SupervisorABA

BACB 4th Edition Task List Items

Content Area B: Experimental Design

| Item | | Description |
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| B-01 | Use the dimensions of applied behavior analysis (Baer, Wolf, & Risley, 1968) to evaluate whether interventions are behavior analytic in nature. | This seminal article sets the standard for all behavior analytic interventions. It is crucial for supervisees to understand the dimensions of ABA, and to apply these dimensions to research and to their own work. |
| B-02 | Review and interpret articles from the behavior-analytic literature. | These activities are designed to bring supervisees into contact with the research literature in such a way that they highlight and reflect upon the important elements of experimental design and evaluation of research outcomes. Supervisees should learn to become critical readers of research and should practice evaluating and comparing research articles. Depending on how well the supervisee performs these tasks, you may wish to repeat these activities across several exemplars to provide further training and generalization of research analysis skills. |

| Item | | Description |
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| B-03 | Systematically arrange independent variables to demonstrate their effects on dependent variables. | Understanding the relationship between independent and dependent variables, as well as the possible impact of extraneous variables, can help supervisees to understand the research that they read as well as to develop their own research projects. Research design allows for the arrangement of independent variables such that their impact on dependent variables can be observed, with minimal impact of other extraneous variables. These concepts can be discussed in the context of published articles or clinical situations, after reviewing several potential examples of each type of independent-dependent variable relationship. |
| B-04 | Use withdrawal/reversal designs. | Supervisees should have a good understanding of single-subject experimental design, even if they do not plan to conduct research. ABA withdrawal and reversal designs are among the most commonly used and powerful single-subject designs for demonstrating the functional relationship between independent and dependent variables. There are specific strengths and weaknesses of withdrawal/reversal designs that supervisees should be aware of, as well as variations on these designs. |

| Item | | Description |
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| B-05 | Use alternating-treatments (i.e., multi-element) designs. | Supervisees should have a good understanding of single-subject experimental design, even if they do not plan to conduct research. Multiple-treatment designs are an ideal alternative to ABA withdrawal/reversal designs when you are comparing the effects of more than one treatment, or when there are ethical or practical reasons not to withdraw or remove a treatment for an extended period of time. There are specific strengths and weaknesses of multiple-treatment designs that supervisees should be aware of, as well as variations on these designs. |
| B-06 | Use changing-criterion designs. | Supervisees should have a good understanding of single-subject experimental design, even if they do not plan to conduct research. Changing-criterion designs are used to assess the effectiveness of interventions by assessing levels of behavior change at different criterions. The logic of the design involves observing behavior change that tracks changes in the criteria. There are specific strengths and weaknesses of changing-criterion designs that supervisees should be aware of, as well as variations on these designs. |

| Item | | Description |
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| B-07 | Use multiple-baseline designs. | Supervisees should have a good understanding of single-subject experimental design, even if they do not plan to conduct research. Multiple-baseline designs are used to assess the effectiveness of interventions across different variables, including participants, responses, and settings. The logic of the design involves observing behavior change that tracks introduction of the intervention, and does not occur before the intervention is introduced. There are specific strengths and weaknesses of multiple-baseline designs that supervisees should be aware of, as well as variations on these designs. |
| B-08 | Use multiple-probe designs. | Supervisees should have a good understanding of single-subject experimental design, even if they do not plan to conduct research. Multiple-probe designs are a variation of multiple-baseline designs, which are used to assess the effectiveness of interventions across different variables, including participants, responses, and settings. The logic of the design involves observing behavior change that tracks introduction of the intervention, and does not occur before the intervention is introduced. Multiple-probe designs may be used when it is impossible or impractical to gather data during every baseline and treatment session, and when reasonable stability of behavior can be assumed. |

| Item | | Description |
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| B-09 | Use combinations of design elements. | Supervisees should have a good understanding of single-subject experimental design, even if they do not plan to conduct research. There are a variety of single-subject designs that have various strengths and weaknesses. Combining designs can be a good strategy for overcoming weaknesses and highlighting strengths of various designs. |
| B-10 | Conduct a component analysis to determine the effective components of an intervention package. | Many clinical interventions include multiple elements, which may or may not all be necessary for the success of the intervention. A component analysis is a way of experimentally assessing the effects of different elements of an intervention package. |
| B-11 | Conduct a parametric analysis to determine the effective values of an independent variable. | Many clinical interventions can be introduced at varying levels. A parametric analysis is used to identify the levels of an independent variable that will be effective for behavior change. |