (e.g., antecedent, behavior, consequence).
01.01.03	Basic principles of behavior analysis (e.g., reinforcement, extinction, stimulus control).
01.01.04	Major contributions of the founders of ABA (e.g., Baer, Sulzer-Azaroff, Wolf).
02. Content Area 2: Foundational knowledge of autism and interventions	
02.01. Basic concepts	
02.01.01	Core features of autism spectrum disorder.
02.01.02	Behavioral differences between sexes, genders, and age across the autism spectrum.
02.02. Etiology and Seminal Studies in Autism	
02.02.01	Foundational and pertinent literature as it relates to autism as a diagnosis.
02.02.02	Foundational and pertinent literature as it relates to autism and ABA-based interventions.
02.02.03	Results, claims, limitations, ethical concerns, and harm of false claims (e.g., vaccines, psychogenic theories, epidural) as they relate to autism.
02.03. Intervention Evaluation	
02.03.01	Differences between scientific, pseudoscientific, and antiscientific procedures currently available as intervention alternatives.
02.03.02	Processes to promote the most effective, efficient, and ethical practices for the benefit of the client.
02.03.03	Ethical processes when non-evidence-based procedures are included in an intervention plan.
02.04. Caregivers and Siblings	
02.04.01	Advantages and disadvantages of the major roles family members and caregivers could play within the course of ABA-based intervention.
02.04.02	Common outcomes for caregivers (e.g., financial, family dynamics, understanding and connecting with beneficial resources).
02.04.03	Common outcomes for siblings (e.g., resilience, self-competence, isolation).
02.05. Quality Learning Environments	
02.05.01	Key elements of successfully collaborating across multiple learning environments (e.g., creating a behavioral culture, developing collaborative relationship, being an active listener).
02.05.02	Key components of a quality learning environment (e.g., high rates of reinforcement, meaningful curriculum, ongoing supervision/training).
02.05.03	Key attributes of quality teaching (e.g., systematic, adaptable, collaborative).
03. Content Area 3: Respondent behavior and conditioning	
03.01. Basic Concepts	
03.01.01	Components of respondent conditioning.

03.01.02	Possible operant and respondent variables controlling behavior.
03.01.03	Respondent procedure(s) that should be implemented based upon relevant contextual variables.
03.02. Acquisition & Extinction	
03.02.01	Components of respondent acquisition.
03.02.02	Components of respondent extinction.
03.02.03	Application of respondent acquisition.
03.02.04	Application of respondent extinction.
03.03. Respondent Conditioning Procedures	
03.03.01	Components and steps of respondent conditioning procedures (e.g., graduated exposure, systematic desensitization, flooding).
03.03.02	Application of respondent conditioning procedures (e.g., graduated exposure, systematic desensitization, flooding).
03.03.03	Conditions under which specific respondent conditioning procedures may be more preferred or appropriate.
03.04. Generalization	
03.04.01	Characteristics of respondent generalization.
03.04.02	Application of respondent generalization.
04. Content Area 4: Operant behavior and contingency arrangement	
04.01. Basic Concepts	
04.01.01	Components of operant conditioning.
04.01.02	Variables that contribute to the effectiveness of reinforcement-based procedures (e.g., motivating operations, timing, response effort).
04.01.03	Major considerations in providing putative reinforcement (e.g., age appropriate, consistent, preferred) and why they are important.
04.02. Identifying Reinforcers	
04.02.01	Methods of progressive (e.g., in-the-moment reinforcer analysis) and conventional approaches (e.g., multiple stimulus without replacement, paired stimulus preference assessment) to identifying possible reinforcers.
04.02.02	Critical variables that influence the selection of possible reinforcers.
04.02.03	Components of methods designed to identify possible reinforcers (e.g., observing vocal and non-vocal behavior, providing opportunities to sample a variety of stimuli).
04.02.04	Conditions under which a specific reinforcer identification method may be more preferred or appropriate.
04.03. Conditioning Reinforcement	
04.03.01	Importance of conditioning new, novel, and a variety of reinforcers.
04.03.02	Components of conditioning stimuli to potentially function as reinforcers (e.g., engaging in favorable affect, demonstrating novel ways to interact with the stimuli, incorporating individual preferences).
04.03.03	Application of conditioning procedures (e.g., engaging in favorable affect, demonstrating novel ways to interact with the stimuli, incorporating individual preferences).
04.03.04	Conditions under which a specific conditioning method may be more preferred or appropriate.

04.04. Graduated Reinforcement	
04.04.01	Components of graduated reinforcement procedures (e.g., quality, quantity, intensity).
04.04.02	Application of graduated reinforcement procedures (e.g., quality, quantity, intensity).
04.04.03	Progressive and conventional approaches to graduated reinforcement procedures.
04.04.04	Conditions under which a specific graduated reinforcement procedure may be more preferred or appropriate.
04.05. Schedules of Reinforcement	
04.05.01	Schedules of reinforcement (e.g., fixed, variable, interval).
04.05.02	Application of schedules of reinforcement (e.g., interval, compound, concurrent).
04.05.03	Ways to thin schedules of reinforcement, shift control to naturally available reinforcers, and fade the use of supplemental reinforcement.
04.05.04	Behavioral patterns of different schedules of reinforcement (e.g., ratio, variable, mixed).
04.05.05	Conditions under which a specific schedule of reinforcement may be more preferred or appropriate.
04.06. Punishment	
04.06.01	Important considerations in the use of punishment-based procedures (e.g., immediacy, consistency, intensity).
04.06.02	Range (i.e., low- to high-intensity) of possible punishers based on relevant contextual variables.
04.06.03	Aversive procedures (e.g., corporal punishment versus non-corporal punishment) and the controversy surrounding their use (e.g., push to eliminate punishment in practice).
04.06.04	Punishment-based procedure implementation that is documented, effective, ethical, and is designed to minimize negative side effects.
04.06.05	Current perspectives on the use of punishment-based procedures.
04.07. Contingency Systems	
04.07.01	Contingency systems (e.g., level system, token economy, response cost).
04.07.02	Components of contingency systems.
04.07.03	Application of contingency systems.
04.07.04	Progressive and conventional approaches to the use of contingency systems.
04.07.05	Conditions under which a specific contingency system may be more preferred or appropriate.
05. Content Area 5: Principles and dynamic application of behavioral tools	
05.01. General Teaching	
05.01.01	Interventions that ensure maximum learning opportunities.
05.01.02	Breaking skills down into their contextually relevant and necessary component parts.
05.01.03	Systematic development of skills.
05.01.04	Methods to promote generalization of acquired skills/behaviors
05.02. Prompting and Flexible Prompt Fading	

05.02.01	Prompting systems (e.g., flexible prompt fading, most-to-least, constant time delay) as they relate to ABA-based intervention.
05.02.02	Prompt types (e.g., model, positional, physical) as they relate to ABA-based intervention.
05.02.03	Challenges and methods to minimize prompt dependency.
05.02.04	Inadvertent prompts and their potential negative impact.
05.02.05	Application of prompting systems.
05.02.06	Progressive (i.e., flexible prompt fading) and conventional (e.g., most-to-least) approaches to prompting.
05.02.07	Strengths and limitations of prompting systems (e.g., flexible prompt fading, most-to-least, constant time delay).
05.02.08	Considerations for selecting prompting and/or shaping.
05.02.09	Conditions under which a prompt type or system may be more preferred or appropriate.
05.03. Shaping	
05.03.01	Components of a progressive approach to shaping (e.g., identifying next targets, increasing variability, expanding response classes).
05.03.02	Application of shaping (e.g., identifying next targets, increasing variability, expanding response classes).
05.03.03	Progressive and conventional approaches to shaping.
05.03.04	Conditions under which shaping may be more preferred or appropriate.
05.04. Task Analysis	
05.04.01	Components of a task analysis for a given skill.
05.04.02	Conditions under which a task analysis method may be more preferred or appropriate.
05.04.03	Methods to create a task analysis (e.g., watch an expert, complete task yourself)
05.05. Chaining Procedures	
05.05.01	Types of chaining procedures (e.g., forward, backward, whole task).
05.05.02	Application of chaining procedures.
05.05.03	Conditions under which a specific chaining procedure may be more preferred or appropriate.
06. Content Area 6: Progressive teaching procedures and approaches	
06.01. Discrete Trial Teaching (DTT)	
06.01.01	Components of a progressive approach to DTT (e.g., flexible rotation of stimuli, shaping attending, instructive feedback).
06.01.02	Application of progressive and conventional approaches to DTT.
06.01.03	Data collection procedures when implementing DTT based on relevant contextual variables.
06.01.04	Rationales for the components of a progressive approach to DTT (e.g., instructive feedback, flexible prompt fading).
06.01.05	Successive targets within the instructional period based on observation of the learner's current performance (e.g., success rate, attending, novelty).
06.02. Cool versus Not Cool (CNC) Procedure	

06.02.01	Components of the CNC procedure (e.g., correct and incorrect demonstrations, role-play, reinforcement).
06.02.02	Application of the CNC procedure.
06.02.03	Conditions under which the CNC procedure may be more preferred or appropriate.
06.03. Teaching Interaction Procedure (TIP)	
06.03.01	Components of the TIP (e.g., rationale, correct and incorrect demonstrations, role-play).
06.03.02	Application of the TIP.
06.03.03	Conditions under which the TIP may be more preferred or appropriate.
06.04. Incidental Teaching	
06.04.01	Components of incidental teaching (e.g., arranging the environment, following the client's lead, withholding access to potential reinforcers).
06.04.02	Application of incidental teaching.
06.04.03	Conditions under which incidental teaching may be more preferred or appropriate.
06.05. Observational Learning	
06.05.01	Components of observational learning strategies (e.g., observing a peer, providing reinforcement for engaging in similar behavior, vicarious punishment).
06.05.02	Application of observational learning strategies.
06.05.03	Conditions under which observational learning strategies may be more preferred or appropriate.
06.06. Group Instruction	
06.06.01	Key components of providing effective group instruction.
06.06.02	Progressive and conventional approaches to group instruction.
06.06.03	Roles (e.g., group leader, shadow support) and responsibilities (e.g., reinforcement, prompting, teaching) when implementing group instruction.
06.06.04	Teaching methods implemented within group instruction (e.g., choral responding, teaching interaction procedure, cool versus not cool).
06.06.05	Application of group instruction.
06.06.06	Conditions under which group instruction may be more preferred or appropriate.
06.07. Clinical Judgment	
06.07.01	Components of a progressive approach to ABA.
06.07.02	Procedures, results, limitations, and contributions of foundational and current pertinent literature on a progressive approach to ABA (e.g., Leaf et al., 2016; Lovaas, 1987).
06.07.03	Components of clinical judgment.
07. Content Area 7: Curriculum	
07.01. Curriculum knowledge and implementation	
07.01.01	Rationales for short (e.g., micro, small picture) and long-term (e.g., macro, big picture) goals.
07.01.02	Methods to facilitate generalization of skills to new contexts.
07.01.03	In-the-moment adjustment of program implementation.
07.02. Learning how to learn	

07.02.01	Key components and pre-requisites of learning-how-to-learn programs (e.g., responsiveness to contingencies, attention, tolerance of adversity)
07.02.02	Clients' current strengths and weaknesses in learning how to learn skills
07.02.03	Conditions under which refinements are necessary to learning-how-to-learn programs.
07.03. Academic	
07.03.01	Key components and pre-requisites for academic programs.
07.03.02	Clients' current strengths and weaknesses in academic related skills.
07.03.03	Conditions under which refinements are necessary to academic programs.
07.04. Language	
07.04.01	Key components and pre-requisites for language programs (e.g., expressive and receptive language, matching, non-verbal imitation).
07.04.02	Clients' current strengths and weaknesses language related skills.
07.04.03	Conditions under which refinements are necessary to language programs.
07.05. Self-Help/Daily Living	
07.05.01	Key components and pre-requisites of self-help/daily living programs (e.g., brushing teeth, making bed, showering).
07.05.02	Clients' current strengths and weaknesses in self-help/daily living related skills.
07.05.03	Conditions under which refinements are necessary to self-help/daily living programs.
07.06. Social	
07.06.01	Key components and pre-requisites of social programs (e.g., sharing, turn-taking, inviting a peer to join in).
07.06.02	Clients' current strengths and weaknesses in social related skills.
07.06.03	Conditions under which refinements are necessary to social programs.
07.07. Recreational and Leisure	
07.07.01	Key components and pre-requisites of recreational and leisure programming.
07.07.02	Client preferences and skills necessary to make decisions about leisure activities.
07.07.03	Developmental norms, age, and peer group appropriateness.
07.07.04	Conditions under which refinements are necessary to recreational and leisure programs.
08. Content Area 8: Intervention Planning Components	
08.01. Basic Concepts of Behavior Intervention and Support	
08.01.01	Proactive and reactive approaches to decreasing the probability of behavior.
08.01.02	ABA-based procedures and methods consistent with the least restrictive, yet potentially most effective intervention.
08.02. Functional Behavior Assessment (FBA)	
08.02.01	Variables that can influence the occurrence of a behavior (e.g., escaping demand, gaining attention, respondent behavior or access to materials).
08.02.02	Components of an FBA (e.g., interviews, observation, functional analysis).
08.02.03	Application of FBA (e.g., inform recommendations for behavior plan, determine functional replacement skills).
08.03. Functional Replacement Skills	

08.03.01	Appropriate skill(s) to teach based upon behavior function and goals (e.g., functional communication training).
08.03.02	Application of interventions designed to develop functional replacement skills.
08.04. Antecedent-based Procedures	
08.04.01	Antecedent-based procedures (e.g., restricting access, reducing demands, making accommodations).
08.04.02	Application of antecedent-based procedures.
08.05. Differential Reinforcement Procedures	
08.05.01	Components of differential reinforcement procedures (e.g., differential reinforcement of low rates of responding [DRL], differential reinforcement of alternative behavior [DRA], differential reinforcement of other behaviors [DRO]).
08.05.02	Application of differential reinforcement procedures (e.g., DRL, DRA, DRO).
08.06. Extinction	
08.06.01	Components, advantages, and disadvantages of extinction-based procedures.
08.06.02	Application of extinction-based procedures.
08.06.03	Conditions under which to implement extinction-based procedures and methods to mitigate possible negative side effects.
08.07. Response Cost	
08.07.01	Components, advantages, and disadvantages of response cost.
08.07.02	Application of response cost.
08.07.03	Conditions under which to implement response cost and methods to mitigate possible negative side effects.
08.08. Time-In	
08.08.01	Components, advantages, and disadvantages of time-in procedures.
08.08.02	Application of time-in procedures.
08.08.03	Conditions under which to implement time-in and methods to mitigate possible negative side effects.
08.09. Time-Out	
08.09.01	Components, advantages, and disadvantages of time-out procedures (e.g., exclusionary, non-exclusionary).
08.09.02	Application of time-out procedures.
08.09.03	Conditions under which to implement time-out and methods to mitigate possible negative side effects.
08.10. De-Escalation Strategies	
08.10.01	Phases of the escalation cycle.
08.10.02	Decision-making at each phase of the escalation cycle.
08.10.03	Conditions under which to implement de-escalation strategies.
08.10.04	Environmental factors that promote de-escalation.
08.10.05	Communications needed when implementing de-escalation strategies.
09. Content Area 9: Preparation, Decision-Making, and Analysis	
09.01. General Application	
09.01.01	Necessary methods to prepare for a successful teaching session (e.g., having all reinforcers, toys, and materials in working order, environmental set up conducive to learning).

09.01.02	Components of a successful teaching session (e.g., maximizing teaching time, balancing alternation of work and free time).
09.01.03	Teaching session analysis and making necessary changes to maximize progress.
09.02. Data	
09.02.01	Strengths and limitations of data collection procedures (e.g., discontinuous, continuous, estimation) and the conditions under which each may be preferred or appropriate.
09.02.02	Application of data collection procedures (e.g., discontinuous, continuous, estimation).
10. Content Area 10: Collaboration, Clinical Skills, Sensitivity, and Ethics	
10.01. Ethics	
10.01.01	Components of the Progressive Behavior Analyst Autism Council (PBAAC) Code of Ethics
10.01.02	Signal detection (i.e., identify variables that contribute to ethical dilemmas) as it relates to ethical contexts.
10.01.03	Common ethical errors and appropriate remedies.
10.01.04	The role of a human rights committee.
10.02. Socially Valid Outcomes	
10.02.01	Characteristics of socially valid outcomes (e.g., meaningful, long lasting, improves quality of life).
10.02.02	Procedures that are socially valid to relevant stakeholders.
10.03. Cultural Responsivity	
10.03.01	Cultural diversity, responsivity, and sensitivity.
10.03.02	Differing cultural variables (e.g., nationality, age, socio-economic status) and how they affect intervention decisions and necessitate adjustments to clinical practice.
10.03.03	Interactions consistent with cultural humility.
10.03.04	Cultural differences and how they might impact clinical decisions and practice.
10.03.05	Implicit bias, its effects, and how to mitigate implicit bias.
10.03.06	Neurodiversity and challenges/concerns facing the autistic community.
10.04. Caregiver Support	
10.04.01	Methods to discriminate among caregiver support, education, and training.
10.04.02	Components of caregiver support (e.g., affirmation, receptivity, follow-up questions).
10.04.03	Components of professional behavior (e.g., dress, affect, punctuality) that strengthen or weaken relationships with caregivers.
10.05. Professional Collaboration	
10.05.01	Components to develop successful professional collaborative relationships.
10.05.02	Application of professional collaboration.
10.06. Professionalism	
10.06.01	Components of working professionally with others using clinical sensitivity.
10.06.02	Breadth and depth of scope of practice.
10.06.03	Areas of need or continued growth.
10.06.04	Application of working professionally with others using clinical sensitivity.
10.06.05	Alternative perspectives about behaviorism and behavior analysis.

